# Myint Swe Khine Editor

# Handbook of Research on Teacher Education

Pedagogical Innovations and Practices in the Middle East



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# Part I The Middle East Perspectives on Teacher Education

## **Chapter 1 Teacher Education and Innovative Pedagogies for the Future**



**Myint Swe Khine** 

**Abstract** In the past decades, globalization has created competition among countries and affects every aspect of the populace. Each country requires structural changes, and the efficiency of education becomes a priority to face the challenges. The educational practitioners need to learn about schools' accomplishments in other nations to redesign their own system for competitiveness, align with national aspirations and economic development, and provide quality education for their citizens. When teachers are at the forefront of education reforms, well-trained and highly qualified teachers are critical to advancing the educational system and achieving the desired goals. Each country faces unique challenges in dealing with political, economic, and societal demands in their respective contexts. This chapter synthesizes teacher education endeavors in fifteen Middle East countries covered in this handbook.

**Keywords** Teacher education • Professional development • Curriculum • Challenges • Teacher quality

#### Introduction

The world today is becoming more complex, uncertain, and volatile. The recent pandemic taught us the lesson not to be complacent, expect the unexpected, and prepare alternatives. Educators face a daunting task in preparing the young generation in the age of disruptive world events. It is more challenging to train teachers who can guide students to equip them with knowledge and skills and survive in an increasingly ambiguous environment. It is undeniable that the most effective way to raise the education standards begins with teacher quality. The educational planners introduce notable reforms to streamline their respective education systems and emphasize teacher education. Each country needs to embrace political, economic, and societal demands in their respective contexts.

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Many attempted to conduct translational and applied research in education, but solutions to multifaceted educational issues are elusive due to the continually changing and developing environment. There is a greater need for forwardthinking and research-informed practices in teacher education if we are to succeed. This comprehensive volume includes emergent findings and promising results on teacher education, curriculum, assessment, teaching and learning approaches, pedagogical innovations and practices, and professional development in educating the next generation of students. Specifically, the chapters in this book cover investigations in improving teacher education by the educators for the educators in the Middle East region, including Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.

This volume is organized into five parts reflecting the status of research, innovations, and practices in teacher education in the Middle East. The chapters in Part I cover perspectives of teacher education in the region, and Part II presents innovations in teacher education. The chapters in Part III focus on subject-specific teacher education in various countries, and aspects of redesigning teacher education are described in Part IV. Finally, the chapters in Part V portray teacher professional development.

#### The Middle East Perspectives on Teacher Education

In Part I, teacher educators from Qatar, United Arb Emirates, Jordan, Yemen, Oman, Kuwait, and Turkey share their perspectives on teacher education research and development, teacher education system, structure, problems and opportunities, and historical account with contemporary implications in their respective countries. This part begins with Chap. 2 on "Teachers' Education in Qatar: Devolution and Decentralization." This chapter describes the background of the education system and phases of reform in Qatar. Qatar's education reforms consider teaching professional development essential for human development as such a holistic approach is used in preservice, in-service, and ongoing professional development programs. The authors also discuss decentralization of the educational system and how policy-driven reforms are improving the schools, and elaborate the pre-reform, during reform, post-reform scenarios in their context.

In Chap. 3, Amy Murdock presents a collective case study of expatriate teachers in the United Arab Emirates. The chapter begins by discussing the UAE Ministry of Education's reform effort called the New School Model (NSM) and the subsequent hiring of thousands of expatriate teachers from English-speaking countries. Despite the attractive salary package, many newly recruited teachers leave the job. In this case study, the author explores the root of the problem and discusses what motivates foreign teachers to take up the positions and the factors impacting teachers' decision to remain or resign from their services. The study explains the gap between expectation and reality and the role of cultural intelligence and culturally responsive teaching. Farouq Almeqdadi and Ali Al Zoubi from Jordan explain the Jordanian education system that has been developed since the foundation of the country in 1920. Chapter 4 elaborates the current education stages, schools and university education development, and research in teacher education. The chapter also presents special projects on teacher education such as Queen Rania Teacher Academy (QRTA), the pre-service teacher education with USAID, and online teacher education. The chapter concludes with the challenges and difficulties faced by the teacher educators in the country.

Abu Al-Kadi's Chap. 5 describes teacher education during turbulent times in Yemen. Yemen has been facing political disorder, armed conflict, and atrocities in the last few years, severely affecting education and schooling. The chapter commences with the historical aspect of the country's educational system and analyzes teacher education over the previous six decades. The chapter also identifies the problem areas and how education in the country can be enhanced through various means. The suggestions include combining formal and non-formal learning and encouraging private education. The author also proposes the future teaching training framework and optimizing the pedagogical changes. The chapter concludes with a discussion on implications for future teacher growth in the country. Sulaiman Al-Balushi, Aisha Al-Harthi, and Mohamed Shahat share their experience about teacher education in Oman in Chap. 6. According to the authors, teacher education went through different transformations in line with the country's political, social, and economic reforms. The authors describe teacher education's historical and contextual background and current practices using the retrospective approach. The chapter also identifies significant challenges and highlights the government regulations, curriculum, pedagogical approaches, and innovations. The chapter concludes with initiatives to measure quality assurance, international accreditation, and the process of recruiting prospective teachers.

In Chap. 7, Alsaleh, Alabdulhadi, and Alrwaished share insights into the education journey of teachers in Kuwait, beginning from choosing teaching as a profession and learning as in-service teachers. The chapter situates Kuwait Vision 2035, which stipulates education as a fundamental right of all citizens. The educational policies aim to train students to face the challenges in the real-world context and cope with changes brought about at local, regional, and international levels. The authors then present the teacher training programs in Kuwait at various institutions of higher learning. Public institutions such as the College of Education at Kuwait University, College of Basic Education affiliated with the Public Authority for Applied Education and Training (PAAET), and private universities such as Gulf University for Science and Technology provide preservice teacher training. The chapter proposes a model to improve Kuwait's teacher education that incorporates twenty-first-century skills. Yaylaci and Gumus describe teacher education in Turkey from past to present in Chap. 8. Their chapter highlights the importance of teacher education policies and implementation according to social, political, economic, and environmental needs. At the beginning of the chapter, the authors present the history of teacher education in Turkey dating back to 1920. The chapter elaborates the description of curriculum and assessment and evaluation and teaching and learning approaches in the teacher training process throughout the years. The final section of the chapter describes

the professional development for preservice teachers and introduces school-based professional development (SBPD).

#### **Innovations in Teacher Education**

The authors of the chapters in Part II share their experience relating to innovative practices in teacher education in the United Arab Emirates, Lebanon, Palestine, Saudi Arabia. Egypt, Bahrain, and Kuwait. This part begins with Chap. 9 on innovative practices implemented by preservice teachers during their field experience by Sandra Baroudi and Zeina Hojeji from Zayed University. The chapter starts with the description of field experience, also known as teaching practice, how this exposure to the classroom benefits the preservice teachers and highlights the challenges they faced during the face-to-face and virtual field experience. They also examine the preservice teachers' attitudes toward online field placement. The authors highlight the innovative practices preservice teachers implemented to overcome the challenges during the pandemic. In Chap. 10, BouJaoude and Baddour from the American University of Beirut present the teacher education programs in Lebanon and innovations in the past decade, spanning from 2011 to 2021. The authors critically review the literature and analyze the innovative practices implemented across teacher education programs.

The recent innovations and approaches to teacher training in Palestine is the title of Chap. 11. In this chapter, Sabbah and Albadawi note that the quality of education depends on the teachers' ability to innovate their teaching, improving educational standards. The authors discuss teacher education improvement projects, including mentor teacher training and Model School Network, and how international organizations such as UNESCO, World Bank, and USAID assisted in developing teacher education in Palestine. In Chap. 12, Al-Ghamdi from Saudi Arabia shares a case study on how student teachers develop teaching competency online. During the pandemic, many institutions engage the students with online teaching in teacher education programs, including field experience or practicum, which are traditionally organized in a face-to-face format. Al-Ghamdi's study involves 24 trainee teachers and four faculty members and examines how teaching competencies are developed and the advantages and limitations of online practicum.

In Chap. 13, Rezk Marey and Magd share their experience and lessons learned from Egypt's curriculum, instructional, and assessment reforms. The authors describe the nationwide education system transformation titled EDU 2.0, which emphasizes student-centered learning, skills, and values, which are less theoretical and more relevant to students' lives. The chapter also analyzes the restructuring of assessment methods to replace the memorization for tests and focuses on twenty-first-century skills and deep learning. The new system exploits the affordances of technology, and the development of the Egyptian Knowledge Bank (EKB) provides learning resources for all students. The chapter concluded with teachers' professional development to be involved in EDU 2.0 efforts. Hanin Bukamal from the University of Bahrain provides insightful information about teacher education development in

Bahrain in Chap. 14. The chapter begins with establishing the sole teacher training institute, Bahrain Teachers College, to transform the teacher training in the country. The chapter focuses on developing inclusive education and suggests incorporating inclusive philosophy and an integrated approach in preservice teacher education programs.

AlAjmi, Al-Mahdy, and Emam from the University of Kuwait explore the impact of pedagogical knowledge on novice teachers' perceptions of their ability to teach. In Chap. 15, the authors describe the preparation of teacher education in the country and the study plan in the colleges. The authors then examine novice teachers' pedagogical content knowledge (PCK) and how it impacts their teaching ability, using the Teachers' Perceptions of Pedagogical Content Knowledge (TPPCK) questionnaire. TPPCK measures teachers' knowledge, skills, and dispositions. This empirical study involves 306 novice teachers, and the majority of the participants are female. The study validates the questionnaire and found that novice teachers need more training to enhance their teaching ability. In the conclusion of the chapter, the authors highlight the issue of alternative pathways in initial teacher preparation in the country.

#### Subject-Specific Teacher Education

The chapters in Part III address the subject-specific teacher education training in various countries. In this part, researchers from Lebanon, United Arab Emirates, Yemen, Palestine, Kuwait, and Iran present their teacher education initiatives in mathematics, science, and language subjects. Hiba Naccache from the University of Qatar writes about the teaching practices and mathematics education in Lebanon. At the beginning of Chap. 16, the author introduces the background information of teacher trainees recruitment, including government policies, entry requirements, and mathematics teacher education program characteristics. The chapter also investigates the training programs' strategies, practices, and effectiveness in public and private institutions. The authors concluded that the training programs are not meeting the expectations for hiring and suggest effective training improvements.

Al-Jaro and his colleagues present their findings on students' perceptions of flipped classroom perceptions among university students studying English as a Foreign Language (EFL) in Yemen (Chap. 17). The study used a mix-method design combining quantitative and qualitative methods and involved 47 tertiary second-level students studying at a public university in Yemen. The study uses a Likert-type questionnaire to collect descriptive data and five open-ended questions to collect qualitative data. The results show that students are in favor of flipped classroom that assists them in developing writing skills. The authors offer practical implications and advantages that will be useful for English language teachers in curriculum design and teaching methods.

In Chap. 18, Bzour and colleagues from Palestine report their empirical study on understanding different modes of teaching science topics genetic material DNA for middle-school students. A total of fifty-eight students were exposed to three modes of teaching, traditional, partnership (co-operative), and modeling-based approaches. The study provides implications for the science and biology teachers. Alzankawi from the Public Authority for Applied Education and Training in Kuwait elaborates on the educational system and curriculum for the English as Foreign Language (EFL) program in her country. Chapter 19 begins with the historical context and development of the education system in Kuwait. The author further discusses the issues with writing in English among students and the curriculum for teaching English as a second and foreign language. According to the author, English has been placed priority in language learning due to historical ties with the UK and reliance on the oil industry to the extent that colloquially known as "petroleum English." The English language is dominantly used daily in commerce and business sectors. The author further explains the English language teaching in schools and the problem with writing in English, comparing differences between English and Arabic. The chapter provides recommendations for teachers, teacher trainers, and course designers of English writing to improve the current status.

The last chapter (Chap. 20) in Part III deals with the dynamics of language teachers' online interaction in Iran, reported by Nazari and Xodabande. In a small-scale in-depth study, the authors collected teachers' online exchanges and analyzed the communication pattern between teachers. The study uses Lave and Wenger's concept of identities-in-practice as a theoretical lens involving five randomly selected teachers, of whom two were females, and three were males. The study seeks to answer how language teachers connect with their colleagues online and what dynamics their interactions follow. The study establishes interaction patterns among the teachers' reasoning for engagement in online professional development. The authors suggest the importance of professional development among teachers to engage in Community of Practice (CoP) as articulated by Lave and Wenger.

#### **Redesigning Teacher Education—Challenges and Potentials**

The chapters in Part IV are concerned with redesigning teacher education programs and associated challenges and potentials in the Middle East countries. The chapters in this part extend our understanding of education systems in Iraq, United Arab Emirates, Qatar, Yemen, Syria, Bahrain, and Turkey and attempt to redesign teacher education. In Chap. 21, Professor Bartels from the University of Vechta, Germany, and Professor Vierbuchen from the University of Flensburg, Germany, share their teacher training experience in Iraq. In this chapter, they write approaches, challenges, and potentials in building an inclusive education system in Iraq. The authors observe that effort to enhance teachers' knowledge about inclusive teaching and special education needs has increased in recent years. In an attempt to redesign teacher education, the educational authorities in Iraq promoted pedagogical training that addresses inclusive education. The international project "Improving inclusive teacher education in Iraq" funded by the German Academic Exchange Service realizes the sustainable progress and stability in improving the situation. The authors present their findings to evaluate the success of the training in implementing inclusive education at the Iraqi teacher training institutions. Referring to the Leadership for Learning Theoretical Framework, Fred Conde from Zayed University in Chap. 22 examines the attempts at transforming education in the United Arab Emirates. The author notes that education in this country has been considered extremely important to transition from an oil-based to a knowledge-based economy. The chapter introduces the leadership for learning with a focus on learning through the introduction to professional standards, the launch of the teachers' licensure system, external environments that matter for learning, acting strategically and sharing leadership, creating coherence, and building professional communities that value learning.

Al-Thani, Chaaban, and Du from Qatar University describe Qatar's initial teacher education program in Chap. 23. The chapter introduces the historical, sociocultural, economic context, and political root of the country and analyzes the educational system's challenges and intricacies. The authors contend that linear perspectives do not address the complexities of teacher learning to provide evidence for the preparedness of trainee teachers. As such, the authors resort to complexity theory to reconceptualize the teacher education that considers complex dynamic systems. The complex dynamic system takes into account multiple overlapping and interrelating systems and contexts, including historical, sociocultural, economic, and political environments. The chapter concludes with suggestions for recontextualizing teacher education, addressing the problem of practice, and attending to the issue of fragmentation in their context. A group of international scholars, Muthanna, Alduais, and Ghundol, examine the challenges facing teacher education in Yemen (Chap. 24). They note that the turbulence in Yemen for the past decades is facing unique challenges in the education sector, including preservice and in-service teacher education in the country. Continuing conflict, coupled with political, economic, and societal unrest is resulting in poor quality of education. The authors attempt to critically review teacher education from a global perspective and identify key challenges in improving quality teacher education in the country.

Similar to the situation in Yemen, the education system in Syria is also disrupted due to severe strife in the country. Hadid and Hos, in Chap. 25, offer an account of building the EFL teacher pipeline amid the turbulence in the country. The chapter outlines the whole process of teacher training, both preservice and in-service, as well as professional development and challenges and obstacles teachers are facing. Bailey identifies the processes involved in preservice teacher education in Bahrain in Chap. 26 by reflecting on the revisions made in the undergraduate degree program. The author highlighted the importance of international benchmarking and cultural relevance in redesigning the curriculum. In Chap. 27, Tuncay discusses teacher education in Turkey and proposes redesigning the program by adopting a holistic approach and dynamic model. The author believes that such a strategy will allow teachers to be dedicated to the profession, progressive, knowledgeable, and stay relevant in their careers.

#### **Teacher Professional Development**

Chapters in Part V critically examine teacher professional development in Palestine, Saudi Arabia, Iran, and Kuwait. In Chap. 28, Silvia Nassar evaluates in-service teacher empowerment in Palestine, believing that teachers' perception of their role as constructive participants will impact learners' outcomes. The author also raises the issue of distinguishing in-service training and professional development. The chapter elaborates the distinctions between two types of programs and recommends improvements to empower in-service teachers in Palestine. Sultan and Althaqafi from King Abdulaziz University in Chap. 29 address the importance of reflection in the teaching profession and explain how reflective practices could help understand the significance of work and improve effectiveness. The authors then elaborate on a series of topics that are linked together. Among the issues are teacher agency through reflection and experiential learning, the influence of school climate in teachers' perception, the role of empowerment on teachers' reflections, the role of voice on teachers' reflective practice, and teachers' perceptions of their own identity and agency. Finally, the chapter concluded with the characteristics of the Saudi national curriculum.

In Chap. 30, Alijrish critically examines the teacher preparation and professional development programs in Iraq. The author opens the chapter with the concept, objectives, and methods of teacher preparation programs. The author further explains the system of integration, sequential, and competency-based teacher preparation programs in the Iraqi context. The chapter concluded with the challenges and changes all nations are facing, subsequently impacting, and the need to adapt the teacher preparations programs in the country. Similarly, in Chap. 31, Norouzi elaborates preparation of teacher knowledge base and professional development in teacher education programs in Iran. The chapter presents an in-depth examination of teacher education in the past few decades and discusses the implications and challenges in teacher education in the country. Finally, Al-Hashem from Gulf University for Science and Technology presents the need for national professional development to support sustainability among teachers in Kuwait. In Chap. 32, the author discusses the continuous professional development (CPD) program formulated under the School Education Quality Improvement Program, supported by World Bank, along with the five-year Kuwait National Education Development Plan. The author reviews the achievements and suggests ways to restructure professional development for sustainable growth.

#### Conclusion

The chapters in this handbook highlight the contemporary teacher education programs, pedagogical innovations, and practices. These reflect the current trends in fifteen Middle East countries. It is hoped that readers will benefit from the insightful accounts of teacher education endeavors described in this volume. The handbook

will add to our understanding and the complexity of teacher education that has been confronting educators in the past and will continue to challenge in the future. All the credits go to the contributors of this volume. Their steadfast commitments and constant efforts to improve teacher education are recorded in this handbook. The situation of countries in the Middle East region varies—some are peaceful and prosperous, some are in conflict and civil war, and many are in the shadow of the pandemic. Regardless of the circumstances, teacher education and schooling carry on with the resources available. Resilient and determination of the teacher educators overcome the deterrence to advance the knowledge of humankind.

## **Chapter 2 Teachers' Education in Qatar: Devolution and Decentralization**



Saba Qadhi and Huda Alkubaisi

**Abstract** This chapter opens with a contextual background focusing on the educational system and then the globalization and educational policy-driven reform that took place in Qatar to improve schools. This is approached in three interconnected phases: before, during, and post-reform. Qatar focused on education as the key to human capital development and as an important driver for its global presence. Given that teaching profession development has real importance for human development, the emphasis will be on providing a critical analysis of the national efforts that have been considered at the top level and that were inspired by developments within the global teaching profession. A holistic picture about the pre-service preparations and in-service on-going teacher professional development will be provided, aiming to offer worthy insights into the topic. As such, the chapter seeks to demonstrate that, while there has been an increased interest in the needs and experiences of schoolteachers in terms of continuing professional development, research in the Middle East and North Africa (MENA) region in this subject area remains limited.

**Keywords** Teacher education · Qatar · Human capital · Professional development · In-service · Pre-service

#### **Teachers' Education**

Education is an integral part of the social history age group. It gives a new shape to the state of mind for both individuals and nations. Education is essential to direct cognitive abilities in the right direction. An opinion without the proper knowledge and information will only be a blunt statement. Education provides the right amount of learning, analytical, and critical thinking approach to the learner. It enables him to build correct opinions based on facts. Such opinions can shape the generations in

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the right direction (Slavin, 2019). History shows that the great nations were built by the intellectuals and masters of their time (Sowell, 2012). They had the right way of thinking and led generations to the success that they now enjoy.

Teachers are the main stakeholders of the educational system. They directly engage with students and impact the physical as well as cognitive development of children (Zee & Koomen, 2016). Teachers' education is intimately connected with the social aspects of society. It is also conditioned by the cultural and characteristic events of nations. They direct the students about where they are, what they want to do next, and how they can get there. Teacher's education is a discipline concerned with educating the generations. The social reforms, political agendas, cultural preferences, and religious compensations are reflected in the educational system of the country (Bruns et al., 2019). Every state gives enormous importance to the policies of economic welfare; the education system strengthens the grassroots socioeconomic workforce of the economic development. Numerous factors affect education system, including the socioeconomic growth of the society, cultural growth of the community members, and the emerging political and social prosperity, or downfall in the governance system (Azfar et al., 2018). There is a need for an appropriate education system to provide perspective to the teachers. Continuous professional development is also required in the profession.

Teachers' education is based mainly on the six principles of knowledge, meaningful experience, personalized learning, community, critical reflection, and growth. The comprehensive, interdisciplinary, and updated knowledge is the core of teachers' Education (Biasutti & El-Deghaidy, 2015). The content is a central part of the system. What they learn and from where they learn are core aspects within this area. It requires a meaningful experience providing skill building. Teachers know the teaching strategies for diverse students to provide equal and accessible information. According to Jagger (2013), classroom ethics and learning strategies are essential to learning. A personalized learning approach will enhance teachers' skills to educate the diverse students as every student has different calibers of learning. As per the findings of Cohen et al. (2020), teaching candidates are expected to engage the students in direct immersion and simulations via multiple realities of the children, teaching, and the school system. Teachers are responsible for creating physical learning spacesbased economic workforce through the social and academic learning environment. They promote learning, intellectual reasoning, appreciation, imagination, and other aesthetic abilities in the students. Teachers' perspectives and teaching methods shape the philosophical learning in the students, requiring continuous professional growth.

#### **Human Capital and Education**

The 1960 theory of human capital determines that the productivity of the labor market is analyzed by the educational sector's growth (Marginson, 2019). The labor market earnings of corporations and the individual earnings are detrimental to the individual

or through workforce education. This is because the education system shapes individuals' cognitive, decision-making, and personal strengths of critical analysis. The public policies of social and economic development incorporate education as an essential pillar.

The Qatar National Vision 2030, under the reforms of strengthening human development, aims to improve the country's education and healthcare systems and youth development (Al-Kuwārī, 2012). The recruitment of the young workforce in the labor market is an essential component of human development. Social satisfaction comes from earning high salaries, which is achievable after educational development (Marginson, 2019). Social sector indicators of poverty, food security, educational security, and healthcare measures also affect the personal choice of getting an education.

#### Phase I (Prereform): Education System of Qatar

The establishment of the education system in Qatar goes back to 1959, by female educator Amina Mahmud, when the modern education system was introduced. Prior to that, Islamic education was available for both gender groups (Mustafawi & Shaaban, 2019; Roberts, 2014). Qatar is a Gulf State with an Islamic way of life and values that had the late bloom of the education system by Western education. In 1956, the Ministry of Education (MOE) was established, which enabled the first girls' school to be created alongside existing boys' schools in the country (MacLeod & Abou-El-Kheir, 2017). At that particular time, the teachers were "Traveler educators" who tour from one village to the other teaching language and religion without assurance of quality. Meanwhile, the external knowledge and skills they brought had contained many economic benefits for the community, yet the workforce was low and giant gap of skilled labor in the educational system was obvious.

Qatar has, however, experienced widespread change since the discovery in 1939 and 1971, respectively, of extensive oil and gas reserves beneath its land (Brewer et al., 2007). Many changes were considered that took the shape of social and educational reforms. The financial resources and support were extended. Explicitly, from 1970 to 1990 was crucial in the country's education development. Along with the establishing of many schools and unions, quality was also enhanced with the unified curriculum, teachers' education, and advancement of the professional leadership of Qatar with the global policies (Khodr, 2011). The Qatar government introduced many reforms to eradicate illiteracy. The visionary reform development included the expansion of schools, introduction of the Gulf Cooperation Council (GCC), unifying schooling by the unified curriculum of the schools, and enhancing gender unbiased school systems. The MOE also contributed to science education and research. Therefore, the need for teachers' professional development and training was imperative, leading to restructuring the education system and teacher recruitment. A major concern raised throughout the nineties regarding the need to reshape the educational system. The leadership felt that the existing education system was not producing the high-quality

outcomes and that it was rigid and resistant to reform. The idea of building independent school system with the greater autonomy of selecting the curriculum in mathematics, science, and Western educating models (Mustafawi & Shaaban, 2019) was a demand. The capacity of the knowledge-based and skilled human workforce can lead to better economic outcomes. It further leads to training youth under the college and university educations, making it accessible by incorporating financial resources for the students. In an effort to address some of the issues and problems schools face, "scientific school system" was founded to operate somewhat independently. These institutes were autonomous in selecting the English mode of discourse, the Western education system, and curriculums based on the other Western schools (Roberts, 2017).

In 1995, the country has witnessed reinvestment of oil and natural gas revenues that worth billions of dollars. This has changed the image of the state from a small Arabian Gulf country to a state with global prominence. Locally, rigorous reforms pertained to education and health care were initiated. Teachers are the necessary ingredient in the educational reform, and they had been called upon to meet and accommodate the needs of children. Many international and Arab teachers were assigned to the Qatar's schools and higher education institutions aiming to significantly achieve improvement of the system as a goal of the reform. In this context, the social–economic phenomenon of the national community has likely had considerable impact on the reform and the human resources.

The decade of 2000 was more reformative for the education system. The RNAD corporation ease established to reform the K-12 education system, primarily emphasizing the curriculum (MacLeod & Abou-El-Kheir, 2017). The 2001 initiative Education for a New Era (EFNE) implemented the Western system of education in the preschool system (MacLeod & Abou-El-Kheir, 2017). The other areas of reforms were to increase the school enrollment rate of students of all classes, the inclusion of Arabic, mathemetics, and science in all grades in 2005, and the implementation of independent schools at a large level. The National Development Strategy of Qatar (2011-2016) also incorporated education as an integral plan. The National Vision 2030 enhances the social, economic, and education sector's contribution and interaction. This vision aims to achieve sustainable economic, social, environmental, and human factors by supporting a strong bureaucratic framework and human development capital (Marginson, 2019). An efficient education system determines human capital development. The Roy model of 3D latent factor structure describes that the values of cognition, education, and non-cognitive skills affect schooling decisions and decisions in the general labor market (Kottelenberg & Lehrer, 2019). The likelihood of one getting the job and contributing to the labor market are higher after education. The education system also plays an important role in defining and discovering the cognitive skills of individuals.

The RNAD corporation-based recommendation for the curriculum in standardization for the educational courses requires a standard system of guiding the schools, curriculum, and assessment criteria (MacLeod & Abou-El-Kheir, 2017). The standard professional development of the teachers is also the target of RNAD recommendations. The governance proposed modifying the centralized Ministry structure

to be more adaptive and responsive to educational measures. It also recommends the school system be more decentralized with a charter of the school system. It will implicate the schools to provide vouchers to the families for enrolling the students in the schools. Implementing the new reforms will require the Supreme Education Council (SEC), the institute, and the evaluation institute (Nasser, 2017). The national education survey, based on the student's performance after implementing the RNAD, proposed educational improvement policies was conducted in the following years. The findings supported a lack of student support and less increase in the education index after policy implementations of RAND. In 2008, only a few students met the new education standard criteria, with 10% in English standard, 5% in Arabic, and <1% on mathematics and science subject standards (Al-Hammadi & Arabic, 2021). The Organization of Economic Cooperation and Development (OECD) annually conducts several social sector growth index evaluations and describes Qatar at the bottom ten within the educational index (Authorities & Council, 2021). K12 and kindergarten schools provided a significant part of education; preschool education was limited to private institutes.

#### Phase II (During Reform)

#### **Current Scenarios**

The education system of Qatar is governed by the SEC and the Ministry of Education and Higher Education. The independent schools established after the 1980s are overseen by the SEC, and the Ministry provides support to private schools. Primary education is mandatory for all children (Nasser, 2017). The education system is diverse in curriculum and teaching methods. Teachers are equipped and resourceful with learning training and continuous professional development opportunities. The Education City contains several universities providing higher education to national and international students. The school taught English, geography, and mathematics and science, with girls having a high turnout compared to the still present boys. Qatari government and its MOE view the English language as a crucial part of its overall growth. The native English language teachers employed at the institutes, primary, secondary, and higher, might not have enough language experience, fluency, and efficiency. Appropriate training, qualification, and experience are essential for learning. MENA, particularly Qatar, has fewer resources for education and professional training. The female training regarding language is nearly nonexistent. The current model of teacher recruitment needs to be revised as most of the teachers in the profession have a maximum of 3 years of experience. The dynamic and interactive learning model might enhance interpersonal learning skills and encourage students in the process (Qadhi, 2018). This paradigm shift of collaborative learning is the way forward in the reform of the social sector.

The COVID-19 pandemic disrupted the teacher leadership in professional learning and practice leadership abilities. The schools and community-based factors of the pandemic also impacted the leadership qualities and student learning outcomes (Chaaban et al., 2021).

After establishing the independent schools, the most significant step was changing and developing new curriculum standards in four subject areas: English, mathematics, Arabic, and science. Schools were allowed to develop curriculum that aligned with the national standards to promote schools' autonomy. All the teachers were given the curriculum choice to teach their respective programs and develop their curriculum accordingly. The teachers were overwhelmed by choosing to develop this process, and much of the curriculum was not up to the required quality needed to transform the educational system (Murphy et al., 2019). Teachers neither had the knowledge nor the proficiency and specific skills to develop a curriculum of teaching material. The principles of autonomy served to create an educational program accountable to the newly formed SEC.

The SEC was established in 2002 to undertake the transition toward the new system and oversee independent schools' administration and regulations. The Education Institute of SEC was made responsible for selecting the management of private companies to run schools according to the same settled standard for all schools developing the teaching curriculum and performance standards for teachers and starting to provide professional development courses for school staff. The Evaluation Institute developed independent assessments to monitor students and school performance; however, the Education Ministry had no direct influence and control over the newly established school. The Ministry retained control over the other schools until they were transformed and capable of being independent schools. These two school systems were run parallel until 2010; all the Ministry Schools were transformed into independent schools. However, today the MOE and higher education department has no executive powers to control the independent schools.

In addition to the SEC, the Qatar Foundation for Education, Science and Community Development was established in 1995, which worked for curriculum diversity and promotion of scientific education within Qatar. It is also affiliated with the Education City providing higher education to regional students with foreign skilled teaching labor force (Crist & Powell, 2017).

The history of Qatar was rigid in the language used with the sociocultural transformations of the region. The contemporary linguistic diversity was adapted after the mobility, integration policies, and exchange of the communities in terms of increased political and economic relations (Hillman & Ocampo Eibenschutz, 2018).

The RAND Corporation, in 2001, started their formative K12 pogroms of school systems that ensued multiple changes in the education curriculum and teacher's mode of teaching. Simultaneously, ENFE was working to incorporate Western education in the preschool system to improve the grassroots-level education system. The K-12-driven reforms are still practicing the Arabic language in the public schools. One main aspect of the Qatar reforming agenda is the teacher education and reforms to the targeted improvement of the school system.

#### The Education Scenario in Other Gulf Countries

Gulf countries' economic prosperity started with the discovery of oil in 1973, and the same also occurred for Qatar. Qatar bloomed late among the Gulf countries but had a massive economic, social, and demographic surge. The establishment of the Gulf Cooperation Council (GCC) imported an enormous import of skilled manpower from Western countries. This workforce was to participate in Gulf countries' education, health care, and social sector development. Teachers imported from foreign countries were given higher wages and incentives with blue-collar jobs (Rajan, 2018). The South Asian countries also provided massive manpower to this region and contributed a large part to the economic and social development of the region as well.

According to Bhadran and Badran (2019), the MENA region's educational finances are poorly managed into four categories. Firstly, primary education is accessible in all Gulf counties with monthly subsidy allowances of living expenses for higher education students. The second category of educational institutes includes countries like Egypt, Syria, Yemen, Iran, and Alegria. This category's institutes provide free education on levels for those with socialist doctrine. The political influence of the socialist regime affects the quality of education in areas with the higher priority of expenditure to defense and social subsidies compared to the educational and social departments. The third category institutes are those in states which lack resources like Jordan, Lebanon, and Palestine. The poor resource availability requires higher tuition fees within the universities, although school education is free. The administrative tuition costs are not met either. The fourth category is private institutes, licensed by the higher education Ministry with a continuous audit and quality assessment of the educational measures. Gulf countries' preferred private institutional establishment for education has supported a significant role in uplifting the education level within these countries.

#### **Devolution and Decentralization**

The globalization of the education approach requires a decentralized education system to ensure the autonomy and willingness to contribute and practice the global strategy in the education system. The decentralization of the public sectors of social welfare, like education, health, and banking, enhances the country's internal revenue and economic investments. Western countries preach decentralization of the education or social sector improvement reduces its efficiency. The centralized system is also unable to meet the challenges of the economic expansion of a state. (Romanowski & Du, 2020). The policy-makers of the international education system argue that the decentralized education system improves the efficiency, accountability, monitoring, effectiveness, and decision-making ability of both central and local authorities. According to Romanowaski and Du (2020), the decentralized education system also improves

the autonomous powers of the local bodies and school administration. Hanson's evaluation shows that the Global South has various organizational values from high to low and in between. The most often reported reasons for the outsourced education reforms include that of indigenous community, goals, strategies of the government, and cultural practices.

#### **Globalization and Educational System**

The globalization of the educational system has been developing in the worldwide movement providing a universal transfer of information, academic policies, resources, and research practices (Warde et al., 2018). Education globalization aims to promote the safe transfer of authentic education strategies and transform societies into a universal community with common aims, goals, and perspectives.

Globalization of education can be adapted by shared language, communication, curriculum, decision main, system efficiency, and resource provision.

According to Warde et al. (2018), the common language in medical or non-medical education enhances the safe delivery of information and services. The communication gap will be reduced by incorporating research and strategies used in the educational system. Cultural diversity can also be transferred with the adoptive notion of "dialogue among civilizations" as the basic framework for communication. It will provide a genuine openness and intelligence-sharing environment (Wang, 2019). According to Leišytė et al. (2021), the globalization of educational sectors, specifically higher education, will enhance the cooperation of students, critical thinking, diversity, and analytical attributes among students and teachers.

#### Key Global Drivers of Education Policy

The key global drivers of the education policy are determined as being: culture, economy, type of government, and political and social movement-based aspects—these drivers impact service provisions within the educational system. Moreover, as Sawalhi and Sellami (2021) describe, teachers' leadership qualities and perception of the public schools' (government-funded or private) factors influence their characteristics. The nationality of teachers and knowledge-sharing expertise also affect knowledge provisions at the public sector schools. Western schools-based teachers provide more diverse knowledge and adapt various classroom strategies. However, national teachers are only influenced by wages and possible incentives. The qualification of teachers can drive their perceptions in productive ways. Highly qualified teachers have more efficient learning and teaching aspects as compared to the less qualified teachers.

#### Access to Education Among Gender Groups

Education in Qatar is available for all, and primary and secondary education is compulsory and free in public schools. The constitution supports providing resources for educators in physical structures and academic resources to enhance the literacy rate between both genders. However, boys' schools were already established long before 1948 and after the first girls' school in 1959, and public education was uplifted to a holistic level. Education for all was the motto behind this change. The literacy rate of the overall population has been higher than 93% since 2007. The literacy rate of women has also increased from 90% in 2007 to the 94.71% in 2017, which is also higher than the overall literacy rate of 93.46% (Al-Hammadi & Arabic, 2021).

#### **Educational Policy-Driven Reforms in Qatar for Improving** Schools

The improvement of education in schools requires a critical approach from teachers in the learning system. Project-based learning is incorporated in the national educational policy that likely enhances teachers' readiness to be implemented within primary schools. RAND and ENFA supported the analysis of previous education systems under the centralized control of the government for financial and monitoring purposes which highlighted several shortcomings. These issues were mainly in terms of quality as the Qatar government started institutionalizing reforms, building new schools, rural school systems, etc. At the same time, the quality of education via curriculum, teacher, and resourceful technology was not highlighted.

The RNAD analysis for the current system emphasizes that poor performance of the system was because of the government's rigid reforms, sticking to the Islamic and conventional education. According to Abou-El-Kheir (2017), the government lacked the vision and future goals for education quality and focused on quantity. The centralized MOE failed to provide quality education throughout the country. The system was unchallenging and was based on memorization, without any critical thinking and strategic teaching. Performance indicators set by the government for teachers' performance and student outcomes were also poor. Teachers' dissatisfaction toward the job and the school system was high, as the wages were low and because associative resources of education were scarce. Teachers often had to invest into the infrastructure of the buildings of schools. Schools lacked basic infrastructure, boards, and books as well, which added fuel to the fire.

Later, the year 2001 led to an improvement in the education system by the Education for New Era (EFNE), which developed an education system meeting the needs of the country's education system. The new system must understand the constraints and challenges of social and economic nature and formulate a mandatory program. The students coming out of the new education system will be capable of investing in the financial pool of the state. The RNAD proposed options to accept the decentralization of the educational system with the new regulatory body acting in parallel with the MOE and which was open to innovations by the school operators.

#### **Teachers' Professional Development**

RNAD highlighted the shortage of enthusiastic teachers as one of the inefficiencies for the current educational system (Abou-El-Kheir, 2017). Teachers are aware of the international standards of education and possible solutions to build a solid curriculum-based education system. However, the personal autonomous willingness to contribute can lead the current approach to global benchmarks. The social and educational development of teachers requires production, practice, and experience in multiple sectors. The journal writing-based pre-service teacher practice enhances the personal reflection of language and discourse. The educational institutes use English as a mode of teaching and learning. Journal writing enhances language skills, specifically in a diverse classroom with multiethnic students (Barham, 2020). The pre-service practice requires teachers' self-efficacy, professional formation, as well as experience. Within this context, writing practice is an essential implication of teachers' professional development. Similar language practice can be adapted for languages other than English as well.

Schools and academic learning require problem-solving attitudes and skills. The strategies of learning are based on elementary pre-service mathematics problems. The arithmetic calculations, as well as drawing strategy, will build the personal, analytical, as well as problem-solving mindset and professional skills. It will also build classroom discussion strategies based on "solving the problem," "guess and check," "looking for a pattern," "backward words," and organizing data methods (Bawaneh, 2020). Qatar schools have changed the dynamics regarding the traditional student-centered inquiry-based learning (IBL) approach to the teacher-centered professional development approach. This approach uses WebQuests as a tool with classroom support in mathematics and science students of grades 4–8 (Calder et al., 2020). The WebQuest didactic tool-based learning improves classroom behavior, integrated IT learning, and professional subjective learning among students.

Teachers' need for jobs satisfaction, skillful training educational curriculum, and personal growth requires the government of Qatar to address multiple solutions. The evidence supports that teachers' satisfaction with professional development programs based on gender, experience, and region enhances satisfaction from the job. It can lead to new training patterns for teachers related to the school environments and professional learning societies (Barham, 2020). The Government of Qatar has started the concept of mathematical proficiency under the National Research Council that is based on five strands: conceptual understanding of the subject matter, fluency in the procedural process, strategic competency of the process, adaptive reasoning of the subject, and productive dispositioning (Bawaneh, 2020). These strands analyze teachers' abilities, as well as provide basic mathematical proficiency.

The collaborative working environment in pre-service enhances the personal efficiency of teachers in professional development. Social capital is an essential aspect of growth among teachers. Building a significant pre-service relationship between teachers' social capital and performance levels enhances the professional competency and mediates students' social capital (Civis et al., 2019). It provides a supportive learning environment, within internship schools training the teachers accordingly.

The reflective journal is an efficient strategy to enhance students' learning, writing, skills building, and performance. It also enhances the skills of teachers in all aspects along with the relevant professional development. The Qatar schools implemented reflective writing for students and teachers to improve learning outcomes regarding the profession and general learning. The analysis for the student-based survey of the indicative strategies for enhancing the learning deduced that gradual learning, discussion-based class events, comprehensive checking, exemplification, and collaborative learning graphical aids are better ways of teaching (Ahmed, 2019). These tools can identify teachers' effectiveness in the classroom. Students' feedback of the classroom events and frequent questioning techniques enhance the engagement of both teachers and students in the school. The learning aids in the form of mock tests, graphical displays, and handouts which also promote learning. However, the learning challenges of interruption from environmental events, the lack of electronic devices by the teacher, and classroom mismanagement are also evident. Continuously ringing mobile phones, disruptive students, and a lack of learning aids compromise the learning outcomes in the classroom (Peled, 2021).

MENA region has been introducing collaborative learning in academic courses. Telecollaboration learning requires professional training from both students and teachers. The higher institutes in Qatar, explicitly engineering students, engage most often in the online teaching with their service teachers who are also enrolled in similar courses within other US-based universities. Such collaborative learning via technology enhances communication among peers and teachers and fosters intellectual learning in MENA (Eslami et al., 2019).

According to Hassanein et al. (2021), the primary and secondary education teachers' training and in-class practice of the combined teaching methods are effective. The information-based instructions and fieldwork experience in teachers' education enhance teachers' perspectives toward inclusive education standards. SEC emphasized informative learning of the students for a comprehensive educational system. It requires fulfillment of the ethical and legal requirements of education for all. The SEC lead RTI model or framework supports teaching and learning for the students with disabilities in the Qatari independent schools. The additional e-education support needs to identify the requirements of educational policies to ensure education system efficiency. Du et al. (2020) established that the active learning strategies in teacher preparation programs are a convenient mode of education. The passive mode of learning and teacher instruction for classroom management effectively manages class activities. The recruitment of teachers on the proposed common characteristics will also enhance professional development within the schools (Abu-Tineh, & Sadiq, 2018).

#### Phase III (Post-reform)

A powerful policy has the analytical resources for encountering the dynamic aspects of the nature of production and the outcomes of the procedure (Heimans, 2012). The reforms of RNAD corporation related to decentralization and curriculum change can effectively improve the student performance index. The Global Education Vision, followed by Qatar's SDG of education enhancement in Qatar's 2030 vision, will ensure the financial, cultural, and economic involvement within the economic sector. The public and private partnership on educational transformations and globalization will be enhanced in the visual outcome. The K-12 educational reforms of Qatar emphasized English as a language of discourse and curriculum in the National primary and secondary school system with autonomous status (Abou-El-Kheir, 2017). It will promote multilanguage education, increased communication means, and integration for the foreign or Western curriculums.

According to the analysis of the current educational reform impact, significant changes have been made in the organization of schools' staff since the last decade to improve the overall academic performance of school-aged citizens. The teachers must be encouraged to move from an educational mode of instruction that a teacher leads, to one that is focused on students being guided by the teacher. Such a system enables the students to develop critical thinking, problem-solving, investigative skills, and inquiry skills. In this article, we will discuss the previous and current educational changes and developments in Qatar, emphasizing initiatives taken regarding chemistry that better explore local utility and cultural transferability with students' learning approaches. The main focus was on how students' understanding of scientific concepts and their self-efficacy and attitudes could be improved. The current activities described in this article can be argued over with regard to how the developments and commitment in the educational system of Qatar can be a guide for other nations who intend to take such initiatives, moving from traditional teaching to a more student-focused approach (Qureshi et al., 2016).

Qatar is a small wealthy state in the Arabian Gulf. In the last 20 years, Qatar has made some extraordinary transformations in its different systems and education. The educational system of Qatar has undergone the most radical changes and development. At the end of the century, Qatar's K-12 public schooling system underwent many reforms. In 2001, the Qatari government-appointed Corporation "RAND" to analyze and recommend modernization changes and improve their local K-12 system. Many recommendations were made, including introducing an independent model of school and an initiative to reform the educational system called "Education for a New Era" (EFNE). They included the English language as a medium of instruction at all K-12 public schools (Abou-El-Kheir, 2017).

Student performance evaluated by their ability to ask questions and use critical thinking in the tasks is detrimental to the effectiveness of policies within nonlinear social events. As Al-Hail et al. (2021) described, the educational goals in collaboration with the SDG-driven performance evaluation framework are comprised of multiple factors. It measures the dictation literacy other than the conventional writing,

reading, speaking, arithmetic, and root memorization strategies. Education aims to use information, digital media, to be creative, to have analytical thinking, and ensure innovations in daily life. The set educational goals will increase the information and knowledge for science, mathematics, language, geography, and history. Incorporating academic skill training for both students and teachers like soft skills, technical skills of communication, teamwork, software, programming, graphical designing, etc., will provide diverse knowledge. The 2030 vision aims to build an efficient economic class with knowledge and skills through active and passive learning methods. Human capital development can be achieved by integrating the practical and theoretical approaches to learning. The educational goals are incomplete without ethical and behavioral grounds. Education is a social event, and it has been driven by the cultural, traditional, and religious values of the families and individuals. The integration of these educational goals is required for students' and teachers' professional development.

The decline of public prices triggered in 2014 emphasized upon the structural characteristics of the economy to be compromised. The post-2017 Gulf crisis because of the political upheavals and entrepreneurial wave of capitalism in the region has been aggressive. It can also impact the regional educational institutional performance (Gray, 2021). This is because the analysts described that the political and economic conditions of a state impact the social sector and departments of the country.

#### Technology

In 2021, Qatar Government started the inclusion of IT technology to promote and debate the textbook style performance on media platforms. It will directly link technology education to every home (Authorities & Council, 2021). The implementation of technology-based program requires leadership and skilled radical training sessions to help improvement regarding the current status of technology-based learning (Veillard et al., 2018).

The National Government's sustainable goals of education under the Qatar Foundation vision for 2030 require a "sustainable curriculum" proposed by the initial RNAD proposal. It will lead to a sustainable educational system's development. The term "Education for Sustainable Development (ESD)" is used to highlight the developing strategies. It is aimed at galvanizing the minds, hearts, and actions of future generations. The state's partnership with UNESCO for the 17 sustainable development goals promoting ESD across the K12 levels was included as their curriculum can address the recent gaps of the educational system. This vision entitles the integration of capacity regarding teachers' skills and knowledge, financing the resources for schools, technology provision for the teachers, schools, and students, and building the infrastructure according to global standards. The SDG based on 17 points will enhance the curriculum, as well as teacher training aspects.

Remote collaboration on the different teaching philosophies enhances the cultural blending of teaching services as well. Such a method of teaching will be more efficient. This is because the equity of Western and non-Western teaching modes grounds strong decision-making.

#### **Needs and Experiences of School Teachers**

The illustrations of current findings indicate that the literature is limited in reporting the personal experiences of teachers. Increasing the dimensions of research to the teachers and student said perceptions of the educational system would provide a better qualitative analysis of the current reforms and policies. The decentralized government policies of education have been influential in the international educational systems. The economy of Qatar is thriving with continuous ups and downs of the oil economy that have taken place recently. There is a lack of analysis regarding the resources necessary for Qatar's institutes. The literature findings are also limited in highlighting the possible solutions for the system. The challenge of the centralized educational system needs diverse and significant resources. The lack of monitoring tools is also evident within this aspect. Programs and implementation bodies cause a further gap in describing the education system, which must be overcome. The factors related to students' and teachers' education growth in the Qatar institutes can be indicated through potential policies and reforms. Exploring teachers' triggering factors in learning and teaching philosophies will elaborate on their better roles in the classroom. The future reformative and policy-makers will benefit from addressing the gaps in the educational system and the literature.

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# Chapter 3 Teacher Retention in a Dynamic Cultural Setting: A Collective Case Study of Expatriate Teachers in the United Arab Emirates



### **Amy Murdock**

Abstract Since the United Arab Emirates' (UAE) Ministry of Education (MOE) established its most substantial reform effort called the New School Model (NSM) in 2009, the Abu Dhabi Education and Knowledge has hired thousands of teachers from English-speaking countries. Due to its generous compensation packages and geographic location, the UAE has become a coveted choice for expatriate teachers, where over 2000 American teachers are living and working. Despite its initial attractiveness, hundreds of expatriate teachers resign from ADEK schools every year sometimes even before their contracts are fulfilled. The question of teacher retention in the UAE has become one of policy significance; a number of studies have pointed to high turnover rates in private schools and low retention in public schools due to attrition. This case study includes a discussion of what motivates teachers to immigrate overseas despite the financial and emotional risks, what factors impacts a teacher's decision to remain or to resign, and the role culture plays in these decisions. The study suggests that the disconnect between vision and reality resides in how teachers are recruited, how teachers are subsequently treated, and why certain teachers adapt while others do not, such as the role of cultural intelligence and self-efficacy.

Keywords Teacher reform  $\cdot$  Case study  $\cdot$  Self-efficacy  $\cdot$  Cultural intelligence  $\cdot$  UAE

## Introduction

Intercontinental mobility facilitated by global economies has created a rise in selfinitiated expatriation (SIE) (Jokinen et al., 2008). Research on the transformation and internationalization of labor markets refers to the phenomenon of mass expatriation and the subsequent transnational pool of labor as a "global village" (Black et al., 1991). One popular overseas destination for American expatriate teachers is the United Arab Emirates (UAE). Due to the UAE's focus on international education

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reform measures, the country's Ministry of Education (MOE) must attract highquality candidates by offering generous employment packages which can compete with local and global institutions; the country has as a result become a destination of choice for expatriate teachers from around the world (Muhammad, 2014). For individuals seeking career advancements or the thrill of living and working in a country with cultural facets far different from their own such as the UAE, having the option of career mobility without the limitations of geographic boundaries is highly advantageous. However, the costs of losing one of a country's most valued exports—its teachers—is multifold and with some unexpected consequences, which can be significant on both a macro- and microscale (Takeuchi et al., 2002).

Mass expatriation of effective American teachers inflames the struggle of educational institutions to "recruit and retain top quality candidates" (Hechanova et al., 2003, p. 214); American teacher retention and attrition has been a subject of concern for state and federal policy-makers, boards of education, and individual institutions for many years. Research examining the issue of retaining effective educators has employed a variety of perspectives at the K-12 level (Shen, 1997). At the higher education level, the issue of faculty retention is compounded by efforts to develop and sustain a diverse pool of faculty members, especially women and underrepresented minorities (URM) (Ireland et al., 2018; O'Brien et al., 2015).

While the relative ease with which teachers migrate through cultures and economies takes its toll on American educational institutions, the rich cultural interactions these teachers experience may have far-reaching, practical, and theoretical implications from which American systems of education may learn. Comparative research suggests idea-sharing between different cultures can and should be a strategy of any country aiming to improve their educational outcomes (Burdett & O'Donnell, 2016; Sahlberg, 2017). The phenomenon of SIEs is a relatively new field of comparative theory and expatriation studies (Baruch et al., 2016; Howe-Walsh & Schyns, 2010; Inkson & Myers, 2003; Myers & Pringle, 2005). SIE research is an important contributor to the field because it is from comparative, cross-cultural studies factors impacting the degree of the expatriate adjustment may be identified and applied elsewhere.

This study sought to add to the SIE literature by exploring the experiences of American teachers who initiated their own cross-cultural expatriate experience in the UAE in order to identify (1) why American teachers leave their American teaching positions to endure the unknown; (2) what factors make American expatriate teachers remain or leave their overseas positions; (3) the role cultural intelligence and self-efficacy play in American expatriate teacher adjustment decisions, and (4) possible implications for American institutions.

## **Literature Review**

## The United Arab Emirates as the Context for Studying American Expatriate Teachers

Strengthening higher education institutions is central to building an internationally competitive knowledge-based economy (Asian Development Bank, 2011; World Bank, 2000). The Global Education Reform Movement (GERM) (Sahlberg, 2011) is driven by high stakes standardized testing, international competition, performancerelated pay, market-driven mechanisms, and corporate capitalism and privatization (Little, 2015). One of the primary goals of the UAE is to grow their economy into a competitive player in the GERM movement; there is much at stake for the young country, as their population growth rate is one of the fastest in the world (CIA World Factbook, 2017). In spite of the country's national initiative for more citizens (Emiratis) to join the workforce in both the public and private sectors, with the aim of pioneering the nation's shift to a globalized, knowledge-based economy (Abu Dhabi Economic Vision 2030, 2008), currently more than 80% of the labor force in the UAE is made up of expatriates. Emirati Nationals only make up 10–15% of the labor market (UAE National Bureau of Statistics, 2010). As part of the UAE's efforts to diversify its economy and emiratize the workforce, there is great demand for higher education for Emirati citizens (ADEC, 2012); however, because of the lack of qualified educators the vast majority of instructors at local universities are foreigners (Austin et al., 2014).

The Challenges of Teaching in the UAE: The mission of the MOE in bringing foreign, English-speaking teachers to the country is for these expatriate teachers to lead Western-influenced reform efforts. Research attempting to understand the high teacher turnover rate in the UAE describes the constant reform changes and its resultant impact on teachers. Teachers expressed mental and psychological exhaustion from constant and imposed change, which creates a resistance toward reform initiatives (Ibrahim et al., 2013). Imposed, unclear and regular changes in the educational system as a contributing factor toward stagnated academic progress in the UAE are a common motif in the literature Gaad et al., 2006; Organisation for Economic Co-operation and Development, 2015; Tabari, 2014). When communication lacks structure and cohesion, instability often follows (O'Sullivan, 2015).

To fully understand the adjustment experiences of American expatriate teachers in the UAE, it is necessary to also fully understand the depth of the challenges these teachers face while living and working in an Arabic country dominated by expatriates. In addition to systemic inconsistencies, the sociocultural variances between teacher and student are comprehensive and multidimensional (Aleya & Shammas, 2013). Dutch social psychologist Geert Hofstede is considered the global expert on defining culture. In his seminal work, *Culture's Consequences* (2011), Hofstede published the findings from his five-year analysis of data mined from a massive database of employee interviews and surveys regarding people's behavior in large organizations around the world. Hofstede's breakthrough was discovering patterns in responses are distinguishable by culture. On Hofstede's Cultural Dimensions scale, the UAE scores high on the Power Distance and Collectivist dimensions, and low on the Individualism dimension. This means that in the UAE people generally accept a clearly defined hierarchy of power: Inherent inequities and subordination are culturally assumed. The culture is also group-minded, meaning socially bound loyalties are powerful commodities influencing every aspect of individuals' lives. The UAE's cultural dimensions are in direct opposition to that of Americans who score high on individualism and low on power distance.

Language is also a major issue for expatriate teachers in the UAE. English has historically played an essential role for the modernized Arab world. However, English—and the values it represents—has become a controversial issue within a culture dominated by Islamic traditions (Al Mahrooqi & Denman, 2015). English as the primary language through which content is delivered presents significant impediments for both teachers and students (Belhiah & Elhami, 2014). Expatriate teachers must provide instruction to students who often are only communicating in English at school; English has in this way become a political issue—a symbol of a dramatic cultural crossroads (Ahmed, 2010). The types of pedagogical skills and cultural sensitivity required for expatriate teachers to be successful in such a complex setting are a subject of this study.

#### Self-initiated Expatriation for Teachers

Previous SIE research has approached the topic from a corporate, human resources standpoint seeking to understand current individually initiated mobility trends (Banai & Harry, 2004; Carr et al., 2005; Crowley-Henry & Al Ariss, 2018). Little research covers the SIE teacher experience and the SIE American teacher experience in the UAE. What research does exist on the SIE teacher experience suggests that the type of individuals seeking overseas employment are highly skilled and drawn to the personal and professional growth opportunities international assignments offer (Dickmann et al., 2018; Peltokorpi & Jintae Froese, 2009) which helps explain why the thousands of SIE individuals traveling around the global economy are sometimes referred to as "global talent" (Habti & Elo, 2019, p. 5). Individuals drawn to the experience of travel and sustained, long-term employment are identified in the research as being in possession of a set of self-regulatory personality traits, as well as intercultural capabilities (Presbitero & Quita, 2017) which make them a distinctive and universally sought-after population of workers.

SIEs are distinguishable because they organize their own international assignments, as opposed to being assigned by the company or organization (Selmer et al., 2017; Suutari & Brewster, 2000). SIE comparative research remains in the beginning stages of development; much of the scholarship in this area attempts to define the individual demographics of this population, such as marital status, professional and previous expatriate experience, nationality, as well as motivational factors such as family and personal finances (Aragão, 2017). The degree to which the expatriate

adjusts appears to be influenced by a variety of contributing factors, such as prior knowledge of the host country, prior experience working overseas, language proficiency, and ability to adjust to the host country's cultural norms (Isakovic & Forseth Whitman, 2013; Takeuchi et al., 2002). This study sought to connect the expatriate and the expatriate's experience with their capacity to culturally adjust.

In the literature, SIEs are presented as adept and mobile and represent an important segment of the international workforce (Ceric & Crawford, 2015). For this reason, the phenomenon of SIEs is an important subgroup to understand for the potentially devastating impact the loss of these individuals may have on a home country's educational and economic development. For SIE teachers traveling to the Middle East, motivational factors are also economic in nature, including career advancement opportunities, financial rewards, and other types of remuneration (Baruch & Forstenlechner, 2017; Schoepp & Forstenlechner, 2012).

## Cultural Intelligence and SIEs: Implications for American Educational Institutions

Cultural intelligence (CI) can be defined as a set of metacognitive, cognitive, motivational, and behavioral capabilities in which the individual displays a high competency of cultural knowledge and adjustment behaviors (Van Dyne et al., 2015). Research often links CI to the SIE experience. Individuals who score high on the CI scale are more likely to have both the willingness and capacity to organize their own overseas assignments. Interestingly, the preponderance of the work on CI has focused on the adjustment experiences of women (den bergh et al., 2016; Myers, 2016; Schreuders-van den Bergh & Du Plessis, 2016). Possessing elevated levels of CI places individuals in economically fluid positions; in addition to being better able to adjust to foreign environments, SIEs with high levels of CI have been shown to have advanced levels of career adaptability (Al Ariss et al., 2012; Presbitero & Quita, 2017).

CI often emerges as a compelling indicator in research on the socio-relational intercultural effects of globalized economies. CI appears to be both an inherently and ubiquitously beneficial tool; by valuing members outside the physical, religious, and emotional boundaries of one's own culture, CI can mobilize one's career and offer a competitive edge (Peterson, 2011; Van Dyne et al., 2010). This finding has important implications, as the forces of globalization further binds economies, but there are lessons to be learned at the local perspective as well. In American institutions, demographic shifts in increasingly multicultural student populations are not being mirrored in the faculty whose job it is to engage them.

In 2014, the National Center for Educational Statistics (NCES) projected a "new collective majority of minority schoolchildren" (Maxwell, 2014, p. 21), largely driven by dramatic growth in the Latino population and a decline in the White population. Concomitantly at the higher education-level university administrations continue to

struggle to develop and sustain a diverse pool of faculty members, where "...the American professoriate has long been predominantly White and male" (Griffin, 2019, p. 273). The rising minority student demographic in American universities are referred in the research as underserved; the nationwide college graduation rate for Black students is an alarmingly low rate of 42%, a full 20% below their White counterparts (Naylor et al., 2015).

Retaining a diverse range of effective teachers with experience teaching within other cultures may help address college completion issues for a vastly changing American undergraduate demographic (de Brey et al., 2019). In the literature, CI for teachers may be predicted by the degree to which they enjoy intercultural communication, openness to learning from other cultures, and personal worldview. Critical to CI is the notion that teachers view the multicultural classroom setting as a challenge, and a challenge they are both willing and able to address (Petrović, 2011). The research on CI for teachers connects pedagogical development of multicultural education with a more holistic approach to engaging a diverse audience of students. Teachers need to embody, and students need to learn, the facets of CI so that everyone may become global citizens (Goh, 2012; Meacham, 1996).

**Job Satisfaction Factors and Retention Issues**: CI is also linked to higher levels of job satisfaction for American teachers (Sims, 2011). Retention concerns have led to a scholarly effort to examine factors contributing to job satisfaction for American teachers, though only a small portion of that research is devoted to analyzing job satisfaction factors at the American university faculty level. The lack of recent scholarly work in this area is a concern; further discussion of job satisfaction factors for American university faculty is essential to expand the understanding of why highly skilled teachers are leaving American institutions to work overseas, as: "...too often the faculty who leave are those the institution would prefer to retain" (Johnsrud & Rosser, 2002, p. 518). Attracting and maintaining a talented group of faculty members is a key element for higher education institutions to achieve their mission (Gappa et al., 2007). Research has noted that high rates of faculty turnover can negatively impact an institution's reputation and the quality of instruction (Daly & Dee, 2006).

In higher education, elevated levels of job satisfaction have been associated with lower retention in faculty (Khan et al., 2014; ). Using the National Database for Preservice Teacher Education, one early study (Kim & Loadman, 1994) of 2000 instructors in positions at private and public institutions found seven statistically significant variables to predict job satisfaction distinguished by extrinsic and intrinsic rewards, including salary, opportunities for advancement, professional challenge, professional autonomy, working conditions, interaction with colleagues, and interaction with students. Intrinsic satisfiers—activities intrinsically satisfying—included autonomy, working conditions, interaction with colleagues, and interaction with students.

Teachers who are more satisfied with their work have higher levels of self-efficacy are more motivated, have lower levels of stress, and are also less likely to resign from their positions (Caprara et al., 2006); Klassen et al., 2010). In the research, retention and attrition issues are connected with teacher, organizational, and student characteristics, as well as teacher efficacy (Geiger & Pivovarova, 2018; Hughes,

2012). Research suggests the need to develop "...alternate conceptualizations... to improve our understanding of faculty job satisfaction, organizational commitment, and intent to stay" (Daly & Dee, 2006, p. 797).

## Self-efficacy for SIEs

Self-efficacy (SE) may be defined in terms of how an individual responds to a given event, particularly the degree to which an individual displays persistence, self-reliance, open-mindedness, resilience, and an optimistic outlook when faced with obstacles (Sherer & Abrams, 1983). Prior work on SE theory has taken an individualistic perspective when examining motivations for human behavior, defining SE as an outcome of "personal mastery expectations" (Sherer et al., 1982, p. 663). SE and autonomy for teachers has been found to predict practical aspects of instructional change (De Neve et al., 2015), where successful instructional delivery is highly dependent on the degree to which teacher needs are met (De Mesquita & Drake, 1994).

Similar to work conducted on job satisfaction factors, much of the SIE research focuses on corporate employee SE with implications for human resource departments (Howe-Walsh & Schyns, 2010). The Model for Sociocultural Adjustment for Expatriates (Black et al., 1991) identifies an individual's level of SE as an important predictor of expatriate adjustment success. There is a gap in the literature exploring the role of SE for American SIE teachers. Research on localized teacher SE shows a direct and substantial positive relationship between high teacher SE and student motivation and achievement, with considerable pedagogical implications (Mojavezi & Tamiz, 2012). There is a statistically significant correlation between teacher traits such as gender, teaching experience, stress and workloads, job satisfaction and self-efficacy, and educational inputs and outputs such as instructional strategies, classroom management, with student engagement (Klassen & Chiu, 2010).

**Culturally Responsive Teaching and Teacher SE**: Culturally Responsive Teaching (CRT) may be defined as pedagogical modes of teaching customized to meet the needs of an ethnically diverse group of students, where academic success and the cultural identify of students are inextricably intertwined (Gay, 2018; Wlod-kowski & Ginsberg, 1995). Expatriates teaching in foreign environments must adapt their methods to meet the cultural values and pedagogical needs of their students. This type of approach is also much needed within American classrooms. Research identifies teachers with high SE practice inclusive pedagogical strategies and are better able to develop positive relationships with their students, particularly through the act of building trust (Siwatu, 2007). There is a dearth of research exploring CRT at the university level; existing studies suggest a variety of benefits in lecturing and engaging a multicultural classroom of students using the CRT methodology (Ginsberg & Wlodkowski, 2009), particularly for African-American students (Ware, 2006).

## **Statement of Problem**

The UAE's MOE offers foreign teachers the exciting opportunity to live and work within their country with incentives such as generous employment packages. As a result, the UAE has become a destination of choice for expatriate teachers from across the world, particularly teachers from America (Muhammad, 2014). One phenomenon which may add to the discussion of recruitment and retention issues of effective American teachers is the subject of self-initiated mass expatriation. The costs of losing top quality teachers is multifold and with some unexpected consequences (Takeuchi et al., 2002), with important implications for American institutions. Current research is centered within the corporate sector and analyzes employee behaviors. Little research has been done to better understand the motivations and experiences of American expatriate teachers. Existing research on teacher SIEs advocate for additional exploratory analysis to develop a more comprehensive understanding of SIE sociocultural adjustment (Isakovic & Forseth Whitman, 2013).

## **Research Questions**

The qualitative case study addresses three central research questions:

- 1. What are the motivations of American expatriate teachers to initiate an overseas teaching assignment in the UAE?
- 2. What role does cultural intelligence and self-efficacy play in the adjustment experiences of American expatriate teachers in the UAE?
- 3. What can American institutions learn from the American expatriate teacher experience of living and working in a dynamic multicultural environment?

## **Purpose of Study**

This study sought to explore the experiences of American expatriates teaching in the UAE, one of the most dynamic multicultural countries in the world. The goal of this study was to identify possible lessons to be learned about the expatriate experience facilitating adjustment within foreign spaces which may aid American educational institutions to (1) recruit and retain a diverse pool of effective teachers, (2) develop more effective pedagogical strategies for reaching underserved student minority populations, and (3) identify factors about the American cross-cultural adjustment experience with important implications.

## Significance of Study

There exists a notable gap in the research on the rise of American teacher expatriation this study seeks to address. A collective, comparative case study of the American expatriate experience may provide a variety of meaningful insights for faculty and teacher retention in American educational institutions. An analysis of factors which impact job satisfaction for American teachers may address the lack of representation of women and minority populations working within American university faculties. The results of this study may also address teacher–student dynamics in increasingly culturally diverse classroom environments within American institutions by promoting Culturally Responsive Teaching (CRT), which may help address completion issues for underserved populations of students.

#### **Theoretical Framework**

The framework for this study draws from the Expatriate Sociocultural Adjustment Model (ESAM) (Black et al., 1991), one of the most referenced and defining theoretical understandings of the expatriate experience (Isakovic & Forseth Forseth Whitman, 2013). The ESAM examines expatriate adjustment to foreign environments and the impact high levels of uncertainty have on individuals in unfamiliar settings. The model suggests that the capacity for efficacious coping can be ascribed to definable qualities. The model categorizes these qualities into four distinct but interconnected areas: individual factors, non-work factors, organizational factors, and job factors.

**Individual Factors:** The Black et al. ESAM model is based in part on research examining international adjustments of corporate executives (Mendenhall & Oddou, 1985). The individual dimension highlights the role mental health plays in an employee's adjustment experience. Mental health as defined in this dimension includes the degree to which an individual maintains overall psychological wellbeing and how one responds to stress. The cognitive aspect of this dimension is related to an individual's expectations; how one perceives the new environment, and the accuracy of this perception. The individual dimension also looks at the skills required to foster relationships with members of the local culture.

**Non-work Factors**: The second dimension of the ESAM model is based on nonwork-related factors in the literature on employee international adjustment. The first of these factors is cultural novelty. Cultural novelty refers to the degree to which an expatriate is culturally different, or distant, from the host country. Prior research indicated that the more culturally distant one is from the host country, the more difficult it is to adjust. The second non-work factor concerns the adjustment of the expatriate's family. The family's response to the foreign culture can dramatically alter the expatriate's experience and even truncate the time spent in the new assignment. **Organizational Factors**: The ESAM model considers as part of the adjustment experience for expatriates how well individuals adapt appropriate thinking and learning behaviors to match the style of the organization. This dimension of the model refers to how employees respond to the organization's socialization tactics. Organizational factors also address how well an employee fits the needs and the mission of the organization. The criteria upon which an organization selects individuals are a significant predictor of intercultural adjustment. Research shows that many expatriates who do not succeed in their overseas assignments can cost organizations hundreds of thousands of dollars, not to mention the financial and emotional toll on the employee (Black et al., 1991; Isakovic & Forseth Whitman, 2013).

**Job Factors**: The fourth dimension of the ESAM model reiterates the expectationversus-reality aspect of the expatriate adjustment experience. The importance of clear communication is a central tenet of this dimension. The better sense the employee has of his role in the company, the better his adjustment. Unclear and conflicting expectations, in contrast, create uncertainty which negatively impact job adjustments. Additionally, role novelty—the degree to which responsibilities related to the current position differ from those of the employee's past—influences levels of role clarity and uncertainty.

Theoretical frameworks in SIE literature is in an emerging phase and suggests some conceptual confusion (Selmer et al., 2017). Prior work applying the Black et al. (2011) ESAM model aims to enhance corporate employee efficiency and has implications for organizations considering hiring SIEs (Doherty et al., 2011). The goal of the ESAM model for corporations in the research appears to be to identify coping strategies for Western expatriates working overseas, particularly how individuals adjust to the host country's cultural landscape (Bierwiaczonek & Waldzus, 2016; Sousa et al., 2017; Valenzuela & Rogers, 2018; Zhang & Oczkowski, 2016).

This study sought to add to the development of the ESAM theoretical framework in the literature by applying the components of the framework to the experiences of expatriate teachers. In this study, and similar to previous work, the goal was to identify adjustment strategies of individuals in foreign environments with a focus on cultural contrasts; however, this study employed the social constructivist epistemology to interpret the ESAM framework in order to explicitly and comparatively describe the cross-cultural expatriate experience for the benefit of teachers and American educational institutions.

### Methodology

This study applied the ESAM framework using the ontological and epistemological assumptions under social constructivism which understands reality as a perception with multiple interpretations. Within this epistemological assumption, reality is "constructed between researcher and the researched and shaped by individual experiences" (Creswell & Poth, 2018, p. 35) which then informs how data is interpreted. Under social constructivism, the context—the setting of where participants were living and working at the time of the phenomenon under review—is key to interpreting their stories. In this study, knowing the culture and challenges associated with working as an American expatriate in the UAE is necessary to fully analyze their adjustment strategies. It was the goal of this study to extract within these coping behaviors unanticipated insights.

The design of this case study draws upon Stake (1995), whose constructivist orientation emphasizes inductive exploration, discovery, and holistic analysis allows for practical, fluid, and in-depth understanding of a range of real-world issues. This study uses the collective case study method (Stake, 2000) in which a small group of comparison cases offer different perspectives of the issue and draws "otherwise inaccessible conclusions" (Creswell & Poth, 2018, p. 99). This method was selected because case study design is especially appropriate for the study of complex phenomena in which the variables being analyzed are inseparable from their context (Yin, 2003).

This study used purposeful and snowball sampling. Potential subjects were chosen because of their experience teaching as expatriates under the MOE in the UAE. Participants are American women (30–60s) and reflect a range of races, religions, and ages in order to capture a wide range of perspectives. Due to geographic and political restraints, potential subjects for this study were recruited using social media, primarily Facebook.

Data collection involved interview questions administered through University of Houston IRB-approved Skype and Zoom video to four participants. Video interviews were manually transcribed in Microsoft Word. The analytic process involved a content analysis of interview transcripts using an open-coding process (Strauss, 1987) in order to separate and categorize data into meaningful expressions using grounded theory's (Charmaz, 2006) inductive, rigorous, and comparative approach to abstracting concepts from concrete qualitative data. A within-case analysis was generated to provide important details of each case, followed by a thematic analysis across all the cases (Creswell & Poth, 2018). The data were sub-categorized by amassing text into smaller units, finding evidence to justify the codes from different analytic units, and then assigning a label to each code. Abstract themes were constructed through the use of both inductive logic and deductive logic from the cross-case synthesis.

Semi-structured interview questions were drawn from Wengraf's (2001) receptive interviewing in which the interviewer takes a more passive role which allows respondents a larger measure of control over the open-ended questions they are asked. This study uses Wengraf's lightly and heavily structured depth interviewing pyramid model CRQ-TQ-IQ/II (research purpose guides the Central research questions which are divided into theory question categories which determine the interview questions) will inform the structure and organization of the questions. The major constructs of the theoretical model served as guides in developing different sections of the interview protocol.

To establish trustworthiness, a pilot study was conducted before receiving Institutional Review Board (IRB) approval. An audit trail was used throughout the entirety of the research process, including memoing of emergent ideas, thick descriptions, reflective thinking, and summarized interview notes (Creswell & Poth, 2018). Peer debriefing and member checking (Lincoln & Guba, 1985) were also used. The social constructivist epistemology identifies as a critical element of qualitative research the role of researcher as the key instrument and the use of reflexivity in which the researcher utilizes her background (work and cultural experiences) to interpret the findings included in the study. In this case study, the researcher has prior work and living experience within the context under question.

#### Results

#### **Participant Descriptions**

Participant #1 (P1) is a 35-year-old African-American female from Cincinnati. Before beginning her assignment in the UAE, P1 was teaching 12th grade English intervention in a public high school in a small suburb. P1 holds a bachelor's degree in Special Education, and a master's in Educational Leadership. Her students in the Euclid, Ohio, were primarily middle class and African American. P1 took a position at a girls' high school in Al Ain, UAE in 2015. Her position, along with thousands of other expatriates, was terminated in 2017 due to a major infrastructural change. P1 still keeps in contact with many of her former Emirati students.

Participant #2 (P2) is a 60-year-old White female from upstate New York. Before moving to the UAE in 2011, P2 worked several jobs not within the education sector. Her most recent position was as a law clerk in San Francisco. Though P2 resigned from ADEK [MAKE SURE ADEK IS DEFINED EARLIER] in 2015 because it was "time to come home to her family" of two daughters who were graduating from college, P2 still keeps in touch with a few of her former students from the girls' secondary school in which she worked for four years in Al Ain. P2 was initially very open to engaging with the local Emiratis, but lamented that those personal relationships never developed the way she had hoped, and that she was "not ever once invited to have dinner at anyone's home." P2 converted to Islam while living in the UAE and married a man from Saudi Arabia, though he remains in Saudi Arabia and she lives in the USA.

Participant #3 (P3) is a 42-year-old African-American female originally from Chicago. P3 moved to Dubai, UAE in 2018 to take a position as Head of the Math Department for a private school. Before moving to the UAE P3 had 18 years of experience as a teacher in America. P3 began her teaching career in Chicago after earning a teaching certification through an alternative program focusing on students in high needs areas. After Chicago, P3 worked for a small charter school as the Math Title 1 District Specialist. P3 still teaches in Dubai (as of July, 2020).

Participant #4 (P4) is a 53-year-old Hispanic female from Ketchum, Oklahoma. P4 moved to Al Ain in 2014 in an effort to pay off substantial debts she and her husband had incurred after purchasing a boat and while her husband was temporarily unemployed. P4 had worked in Oklahoma as a teacher for more than 20 years,

including becoming a principal of a school in the small town in which she lived. Though P4 was contracted to work in Abu Dhabi and was expected to move to the UAE in December of 2013, it was not until February of 2014 that she finally received the plane tickets to move, and to her surprise, she was reassigned to the smaller and more inland city of Al Ain as Vice Principal for a primary boys' school. In 2017, P4 was fired, or "forced out" by her "evil" principal due to "difference in expectations." Participant #3 did not want to leave the UAE, but because her termination was so late in the school year, and because it was expected, she vacate her accommodations within a very short timespan, P4 did not have time to find another position, and with great disappointment, left the UAE in the summer of 2017.

## Participant Responses Categorized

Participants' responses to the questions from the interview protocol were categorized into four main categories based on the ESAM theoretical framework. The four categories include: (1) individual factors; (2) non-work factors; (3) organizational factors; and (4) job factors. Findings were analyzed as an effort to respond to the study's first two research questions: (1) What are the motivations of American expatriate teachers to initiate an overseas teaching assignment in the UAE? (2) What role does cultural intelligence and self-efficacy play in the adjustment experiences of American expatriate teachers in the UAE? The third research question: *What can American institutions learn from the American expatriate teacher experience of living and working in a dynamic multicultural environment*? This will be addressed in the discussion section.

## Individual Factors

- 1. Motivations for going
  - a. Needing to be challenged
  - b. Cultural-Opportunity to travel and experience new cultures.
  - c. Career Advancement-Superior remunerative rewards in UAE
  - d. Lifestyle—Wanting to improve current personal and professional life in America
    - i. Motivations for leaving UAE
- 2. Mental health
  - a. Resiliency strategies
  - b. Expectations versus reality.

## Non-work Factors

- 1. Cultural novelty
  - a. Differences in cultural norms
    - i. Lack of personal connections with local culture
    - ii. Skewed power hierarchy
- 2. Importance of social/family support.

## **Organizational Factors**

- 1. Recruiting strategies
- 2. Employee fit.

## Job Factors

- 1. Communication and Conflicting Expectations
  - a. Job satisfaction factors
    - i. Feeling/not feeling valued and respected
  - b. Constant changes
- 2. Effective pedagogical strategies
  - a. Culturally responsive teaching.

## **Individual Factors**

**1. Motivations for Going**: The interview protocol included questions asking participants what factors motivated them to want to leave everything they knew, everything familiar to them, in order to venture into unfamiliar territory. Participants provided similar types of answers for why they decided to take teaching positions for ADEK. Several themes emerged during data analysis. Motivations for going fell under four major categories: (a) needing a change, (b) cultural, (c) career advancement, and (d) lifestyle.

**a.** *Needing a Challenge*: Making the choice to uproot one's life and leave everything familiar and all the comforts of home requires a considerable amount of sacrifices. An expatriate must expend an extraordinary amount of emotional and physical energy, as well as economic investment in order to make the transition overseas. One of the themes which emerged from participant responses was the desire for a challenge in their lives as a motivating factor for making this major life decision. P1 described this common expat phenomenon as follows:

I was teaching 12th grade English Intervention at Euclid High School in Euclid, OH. Euclid is a suburb of Cleveland. I absolutely enjoyed my position, but didn't find it challenging. Ultimately, that's what motivated me to apply to teach in the UAE.

**b.** *Cultural*: The United Arab Emirates in a small country situated in the Middle East. Its geographic location facilitates relatively easy transfer between surrounding countries and even continents. Northern Africa, India, and Southeast Asia, as well as parts of Europe are within a plane ride as potentially short as three hours. All participants discussed in their responses wanting to travel and experience other cultures as a motivating factor in their decision to move to the UAE, despite not knowing much about the country or the culture. P2's response summarizes why the participants said they chose the UAE over other places: "I moved overseas because I wanted to have a multicultural experience in a foreign country. I was tempted to go teach in Prague, in the Czech Republic, but the compensation package offered by ADEC was the best one of all the countries."

c. Career Advancement: The UAE is one of the wealthiest countries in the world. In order to be a teacher for their government, expatriates must hold advanced degrees in education, and have years' teaching experience under their belts. Individuals must go through a teaching recruitment company which works with the government to attain positions in the country. As a way of enticing gualified and competent talent, the UAE offers generous compensation packages which, while in constant flux, have in the past included an expatriation stipend, housing allowance, annual flight home (which take into consideration the number of dependents in the household), and generous exit bonus. The topic of higher salary and associated financial gains of working for ADEK as compared to their American positions appeared throughout the participants' responses related to decisions to go and to remain in their positions. P1: "I basically did a self-evaluation and determined that there was nothing else I could learn by teaching in Ohio. I wanted to become a principal but wanted a little more life experience before I made that transition." P2's response represents the sentiment expressed by all participants: "The package that the UAE was offering, including a tax-free salary (equal to \$50k US dollars), a free apartment and roundtrip airfare to return home each summer, was the best in the world."

**d.** *Lifestyle:* Because of its convenient, in the middle global location and the extreme wealth of the country, warm climate, cultural novelties such as the Burj Khalifa, Mall of the Emirates, and extensive beaches, the UAE has become a tourist destination, particularly for Europeans who want a break from the colder climates of their native countries. Expatriate teachers in the UAE enjoy a wide array of perks which come with living in such a country. Another theme which emerged in participants responses was the expectation of a better life as a motivating factor in moving from their homes to the UAE, in remaining despite other negative factors, and even for returning. P1: "I would definitely return later in life if the opportunity presented itself. It is a great location to travel from and the salary is very enticing." P3:

I looked forward to moving to the UAE. I was absolutely tired of what I thought I was supposed to be doing achieving the American Dream. Money was a reoccurring theme and I couldn't understand how to live life when I thought I was doing everything I was supposed to be doing. I needed a break. I also knew I no longer cared about advancing my career because I seemed like more work, more stress, more expectations and I couldn't rest at home because it was smore bills, more taxes, and just more.

*i.Emirati citizens and expatriates Motivations for leaving UAE*: All but one of the participants are no longer working in the UAE, though none of the three who left expressed burnout, fatigue, or cultural differences as reasons for leaving. For P2, the desire to be with her daughters who had recently graduated from college back home in the USA was the driving factor in her decision to leave the UAE, despite having an overall "wonderful experience living and working in the UAE" For P4, having a strong social support group upon arriving in the UAE among her fellow expatriates greatly improved her quality of life, and therefore, her desire to remain in the country despite the obstacles: "Having so many people who arrived at the same time as me, who turned into my "family" helped to keep me from getting homesick and made the experience much better." Having or developing a strong social network which feels comforting and empathetic influences an expatriate's decision to remain or to resign.

**2. Mental Health**: Participants expressed a range of emotions when describing their experiences living and working in the UAE. These responses seemed connected to a particular timeframe, and were fluid. For example, P4 discussed the circumstances within which she began working as a teacher and how she responded to this initial work-related stress:

The first weeks were really hard for me. When we (western teachers) arrived we replaced local teachers therefore there was a lot of resentment towards us. I was ready to quit because the principal wanted me to raise a student's grade even though she didn't deserve it...I wanted to resign from day 1. I was always looking for another job. I had to resign because I was losing myself. I was so unhappy. I had become aggressive, antisocial, and suspicious of everyone.

*a. Resiliency Strategies*: One important abstraction from participants' responses in the role resilience and self-efficacy played in their capacity to handle the challenges associated with living and working as foreigners in a foreign land. Despite being "ready to quit" at the beginning of her contract, P3 persisted. "I also know now that I tend to be a workaholic…but I have to understand that it is my concern as I have more time, money and space to do more with my life out here... everything I want to do is available and affordable, whether it's a weekend away or just dinner out at a new location." Participants expressed a range of strategies to cope with their unusual circumstance. The way participants perceived the situation seemed strongly associated with how well they were able to cope. P3 was able to balance her tendency to be a "workaholic" with having more time to for other things. A common theme in the participant responses was that while the cultural and professional challenges were immense, because of the generous compensation and having more downtime, they were able to expend more energy on personal growth. Having a healthy social life

with other expatriates was a key part of the teachers' ability to cope. P4: "The culture differences were larger than I thought they would be...I bought a bike, ran a lot, and camped in the desert. Being with other expats helped to create a somewhat 'normal' life." For P1, being immersed in a foreign culture with a variety of challenges with which she had never encountered was precisely the impetus for change: "I definitely grew as a person. Being in a culture completely different than your own forces you to stay grounded and hone your beliefs. I believe that I am more solid if that makes sense."

**b.** *Expectations versus reality:* Expatriates tend to have very specific ideas of what life will be like in their host country. No matter how much reading one does, the reality of living in a wealthy Muslim country adhering to strict rules will present a multitude of challenges for the more individualistic-minded Western expat. Each participant had her own expectations, and often when dissatisfaction was expressed, it was an outcome of unmet expectations.

For former school principal P4, the unmet expectation had directly to do with the job itself:

At first, I was supposed to be at a an all girls' high school in Abu Dhabi, but it was decided to send me to Al Ain, to a cycle one (elementary) boys' school. I was given no direction as to my duties once I arrived at the school. The head principal was leaving in two months and was disinterested in training me. mainly, I was asked to help manage the schedule, student behavior, and other duties. I did not become involved in the academics as expected.

All of the participants expressed some form of culture shock. It appears that the participants who expressed having a tougher adjustment period, had very firm expectations pre-UAE. P4, whose responses reflected the most frustration out of the four, seemed to be emotionally attached to the idea of what her professional life would look like, and the disappointment was still very vivid in her retelling of her experiences. Being able to maintain an open mind appears not only to be a critical piece to self-efficacy, it is also necessary for disabling the natural human tendency to be disappointed when reality fails to meet expectations.

#### **Non-work Factors**

**1. Cultural Novelty**: The Emirati culture is a Muslim culture and follows a very rigid authoritative power hierarchy. There are many unique characteristics of the culture. The country's flourishing economic system and desert landscape add its uniqueness in interesting ways. Expatriate teachers arrive in the UAE with certain expectations and political ideologies, often influenced by Western standards. While there is great potential for positive experiences on both sides, inevitably there are misaligned cultural values between the Emiratis and the expats. One abstracted theme from the participants' responses is the resulting discord for them as they attempted to adjust. The participants each had their own ideas of what their lives would look like upon arrival. This undercurrent of cultural misalignments was within each of the participant's answers. P3:

One memory that stands out is feeling trapped at my school. I remember one particular day, I wanted to leave school to go grab lunch. Unbeknownst to me, it was forbidden to leave school without permission. This entailed getting the verbal permission from the assistant principal as well as a physical card that you surrendered to the security guard at the gate. I remember the security guard stopping me and saying repeatedly, 'Do you have permission?' I tried explaining that I was a teacher, not a student but it was no use. It was a sobering moment for me.

**a.** *Differences in cultural norms*: The Emirati's rigid power hierarchy is almost an absolute inverse to that followed in the West. Power hierarchies exist on multiple levels in the UAE. Just being born Emirati means a certain level of power. Participants expressed, in a variety of ways, how this hierarchy impacted their experience. P2 discussed how the skewed power structure impacted Western teachers:

There was a double standard in many things for Emirati citizens and expatriates.

We jokingly called the locals, 'Citizens of Rome'. The expats all signed contracts to teacher 25-30 hours of classes a week, while the locals might only teach 10-16 hours a week. There were many ramifications of this.

For example, the expats were always in a rush and rarely had time to sit down with the locals and share a cup of coffee. I was jokingly told by our vice principal that, 'You Americans are all business and don't take the time to chat with people about their lives or their families'. I would have loved to do that more often, but I was often getting my teaching materials together and rushing to class, with such a tight schedule.

i. *Lack of personal connections with local culture*: All four participants expressed some level of disappointment in not having access to the local Emirati culture, though all four also expressed being able to make personal connections with their students. For P2, it was not having the opportunity to engage in the culture on a more intimate and familiar degree:

There was an inherent feeling of "us" vs. "them" with the local Emirati faculty and students. The local students sometimes treated us like their maids, or just "the hired help," and not like valued members of the community. Strangely enough, after teaching at the same school for four years, I was not ever once invited to have dinner at anyone's home – faculty, administration, or students. I understand that it is a tribal culture, and Emiratis tend to spend their free time with their families.

ii. *Skewed power hierarchy*: The rigid division of labor shaped relationships between teachers and Emirati staff. P4 underscored the unfair expectations between Emirati and for expat staff: "Emirati staff fingerprint in and leave or do not work in the classroom. This leaves students unattended which often became the expatriate's problem."

**2. Importance of Social/Family Support**: All participants explicitly expressed the importance of having a strong network of support. The power of establishing relationships on the expatriate's ability to cope cannot be overstated. For P2, the desire to be with her daughters who had recently graduated from college back home in the USA was the driving factor in her decision to leave the UAE, despite having an overall "wonderful experience living and working in the UAE." For P4, having a

strong social support group upon arriving in the UAE among her fellow expatriates greatly improved her quality of life, and therefore her desire to remain in the country despite the obstacles: "Having so many people who arrived at the same time as me, who turned into my "family" helped to keep me from getting homesick and made the experience much better." Clearly, having or developing a strong social network which feels comforting and empathetic influences an expatriate's decision to remain or to resign.

## **Organizational Factors**

**1. Recruiting Strategies**: The hiring process is the same for each expatriate. In order to be hired by the MOE, each individual must first go through a teaching recruiting company. P4's response best exemplifies the process for most teachers:

The process of getting hired is relatively easy. I will admit that I was apprehensive about being in a Muslim country. I applied for a teaching position in Abu Dhabi through an agency called Teach Away. First, there was a Skype interview with Teach Away; involving basic questions about teaching philosophies and strategies in supporting children with academic or social difficulties. After the Teach Away interview, ADEC invited me to interview in New York City. The interview was conducted by a Jordanian man and an Emirati woman. After about 30 minutes of answering interview questions, they offered me a teaching position.

**2. Employee Fit**: Prior research using the ESAM framework suggests that the closer matched an employee is to the needs, mission, and style of the organization, the more likely the employee will remain with the organization, and the higher her job satisfaction. The relative ease with which teachers are hired by the MOE suggests that the organization is less concerned with longevity than with simply filling positions. The lack of knowledge from all participants about the UAE further suggests an even greater gap in their knowledge about how the country approaches education. This fact could have significant implications in discussions of teacher resiliency. P1: "It's embarrassing to admit that I had only heard about the UAE from the movie *Sex and the City 2.* Prior to this move, I had only traveled out of the country once."

P3: "I honestly did not know much, except Dubai was expensive. In fact I was originally going to Kuwait to teach. I really wanted to be in a position to save money, relax a bit and just teach and replan my life. My family was highly concerned that I was going to Kuwait and as well, I was going as a 4<sup>th</sup> grade teacher after being in leadership for 10 years."

#### Job Factors

**1. Communication and Conflicting Expectations**: Each of the participants listed a variety of professional duties and expectations amid constant changes. It was evident from their responses that the Emiratis and expats struggled to find middle ground.

a. Job Satisfaction Factors: Cultural differences were also expressed by the participants in academic terms, and everything expressed revealed some element of authority. With so much at stake for the individual expatriate and for the country— the expenses involved in repatriating—one would think there would be extensive efforts and research on what factors contribute to a teacher's level of job satisfaction. However, this study exists because there is no such research. Within almost every one of the participants' responses was an element of what they liked or did not like about the job. One abstraction from their responses is that while they were, as native English speakers, brought to the UAE as part of a reform movement, that was in reality not happening. P2 discussed the fact even when she resigned, there was no effort to engage her and ask for her feedback about her experience: "I think ADEC should ask similar questions as part of an Exit Interview with all expatriate teachers. Teachers are dying to give their feedback, but are rarely asked."

i. *Feeling/Not Feeling Valued and Respected*: The perception of not being valued as an employee, of not having one's voice heard, and of not feeling respected emerged throughout all four participant responses. This theme emerged so often that it must be induced that feeling heard and valued is directly connected to feeling satisfied with one's job. This must ring true for all employees working under any circumstance. In this study, the ramifications of not being heard and feeling valued is most evident. P1: "I remember feeling like an exhibit. From women reaching out to touch my hair to teachers telling me that I was beautiful for a Black woman. I soon realized that he lack of exposure to the rest of the world left many Emiratis in a bubble of social isolation." P4 discussed the impact of the perception of working within an environment in which one feels heard: "Now that I have worked in two foreign countries, I can say that the biggest factor for feeling satisfied is feeling valued and safe. If a teacher feels that the school or government cares about them and their safety personally, they can deal with other issues such as poorly run schools or lack of materials." P2 extends the sentiment:

Ultimately, I felt that I didn't really have a voice in the education process of the UAE. 'Experts' from New Zealand, and our principal, were making a lot of decisions about the curriculum, and they didn't seem to care what we thought about anything, even though we were on the front lines in the classroom.

b. *Constant Changes*: A major theme from each of the four participants' responses was the impact inconsistencies, unclear expectations, and change has on their experience as teachers for ADEK. Having to deal with constant changes in the curriculum, administration, and reform initiatives took a tool on each of the participant's emotional well-being and level of job satisfaction. P2 expressed her concern: "Too many changes were constantly being made to the curriculum. It was hard to get some real traction going because all the textbooks and the entire curriculum would change dramatically each year. Every year, it changes. The curriculum changes yearly practically, so I am tired."

P4 conveyed her experience as a series of unmet expectations within a disorganized working environment she called "dysfunctional." Her responses indicate a severely flawed power structure which impacts the quality of the school itself. "I did not

become involved in the academics as expected. Over the four years, we had a different head principal each year—all were new to the UAE so had no guidance to give me." In response to a question about what would have made her job more satisfying, P4 said: "To have a head principal more than one year. The average was 10 months. Also to have training when I arrived to outline my duties. Also for all schools to follow such outline of duties. I found that duties changed with the principal" P4 explained how constant changes were embedded within every tier of the educational system in the UAE:

The MOE upper executives have changed repeatedly over the last 10 years and often without warning. Each new director has his/her own vision and makes changes, usually affecting the foreign staff. There is a lack of trust between the teachers and the MOE to protect their jobs and rights due to the changes.

P2 also discussed change with regard to teaching expectations: "Last, but not least, too many changes were constantly being made to the curriculum. It was hard to get some real traction going because all the textbooks and the entire curriculum would change dramatically each year...Teachers who did a good job were not encouraged to keep using the lesson plan they had developed with the same age group of students."

**Effective pedagogical strategies**: The necessity of using a variety of strategies to engage students was expressed by all participants. Having the desire to connect with students and a willingness to do whatever it took was at the core of each of their responses. P1: "I relied heavily on the theory of multiple intelligences. I was intentional about including physical activity, music, role playing and visuals in my lesson plans. I was definitely successful. My students enjoyed coming to class and were always engaged in the lessons." The strategies employed by the participants seemed an extenuation of their American teaching practices. P2: "I used whatever books I chose, and did everything I could to get students reading, writing, speaking and listening to English every day. This is how I was taught to teach "regular" students at U.T. in the 1970's and early 1980's, and I did the same for my English as a Second Language students." P4: "I found that using drama (plays) in my classroom gave the students opportunities to use art, history, math, writing, and reading. The students thrived when they were moving and working together."

*Culturally Responsive Teaching:* One of the most surprising and interesting themes which emerged in the participant response was related to their pedagogical practices. None of the four participants was familiar with CRT, or had formal training in the importance of inclusion in the classroom. Despite their lack of official training, each participant exercised some version of this pedagogy, as if by natural instinct. P3: "I feel psychology should also be in play or the history of understanding students and their cultures. Making the effort to know a student's culture is everything." P3 made an important connection of using CRT with her own background:

I have never heard of CRT. However I believe if you broke down the definition of what it is, I naturally operate in that manner. Being a woman who is African American and truthfully a passionate educator, I have always been conscious of diverse curriculum that relates to student understanding with historical context. It is how I have always worked within my classroom. The other three participants each expressed their own version of this sentiment. P1: "I don't remember focusing on inclusive pedagogical practices during my formal education, but I've participated in professional development as a teacher that would qualify. One example is the program Responsive Classroom." P2: "I was not ever specifically trained in CRT, though I did accidentally end up using some of CRT's methods in my classrooms." When asked the question about how much time was spent in her teach training courses on CRT, P4 simply responded with: "Not much."

#### **Discussion/Implications**

Through the lens of the constructivist paradigm, different interpretations of reality are a given. The most surprising finding in this study was not a difference but a similarity in the participants' responses to the question of whether or not they would return to the UAE if given the chance. Despite all the challenges expressed throughout almost each of their responses, all but one participant said she would be open to returning to the UAE as a teacher at some point. In addition, none of the teachers who left their positions left out of frustration or feeling overwhelmed. P1: "I would definitely return later in life if the opportunity presented itself." P3: My first year was absolutely hell... I never wanted to come home because I was still attaining goals and saving money and had a better home life-style." Out of the four participants it was most surprising to hear P4's response that she "...would return with the experience that I gained." P2 was the only participant not to express a desire to return, but the reason had to do with age (she is 61) rather than anything related to her former experiences.

Previous studies using ESAM focused on the experiences of corporate employees. The ESAM model includes as part of the adjustment experience elements of cultural novelty and an employee's strategies for dealing with stress; however, the results of this study indicate a deeper presence of Cultural Intelligence and Resiliency. CI was evident through the participants' instinct to employ inclusive CRT strategies. None of the four participants had formal CRT training, and this is a compelling indication of high levels of CI. It is precisely this underlying feature in their person which makes them resilient. The natural compulsion to employ CRT skills was certainly put to the test while working in the UAE. It is important to note that it is precisely this instinct which is also much needed in American institutions.

Findings indicate that good teaching—at any level—is about first and foremost connecting with students. CRT is one pedagogical strategy which emphasizes the importance of relationships, but the participants were not even aware they were using CRT. Their message went beyond labels; good teaching is about using all the tools in your toolbox and having a "whatever it takes" attitude. Participant responses support the literature on CI which suggests that high levels of CI are present in teachers who (1) recognize the many challenges inherent in multicultural classrooms and (2) view these challenges as an opportunity rather than a set of overwhelming obstacles. The

findings of this study make it clear that making personal connections with students using CRT or not—requires both the mind and the heart, a notion which supports CI literature with an emphasis on a more holistic approach to engaging students.

Participant responses were the most comprehensive in the individual factors construct of the ESAM. Future SIE research should examine further self-regulatory behaviors specific to expatriate teachers. These SIE individuals possess within their stories much information relevant to discussions on teacher and faculty retention. In particular, the job satisfaction section has significant implications both for the UAE and for American institutions.

It is remarkable that none of the participants expressed burnout, fatigue, or being overwhelmed as reasons for leaving their positions in the UAE, despite the fact that their responses indicated a multitude of both personal and professional frustrations and complications. It is also significant that these SIEs left their American positions out of need to grow professionally. The participants expressed monetary challenges with teaching in America, as well as a sense of not being challenged professionally, of wanting to move beyond feelings of comfort and complacency. Participants displayed great persistence, open-mindedness, and resilience in the face of seemingly insurmountable obstacles which supports the literature on teachers who display high levels of SE and the self-efficacy element within the individual factors section of the ESAM.

#### Limitations/Suggestions for Future Research

One of the goals of this study was to address the gaps in the research on the experiences of expatriate teachers, and that gap is surprisingly sizeable. For example, there are no qualitative studies which include the experiences of American expatriate teachers in the UAE. If the UAE wants to improve their educational systems, there needs to be a more systematic way of reflecting on, and then addressing, issues which are both obvious and subversive. One of the recommendations of this study is for ADEK to conduct annual surveys asking for constructive feedback from expatriate teachers, systematically reflect on the feedback, and make appropriate changes. One of the themes which emerged in the participants responses was how dealing with constant change caused high levels of stress and how that stress translated into actions, including the action of resigning. Additionally, findings in the organizational factors section indicate that the MOE needs to be more thoughtful in hiring decisions. Grounding interview questions on the CI construct to potential applicants could be one way to increase the likelihood of a best-fit scenario, ultimately saving both the host country and the expatriate both time and money.

This study is limited in scope because only four teachers from Al Ain and Dubai were included. Future research should expand qualitatively on the experiences of expatriate teachers in the UAE by including the stories of teachers from other emirates in the UAE. Future research might take a comparative approach which examines the experiences of expatriate teachers in countries other than the UAE and outside the

Middle East. This type of study might reveal successful strategies for both educational systems and individuals participating in reform movements with foreigners or within a foreign country. Future research might examine further individual traits of expatriates who successfully adjust to other cultures.

Future research should address the noticeable gap in studies on the expatriate teacher—as opposed to the corporate employee—experience. One interesting finding in the research was the large presence of female expatriates. Future research may further examine whether or not and the degree to which women are drawn to overseas experiences over men. Future research might also address the influence of Western hegemonical power structures, including the ubiquity of the English language.

By taking a step back and attempting to piece together the various elements of this study, it is important to further examine why top performing American teachers and faculty are leaving their American positions. Based on the findings of this study, it is possible that this specific population of teachers is exactly the type of instructors from which American educational institutions may benefit the most. Future studies should examine this topic. One possible outcome of such studies may be student teacher training programs which emphasize both cultural intelligence and culturally responsive teaching, and also coping, or resiliency strategies for American teachers in dynamic settings. In order to address the need to retain quality university faculty, future research may also investigate programs aimed at connecting student teaching and faculty recruiting initiatives.

## Conclusion

The internationalization of the world's markets has resulted in a significant increase in the cross-cultural interactions and has led to large numbers of expatriates living and working overseas. These expatriates must learn to adjust not only to the needs of their new work culture, but also to new ways of living. Analyzing the experiences of expatriates can lead to fruitful outcomes for many; the lack of research in this area has led some scholars to refer to the dearth of research as an ignored aspect of the international labor market (Jokinen et al., 2008). This study sought to close the gap in the research on adjustment factors for expatriates living and working in the UAE.

If a primary goal of American institutions of higher learning is to recruit and retain top faculty members, then it would benefit these institutions to recognize that faculty members are teachers, and inclusive pedagogy such as CRT should also apply at these educational levels. There is possibly a very compelling link between college completion issues for underserved American populations and lack of diversity among faculty; regardless, there is an urgent need for a diverse range of instructors with a diverse range of experiences and training who reflect an increasingly diverse population of university students. One solution to the issue of lack of diversity within university faculties could be in how faculty is recruited. Faculty recruiting initiatives might consider targeting teachers from the K-12 community who demonstrate high levels of CI and have cross-cultural experiences—such as former expatriate teachers—as

a strategy to enhance the cultural landscape of instructors, and better ensure their long-term engagement with students amid the broader academic community.

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## **Chapter 4 Teacher Education in Jordan: Retrospect and Prospects**



Farouq Almeqdadi and Ali Al Zoubi

Abstract The Jordanian Educational System has been developed since the establishment of the country in the 1920s in the last century, in which the numbers of schools and teachers were in tens until the numbers teachers became in thousands and the number of students more than two million students. On the other hand, the stages of education in schools have been developed from (elementary, middle, secondary) and recently became two stages: the basic stage which is compulsory from kindergarten to Grade 10 and the secondary stage that consists grades 11 and 12. In addition, the secondary stage is split into two branches: academic (scientific and lliterary) and vocational (industrial, agricultural, commercial, accommodation, home economy, and others). There are several agencies that control and monitor education in Jordan such as: government through the Ministry of Education, private sector through private schools, the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), and foreign schools (British and American Schools). The educational system in Jordan faces several challenges and difficulties in the teacher education aspects such as the weaknesses of the financial resources. In the quality of education, the educational system in Jordan is one of the best in the Middle East region in terms of curriculum, methods of teaching, methods of assessment, teacher qualification, teacher training, and technology integration in the teaching-learning processes in schools and universities. This chapter reports teacher education in Jordan and challenges and difficulties in the country.

**Keywords** Teacher education  $\cdot$  Jordan  $\cdot$  Darsak  $\cdot$  Teacher training  $\cdot$  Online education

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## Introduction

Education is one of the most important issues and concerns these days. It touches the life of all people around the world regardless of their place, age, job, knowledge, and skills. So, education has a critical impact on all learners (citizens) in all countries. This impact shows the importance of the teachers' role in the teaching-learning processes (Larsen, 2010). Jordanian Educational System had a significant role in the development of Jordan to be an industrialized country. Jordan has the highest number of researchers in the research and development per million among all the 57 countries that are members of the Organization of Islamic Cooperation (OIC, 2005; UNESCO, 2005). The numbers show that Jordan has 8060 researchers per million people, while the world average is 2532 per million. The educational system in any country needs to go in a parallel line with all new developments in people's lives including technology and its tools. As stated by NCTE (1998) in Quality Concerns in Secondary Teacher Education, the teacher's role is crucial in all educational program. The teacher is responsible for implementation to succeed educational outcomes. This shows the importance role for the preparation processes for qualified teachers in the colleges of education and teacher education programs in any country.

Since the establishment of Jordan as a state in 1921, teacher education passed several development aspects until the first educational reform conference held in 1987. All governmental universities in Jordan established teacher education programs to graduate and train prospective teachers (Abu Nabaíh & Abu Jaber, 2017). The Jordanian Ministry of Education recognized that development of quality of teacher education is vital for the country's development. So, teachers training became one of the most important projects over the years. As a result, the Ministry of Education responded by began the National Project, The Education Reform for Knowledge Economy (ERfKE) which was divided into the two main phases: ERfKE I that took place in the period of 2003–2009 and ERfKE II that took place in the period of 2010–2015. The main goal for that project was to improve professional development for all teachers.

To understand well and think in the right way, we need to know the meaning of teacher education. The National Council for Teacher Education has defined "teacher education" is a program to train teachers to teach from pre-primary to higher education level. The program also focuses on the development of teacher proficiency and competencies to meet the profession teacher standards. It is noted that teacher education covers formal and non-formal activities and experiences that support to train a person to be a qualified teacher. On the other hand, teacher education includes teaching skills, pedagogical theories, and professional skills.

Table 4.1 Percent of female teachers, by country	Country	Female teachers (%)	
	Japan	43	
	Jordan	67	
	OECD	68	
	Saudi Arabia	52	
	Turkey	56	
	United Arab Emirates (UAE)	62	

# **Table 4.2**Average teachers'age, years of experience as ateacher in total, by country

Country	Average age	Average years as a teacher
Jordan	36	10
OECD	44	17
Saudi Arabia	38	13
Turkey	36	11
UAE	39	13

## **Teacher Education in Jordan in a Global Picture**

In Jordan, there are around two-thirds (67%) Jordan's teachers are female which is the same average of the Organization of Economic Cooperation and Development (OECD) which shows that only 1 in every 3 teachers is male (Table 4.1). On the other hand, 41% of employed females in Jordan were employed in the education sector, compared to only 6% of employed males (Kasoolu et al., 2019). To explain this gender imbalance in Jordan and in other countries, Van Damme (2017) mentioned several reasons such as gender stereotypes regarding "suitable" professions and the roles of males and females within different professions, the prestige of the occupation, social and cultural norms, and pay expectations. In another statistical aspect, Table 4.2 shows that the teachers in Jordan were, on average, younger with fewer years of teaching experience than OECD teachers (Darling-Hammond, 2000).

## The Current Educational Stages in Jordan

#### The General Education Sector (Schools)

Education in Jordan started from a modest beginning in the 1920s with 44 schools, 6 of them for females. The number of teachers was 81, and 12 of them were female teachers, while the number of students was 3316 students, and 318 out of them were female students. In the mid-1940s, the number of public schools (governmental) became 77 schools and the number of teachers became 214 male and female teachers,

while the number of students became 10,729 male and female students (QRCEIT, 2020). The most recent numbers in Jordan are as follows: number of students in schools is 2186957, and number of teachers is 137977 (QRCEIT, 2020). On the other hand, the students had to take a General Elementary Exam, from the mid-1940s to mid-1950s, while the educational stages were classified since mid-1950s into elementary stage that was consisted of the Grades (1–6), preparatory stage that was consisted of the Grades (7–9) besides the Secondary Stage.

Since the beginning of 1960s, the educational stages were fixed clearly into three educational stages: elementary stage (1–6), middle stage (7–9), and secondary stage (10–12). In addition, the Secondary Educational Stage was split in the academic years 11–12 into three branches: scientific, literary, and commercial. All students should take a General Secondary Exam at the end of the Grade level 12 in all branches (QRCEIT, 2020). After the mid-1960s, education witnessed qualitative shifts, and education became for all, and the focus began on academic and cognitive depth and scientific excellence. During that stage, the focus was on the spread and expansion of education in the countryside and cities, and a qualitative shift appeared in curricula and textbooks, in addition to linking education to the needs of society through vocational education programs.

At the beginning of the 1990s, education in Jordan became compulsory in the basic education stage from grades 1 to 10, in addition to secondary education for two years in its academic and professional branches. In recent years, pre-school education (kindergarten) has been added to basic education. On the other hand, there are several bodies that supervise the school educational systems (basic and secondary), including the Ministry of Education, the private sector, the International Relief Agency UNRWA, and schools that follow non-Arab foreign curricula, such as the American, British or European curriculum and others.

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) provided basic education in the 2019/2020 School Year to over 121,000 students at 169 schools from grades 1 to 10, with almost 88% of the schools continuing to operate on a double-shift basis (UNRWA, 2020). In Jordan, not all refugee children attend UNRWA schools. As ab example, most Palestinian refugees have gone to government schools and most of the UNRWA schools run on more than a single shift. Table 4.3 shows the total refugee student's enrollment in Jordan at various education levels.

Table 4.3 Total refugee   pupil enrollment in Jordan distributed by education level   and school and school	School authority	Elementary level	Preparatory level	Secondary level
	UNRWA school	86,931	54,283	0
	Government school	38,180	25,938	2943
	Private school	2616	1347	18,488
	Total	127,727	81,568	21,431

In addition, UNRWA is also providing university-level teacher education in the teaching of Arabic, English, geography and in being a "class teacher" to approximately 1400 students through the Faculty of Educational Sciences and Arts (FESA).

For more information and clarification, the current educational stages in Jordan consist of the following:

- (A) **Kindergarten Stage (Pre-school Education)**: This stage serves children from the age group 4–6 years, and its duration is two academic years. It contains Kindergarten 1 and Kindergarten 2, and there are public and private kindergartens in Jordan. In recent years, the level of Kindergarten 2 (age 5 years) has been joined to the stage of compulsory basic education (1–10).
- (B) **The Stage of Basic Education (Compulsory)**: This stage serves students in the age group (6–16) years, and it covers the Grades (1–10), in addition to the age group of 5 years as mentioned previously. Education at this stage is considered free in schools affiliated with the Ministry of Education, as the Ministry is responsible for educational expenses, including infrastructure, educational resources, and teachers and administrators' wages. Compulsory education means that education is compulsory for students at this stage, and the Ministry takes a set of measures to prevent school dropouts, whatever the reasons. On the other hand, students who finish the study in the basic education stage are enrolled in the next stage, which is the secondary education stage, and they are distributed among the secondary education tracks according to an equation that takes their cumulative averages in the eighth grade at 20%, in the ninth grade by 30%, and in the tenth grade by 50%.
- (C) The Stage of Secondary (High School): This stage serves students in the age group (16–18) years, and it covers the Grades (11 and 12) which lasts for 2 years. The education in this stage is not compulsory, and it is free in the public (governmental) schools that belongs to the Ministry of Education in Jordan. The education in this stage has several paths:
  - 1. Academic Secondary Education: It includes the branches of scientific, literary, and health education.
  - 2. Vocational Secondary Education: It includes industrial, commercial, agricultural, hotel, and home economics education.
  - 3. Applied Secondary Education: It is supervised by the Vocational Training Foundation and consists of vocational options, the practical aspect of which is applied in work sites in agreement with employees.

## **University Education Sector (Colleges and Universities)**

The higher education sector in Jordan includes two types of educational institutions: community colleges, where students can study for two academic years after high
school and then enroll in the teaching profession. As for the second type, it is university education. It is for universities in which the student studies 4 years after high school and in various disciplines, including what qualifies him to join the teaching profession. The following is an overview and some information about colleges and universities in Jordan:

### (A) Intermediate Community Colleges (Teachers' Houses)

The establishment of higher education institutions in Jordan began at the beginning of 1950s of the last century and was called "Teachers' Houses"; then they became "teachers institutes" and after that they became "community colleges." The responsibility of these community colleges was for the Ministry of Education, and there were colleges for males and other colleges for females. Later, the responsibility has been transferred to the Ministry of Higher Education since the mid-1980s. Besides of these developments about the community colleges, at the end of the nineties, Al-Balqa Applied University was established, and all community colleges in Jordan joined it. The aim of establishing this university was to move community colleges have been established in different parts of Jordan, in addition to community colleges affiliated to Al-Balqa Applied University. The goal of the establishment of these colleges was to prepare and graduate teachers in addition to graduate people to work in professions other than education.

One of the researchers in Jordan who is specialized in vocational education conducted a study to investigate the effectiveness of training program for the development of knowledge about the national professional standards among the teachers of secondary vocational education in Jordan. He stated that "The Ministry of Education accomplished a great deal in the field of educational development through the comprehensive review of the entire educational process, in term of curriculums and textbooks, evaluation tests, and many things that include the teacher as a center or cornerstone of the educational process, which entailed rehabilitation and training by improving the skills and knowledge, in a way that the teacher through it can deal with real life" (Al-Momani, 2018, p. 111). In another related issue in 2005, "the School-Based Teacher Training conference was held in Jordan, which attracted the attention of the Royal Committee for Education, teachers, supervisors, as well as the personnel and experts of the Ministry of Education. The conference was also supported by international agencies such as the USAID (Alkhawaldeh, 2017, p. 53).

### (B) University Education

The first public university in Jordan was established in 1962 in the capital, Amman, followed by the establishment of other public universities in different cities in Jordan; until now in the academic year 2021/2222, there are more than ten public universities. Statistics indicate that the number of students in all public and private Jordanian universities reached 300,000 during the academic year 2020/2021, including about 221,000 students in public universities. The number of Arab and foreign students studying in Jordanian universities

reached 44,734 during the academic year 2020/2021, representing around 50 countries in the world. These Arab and foreign students are distributed in public universities about 40% and in private universities about 60%. In addition to the mentioned universities, there is a university college in Jordan affiliated with the International Relief Agency, which is part of the United Nations.

Educational System in Jordan can be demonstrated in Table 4.4 that includes the levels and types of education, number of years, ages, grade levels, and certificates.

In Jordan, "training for inclusive education is very limited at both pre-service and in-service levels, both because the idea has only recently been introduced and because of limited financial resources in the country" (Amr, 2011, p. 399).

# **Research in Teacher Education in Jordan**

In general, research plays an important role in teacher education and it has increased in recent years (Kari, 2015). Some educators claim that even if someone is considered as an expert in teaching, it is not enough for him/her to pursue an academic career. They encourage all teacher educators to have a responsibility to engage in research, which should support teachers in their teaching (Cochran-Smith, 2005). In addition, one of the research recommendations says that teachers need to have research skills as part of their profession in teaching (Amirova et al., 2020). Moreover, there are some calls to engage student teachers in research (Smith & Sela, 2005; Ulvik, 2014). In parallel to the above ideas about research, thousands of Jordanians study in both master and PhD programs inside and outside Jordan, where they practice conducting research studies. So, the culture of research is a regular one in the Jordanian the educational system, and both students and teachers got involved in many research studies all the time.

On the other hand, there are three approaches to teacher education research may be defined, and all of them are important in the quest for better understanding of the field. These three approaches are: research in teacher education—mainly carried out by teacher education practitioners; research on teacher education—mainly carried out by education policy scholars; and research about teacher education—carried out by scholars in a range of disciplines and seeking to explore the wider social significance of teacher education (Mentor, 2017). In Jordan, the main efforts for building research in teacher education depends on faculty members at the Colleges of Educational Sciences in the different regions of the country. The research studies conducted by the faculty members at those colleges might contribute by majority percent to the research body in Jordan.

Education	School/level	Degree	Grades	Age	No. of years	Notes	
Pre-school	Kindergarten		KG1, KG2	4–6 years	2	KG2 Compulsory	
Elementary	Basic (compulsory)	Elementary	1–6	7–12 years	6	Education is compulsory for ages 6 to 16	
Middle (preparatory)	Basic (compulsory)	Middle	7–9	13-15 years	3		
Secondary (high school)	Secondary	Academic Vocational	10-12	16–18 years	3	Tawjihi (General Secondary Education Certificate) certificate/diploma awarded	
Community Colleges	After School	Diploma	13–14	19–20 years	2	Certificate/diploma awarded: <u>Al Shamil</u> (completion certificate)	
University (College)	Undergraduate	Bachelor		19–22 years	4	Bachelor degree program. A bachelor is 4 years in most fields, dentistry, pharmacy, and engineering are 5 years, medicine 6 years. Some universities follow German and French systems. The German leads to a Magister degree, the French to a DEA degree. Teacher education is part of the university system. All teachers must obtain a bachelor, secondary teachers must in addition pass one more year of study to obtain the Higher Diploma in Education	

 Table 4.4
 Educational system in Jordan

(continued)

Education	School/level	Degree	Grades	Age	No. of years	Notes
University (College)	Graduate	High Diploma, Master, PhD (Doctorate)		19 + years	1 year, 2 years, 3 + years	High Diploma Certificate Master Degree Certificate PhD Degree Certificate

Table 4.4 (continued)

# **Special Projects for Teacher Education in Jordan**

### 1. Queen Rania Teacher Academy (QRTA)

It is an independent non-profit organization committed to the vision of Her Majesty Queen Rania Al Abdullah of supporting and empowering educators with the skills, recognition, and support necessary to excel in their classrooms and become creative and diligent professionals, who lead future generations. Since its launch in 2009, QRTA has been steadfast in its dedication to offering training programs for teachers and educators in accordance with the educational needs in Jordan and the Arab World. In addition, the Academy currently offers programs in both pre-service and inservice, short and long courses, accredited programs and diplomas, and professional development programs for private schools (QRTA 2022).

QRTA launched its pre-service Teacher Education Professional Diploma (TEPD) in 2016 as a first on the local and regional scale. The diploma prepares teachers for the challenges of the twenty-first century classroom, preparing future educators to treat classrooms as more than mere space, but as the birthplaces of innovation, leadership, intellectual curiosity, and civic participation among youth. TEPD is currently playing a major role in supporting Jordan's education reform agenda by preparing youth to become teachers. TEPD is a 24 credit hours diploma for 9 months that combines theory with practice for grades 1–3 (early grades) and 4–12 teachers. The diploma comprises of face-to-face teaching at the Academy as well as practical teaching and related professional practice in schools, linked to elements of online learning.

On the other hand, QRTA launched the In-Service Teacher Development Program in 2009 with technical assistance from Columbia University–Teachers College. The program is delivered to a community of schools, where teachers of the same subject learn together and form a community of practice within the school that brings about sustainable improvements. Another initiative project by Queen Rania Teacher Academy (QRTA) in partnership with the International Baccalaureate (IB) was Teacher Skills Forum. This forum stems from a simple idea: tackling the challenges of education in the region at the grassroots level, in our classrooms. The Teacher Skills Forum is an annual regional event created to provide teachers from the Arab world with modern and creative strategies and innovative teaching techniques. It is a platform for teachers to explore, learn, and share experiences with some of the world's most renowned educators and scholars.

# 2. The Pre-Service Teacher Education in Jordan Project by the USAID

This project USAID is partnering with the Ministry of Education, the Ministry of Higher Education and Scientific Research, the Accreditation and Quality Assurance Commission for Higher Education Institutions, and Queen Rania Teacher Academy to launch a pre-service education program that prepares aspiring teachers at universities nationwide to become certified teachers equipped with essential pedagogical skills. The Pre-Service Teacher Education in Jordan activity will support four universities to introduce and implement a pre-service teacher education program that will supplement subject-specific degrees. Through the program, university students will learn relevant pedagogy, interactive learning methods, effective classroom management, and how to integrate issues such as gender equity, disabilities inclusion, and environmental awareness into their teaching. The program will be adapted from Queen Rania Teacher Academy's widely recognized postgraduate preservice diploma, which is currently only offered in Amman. The project will work closely with the universities to ensure that university staff are appropriately trained to administer the program and that mechanisms are in place to ensure the quality of graduates.

### 3. Online Education in Jordan

Darsak platform platform ( (در سك) is one of the most prominent platforms that have appeared recently. It is a free Jordanian distance learning platform, provided to school students from Grade 1 to Grade 12 in schools. It provides educational lessons through video clips that are organized according to the Jordanian education curriculum, provided by a distinguished group of male and female teachers to make it easier for students to continue their learning and follow up on their study materials. Every student can use the platform remotely with ease, as every student can choose the educational material within the weekly schedule of lessons (Jordanian Ministry of Education, 2020). The Ministry of Education has utilized Darsak platform to support the educational process and ensure its continuation during the COVID-19 outbreak by making the educational programs available through the platform.

Darsak platform was established with the aim of covering all educational lessons from all courses and grades and according to the Jordanian education curriculum according to plans before the outbreak of the corona COVID-19 pandemic. It was the appropriate solution to avoid any obstacle in the progress of the school study. The platform provides lessons in the form of video clips throughout the week, and this platform also links educational service providers with the Jordanian Ministry of Education. The first group works to provide educational video lessons according to what is decided by the Ministry's educational plan of lessons for each class and for each subject and throughout the week; these lessons are produced by a high technology that simulates the classroom in terms of the teacher's presence in voice and image (Shehada et al., 2021).

# Challenges and Difficulties of the Teacher Education in Jordan

Education in Jordan faces several challenges and difficulties, including:

- 1. The absence of an educational strategic plan for educational development so as to devote institutional work and the advancement of the education to provide the educational process by better ways and effective support according to executive plans and well thought-out programs.
- 2. The weakness of the moral, religious, and social values system of teachers and the consequent misbehavior.
- 3. The students' low level of education and achievement in the basic stage in some skills such as reading, writing, and arithmetic.
- 4. Weakness of teachers' knowledge measurement and evaluation programs and methods, the weak results of Jordanian students in international tests, and the failure to achieve effective competition at the national, regional, and international levels.
- 5. Weak interest in and development of the school structure in terms of its suitability for education, the presence of rented schools, overcrowding in the number of students in schools, the scarcity of libraries, and their use and limited use of technology.
- 6. Weak material and moral incentives provided to the teacher.
- 7. Weak vocational education programs and low demand for vocational education by students.
- 8. The recent Syrian Asylum has increased the burden on the educational system and the lack of infrastructure to accommodate the number of students, forcing the Ministry of Education to introduce a system of morning shifts (approximately four hours for Jordanian students) and evening shifts (approximately four hours for Syrian Refugee students).

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# **Chapter 5 Teacher Education During Turbulent Times in Yemen**



Abdu Al-Kadi

Abstract Teacher education in Yemen has witnessed turbulent times resulting from political disorder, armed conflict, violent atrocities and, quite recently, the outbreak of the COVID-19 pandemic. Such massive upheavals severely affected the educational system in the country, and this chapter explicitly addresses challenges pertaining to teachers' qualifying programs, performance, evaluation, and ongoing training. The chapter lays out the groundwork for surviving such turbulent times and suggests a vision for post-conflict recovery. The vision includes an overall reform framework that accounts for optimizing informal learning and private education to compensate for the shortcoming of formal education. It also corresponds to the post-method pedagogy in which teachers design their teaching based on local identities and political, cultural, and social aspects.

**Keywords** Armed conflict · Teacher training · Turbulent times · Professional development (PD)

# Introduction

Yemen, dubbed the Arabia Felix, has rich history and deep-rooted civilization that inspired many other nations, yet it has not always been a happy land. This populous country in the Arab peninsula had times of darkness owing to political unrest (Al-Ahdal, 2014; Al-Kadi & Ali, 2022; Moqbel, 2014; Muthanna, 2015; Yemen Education Cluster, 2020). In Yemen modern history, 1962, 1990, 2011, 2015, and 2020 were the turning points of action during which Yemen's political situation was shaped and reshaped. Nevertheless, the period 2011–2022 has a sharply marked difference in everything in the country, and its consequences are continuing. This chapter outlines the growth and decline of teacher education (hereafter TE) across

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six decades (1962–2022). Relevant literature has been used as a point of departure to outline TE over the passing sixty years. It basically departed from Milton (2018) who perceived post-conflict reforms as "a chance to (a) adopt new modes of learning, (b) invest in the latest educational technologies, (c) introduce more effective governance mechanisms... and (d) build back better rather than simply restore preconflict systems" (p. 53). In addition, the query draws on relevant documents by international organizations/NGOs (e.g., UNESCO and GCPEA) and interviews with teacher trainers and educational leadership in challenging times, and Heck and Ambrosetti's (2018), *Teacher Education in and for Uncertain Times*. Both are used to highlight some opportunities for teacher preparation programs in the post-war period.

The chapter commences with an account of the educational expansion since the 1962 Revolution, which had aftermaths that led to the 2011 political and social transformations. It specifically delves into the challenges arising from the 2011 political turmoil, the 2015 war, and the 2020 COVID-19 pandemic. These incidents brought about hard times for teachers that inevitably affected their pre-service and in-service training, performance, evaluation, and professional development (PD). The period 2011–2021 stigmatizes Yemen with conflict and instability. It has detrimental impacts on TE that this endeavor brings to the foreground. Teachers during this decade witnessed unprecedented challenges that shook education to its foundations. Teacher training ended up underfunding that led to stagnant PD. Nonetheless, some reform plans capitalize on a balance of private and public provision, reversal of the brain drain from academia, and- above all- regaining peace and security to this war-torn country in the Middle East region.

# A Glimpse of Teacher Education in Yemen

Before the political uprising in 2011, the TE programs incorporated in public and private universities prepared specialized teachers more capable of teaching the primary and secondary school stages. Pre-service and in-service teachers are prepared to teach at the different schooling level stages extending over twelve years. The main-stream education ladder in Yemen is twelve years—the first nine years are known as general primary education. The next three years divide secondary education into *scientific, literary, vocational, agricultural,* and *technical* sections (Al-Ahdal, 2014; Moqbel, 2014). To all secondary school students, passing the final national examinations is construed as "passports" to pursue university studies. Those who choose to be teachers undertake pre-service teacher training in education colleges and higher institutes of teacher qualifying (Al-Ahdal, 2014; Al-Kadi & Ali, 2022; Mokbel, 2014). The entrants are taught to be school teachers. In-service teachers are trained to teach and update teaching methods in continuing education centers or training workshops that the Ministry of Education and Ministry of Higher Education organize from time to time (Al-Ahdal, 2014; Moqbel, 2014).

University formal training programs comprise general education, primary education, continuing education, and literacy and elderly education (Supreme Council for Educational Planning, 2010). A bachelor's degree in education comprises 54 courses stretching over a 4-year course of teacher preparation, and this number of courses varies from one university to another (Al-Ahdal, 2014). Whatever the course duration, such training is necessary "to ease the transition from college to classroom teaching" (Richter, et al., 2014, p. 100). Yemen pre-service teacher training programs involve a period of practicum during which teachers-in-training observe (and also teach) ongoing classes at schools.

Teachers-in-training are taught educational pedagogy traditionally, yet training, by all means, gives them insightful ideas to the profession. Some teachers choose to go through competitive selections to continue their higher studies at local universities or abroad. In 2009–2010 per se, 244 teachers were de-batched to different universities outside Yemen to pursue their higher studies in educational sciences (Supreme Council for Educational Planning, 2010). Upon getting their M.A.'s and Ph.D.'s, such degree holders, upon returning, participate in the educational policy, curriculum development, and supervisory.

### Two Generations of Teachers

Richter et al. (2014) maintained that the teaching career generally has three stagesbeginning, middle, and end of the profession. According to Richter et al.'s contention, "the last phase of the teaching career begins with approximately 30 years of teaching experience" and at this point of time in their career, most of the teachers prepare for departing the profession. At this stage, the authors found teachers decrease "their commitment and career ambition, instead of focusing more on personal goals" (p. 102). When retirement is due, teachers' involvement in PD activities decrease. With reference to the Yemeni context, two generations of teachers can be discussed. The first generation grew from 1962 to 1990, and the second generation began from 1990 up till the present time. The former generation, retired or about to retire now, was trained with a zeal to meet the revolution goals—enhancing education and making it accessible to the citizens. They nurtured nationalism and were highly motivated to become teachers because teachers were highly respected during that era. They were taken as a role model for students. They were responsible for transmitting knowledge and values, and they were, by and large, competent to do so (Massialas & Jarrar, 1991).

Nonetheless, many teachers of the old generation are mooted as "digitally illiterate" or at least less capable of using technology for teaching. They deliver education to a generation of students (technology gurus) who grew up with digital technology. This predigital technology generation of teachers was trained on the teacher-dominance paradigm. During their time, the educational policy enforced enrollment in general education, established teaching and training programs (Al-Ahdal, 2014; Moqbel, 2014; Muthanna & Karaman, 2011). Teachers from other countries such as Egypt, Tunisia, Sudan, Jordan, and India participated in early educational planning, teaching programs, and supervisory. Toward the closure of the twentieth century, the growing emphasis on learner-centeredness incentivized many studies to focus on learners and learning rather than teachers and teaching (Al-Kadi & Ali, 2022; Moqbel, 2014; Sahu, 2008). Again, the post-method era now regains the teacher's position in the learning and teaching process with new roles and duties to design their teaching according to local needs and norms (Al-Kadi, 2020). Incompetent teachers, however, should feel short behind to live up to the post-method requirements.

The second generation of teachers started to grow in the 1990s. The two parts of Yemen reunified on May 22, 1990. Thus, the two educational systems (including the body of teachers) were merged and were subsequently a target of change— changes that posed unique challenges in dealing with political, economic, and societal demands. The formation of this generation coincided with tremendous development in information technology and curriculum development (Kasemsap, 2017) along with continuous professional development (CPD). These changes rightly corresponded to the electronic force that gave a new shape and meaning to human life. The advent of the twenty-first century, when the second generation of teachers was already in the frame, brought more political uprising to the country.

The chaos decayed the mainstream education in due course, and an upsurge of private education (schools and universities) took place. According to the 2009–2010 educational statistics, nine public universities offered teacher training programs, and only five private universities offered similar programs. The total number of entrants who joined the teacher preparation program in the public universities was estimated at 16,687 (10,705 male versus 5982 female). In the private universities, however, the entrants were only 309, both male and female (Supreme Council for Educational Planning, 2010). It illustrates the increasing demand for teacher training programs in public universities and that the private sector does not give priority to teacher training programs.

Despite challenging circumstances, education remained "resilient" for operating during all the turbulences, especially the war and political instability that took place lately. Due to waves of displacement and teacher dropout, under-qualified and non-qualified teachers (from out of the teaching field) volunteered to teach and let education keep going.

# Major Challenges

Teacher education, which varies from country to country, has been in the frame as a major of Yemen higher education. It encountered numerous challenges throughout the political instability in the country since the 1962 Revolution. Tracing TE throughout 1962–2022, Fig. 5.1 shows how TE evolved and then declined. Al-Ahdal (2014) thought there was limited none-institutional teacher training before the 1962 era and it merely served the monarchy at that time. It expanded quantitatively after the enlightening revolution of 1962. Nonetheless, the quality insurance remained



Fig. 5.1 Teacher education over the last six decades

questionable. All the interviewees who took part in this study (n = 7) hailed the period 1990–2010 and recognized it as a golden time of TE in Yemen. However, this progress did not survive for long. TE programs declined sharply during the passing decade (2011 onward). TE is now rife with shortage of everything. It suffers a shortage of resources, infrastructures, teaching materials, and specialized teachers, with varying degrees in the northern and southern parts (Al-Ahdal, 2014; Moqbel, 2014; Muthanna & Karaman, 2011).

In response to a question on the effects of war and political conflict on TE during the period in question, a senior educationalist at the Ministry of Education asserts that:

Academic standards have decreased, waves of displacement have led to dropouts, students' enrolment continues to be in temporary schools with overcrowded classes (average 50-70 students), and some schools close when there is a need to use them as shelters for the displaced.

In such a deteriorating situation, teaching generally goes unsupervised (Al-Kadi & Ali, 2022). The supervisory boards hardly play roles beyond routine visits to schools. Compared to the supervisory system before the turmoil, a grade-level or subject-related supervisory used to get underway as soon as the school year started (Ornstein & Lasley, 2000) to help teachers to "plan lessons, suggests appropriate materials and media, and provides curriculum suggestions" (Ornstein & Lasley, 2000, p. 520). It was also beneficial for learning about teacher's abilities and needs. Many reports about teachers' performance used for promotion were based on such supervisory visits. Without ample training, teachers likely become short-sighted in designing their teaching on local sociocultural sensitivity. They tend to take patchy materials from the Internet, sometimes unwisely, for their teaching situations (Daoud, 2019).

Like other contexts beyond the Middle East countries, pre-service teacher training accentuates theoretical knowledge that is, more often than not, exam-oriented (Bashiruddin, 2018; Daoud, 2019). Milton (2018) found that higher education in contexts of conflict is heavily teacher-led and it uses didactic instruction methods based on rote memorization. The following quotation from an interview with the general manager of the Educational Qualifying and Training Center at Taiz University, illustrates the situation before and after the 2011 incidents:

The education standards before 2011 were not very high due to corruption. However, the situation was safe, and there were plenty of growth opportunities. Now, every day is a struggle, and education has become the last thing on the agenda.

During the conflict, education indicators evinced the sector fragile–access, quality, and equity are uncertain (Milton, 2018). The situation after the conflict is even vulnerable. The lack of an overall policy for teacher preparation makes teaching less attractive to many teachers (UNESCO, 2016). "Yemen needs, but appears currently to fail to offer, quality education that 'promotes tolerance, peace and security, and can support good governance and broader democratic outcomes' (UNESCO, 2013, in Muthanna, 2015, p. 142)".

# **Areas of Turbulence**

The ongoing war and political tension have drastically deteriorated the standards of teaching and learning, for the most part, and the TE programs were about to collapse. An interview with the manager of the Teacher Training Centre in Sana'a exposited that "During this time, the flow of international aids targeted humanitarian causes, and teacher education remained at the margin." Based on the interviews, sizeable effects of three sources of turbulence have encountered TE lately. The main challenge stemmed from political instability. It led to the fierce war that broke out in 2015. The COVID-19 in 2020 added insult to the injury by bringing to the foreground a worldwide health crisis—the deadly coronavirus. These three depleted the country's education services.

# Armed Conflict

Milton (2018) assumed salient adverse effects of the conflict on "higher education...including direct erosion of physical, human, and institutional capacities and the emergence of new barriers to access and equity" (p. 25). With violent atrocities that began in 2011 and escalated in 2015, the country entered into a state of anarchy, and this securitized TE with negative consequences. For instance, teachers faced political pressure to "align themselves politically and ideologically with parties to the conflict" (GCPEA, 2019, p.1). Formal statistics hardly exist on the exact number of teachers killed, injured, or forced to join the battlefields. Additionally, the teacher training programs ended up underfunding. The available resources are primarily devoted to war and politics. The former Vice-dean of the Faculty of Educator at Taiz University commented that:

The war has had drastic effects on education in general and teacher education in particular. Living the worst humanitarian crisis Yemen has had over about half a century, teachers struggle to survive and feed themselves and their families. Besides, it has become unsafe for locals to travel from one place to another, let alone bring trainers from outside the country. Attacks on education, particularly airstrikes, crossfire, and ground fighting, posed grave risks to students and staff—the resurgence of fighting damaged schools, technical institutes, and universities (GCPEA, 2019). According to Yemen Education Cluster (2020), 256 schools were destroyed, 1520 were damaged, and armed groups occupied 23. Consequently, numerous children dropped out of school since the inception of the conflict. The situation spurs teachers to "seek out alternative livelihoods or supplement their low income in other ways" (Yemen Education Cluster, 2020). Infrequent and insufficient teacher salaries discouraged in-service teachers from even thinking of training. Some teachers keep on teaching, though, under challenging conditions. An associate professor of English and a teacher trainer at Ibb University ascertained that:

Teachers, who were 100% dependent on their salaries, have not been receiving anything since 2015. One cannot imagine their lives, especially when almost all of them have families of at least four children. I know many of them who resorted to selling goods on the streets, working as cab drivers or any other job that would help them put food on the table.

Moreover, the political situation, fueled by the fierce war, shattered what has remained from the educational system into north and south administrations. This division "challenges mounting a harmonized country-wide response" (Yemen Education Crisis, 2020, p. 1).

# COVID-19 Pandemic

The COVID-19 pandemic and its containment measures have provoked some other educational issues. Schools have been used to triage or treat the corona cases. The crisis aroused opportunities for online classes and webinars that may reinvigorate the education system in Yemen. Yet, successful investment in this learning mode is less fruitful owing to a shortage of internet services. The coronavirus that coincided with the armed conflict in the country spilled over into frustration and dilemmas that pushed many teachers to leave the profession.

The pandemic has shaped new teaching contexts. Although teachers felt uncertain about addressing such emergent turbulences, Bufalino (2021) holds an optimistic view that the pandemic has created further chances for teachers to practice leadership and improve their creativity and innovation. Again, this is quite critical in Yemen at this time. While remote learning/teaching stepped up since 2020 in the worldwide arena (Mann, 2021), a shift to this mode of learning has several barriers in the context of Yemen. This is due to insufficient infrastructure and affordable data packages to access PD. Mann (2021) found that teachers and teacher educators preferred WhatsApp for it has been a viable means of communicating "to provide worksheets and quizzes to language learners" (p. 9), but WhatsApp-based education has not been standardized.

# Learner-Related Turbulence

Today's generation of learners has features different from their predecessors. Under the influence of the war and pandemic, the student cohorts who witnessed such crises have less faith in and negative attitudes toward formal education. They have become "disenfranchised with formal schooling," dropping out or turning to private education. Thanks to ICT (Daoud, 2019; Davis, 1998), communication has changed drastically, making learners even more independent from teachers. In terms of technology, many untrained teachers are incompetent CALL teachers. A gap persists between such less-technology-using teachers and the cohort of digital natives. The digital era is a challenge for the old generation of teachers who find difficulties in using technology that their students use on a daily basis. Technologies such as social media, blogs, virtual learning, and suchlike have been increasingly used in teaching, and teachers inept with such technologies would seem alien and backward if they do not meet the learners' needs (Erkaya & Ergünay, 2021; Kasemsap, 2017; Ornstein & Lasley, 2000).

# **Education Change**

Education, touted as the loci of societal overall development, is a developmental sector; it continues changing (Forlin, 2010; Sahu, 2008). Because the curricula and course contents in the context at hand remained unchanged for several years, Sahu (2008) speculated a dire need for curriculum review to link education to the social and economic requirements. Given the worldwide change in teaching methods and materials, the post-method pedagogy encourages teachers to prepare their materials on local identities, needs, political, and cultural aspects (Daoud, 2019; Kumaravadivelu, 2006). With remarkable efforts to reform the educational system, there are attempts to move toward the changeable systems in terms of approaches, methods, and paradigm shift (Kasemsap, 2017). In contexts that experience bureaucratic hurdles and budgetary restrictions as in the context at hand, Daoud (2019) noted that "program goals and objectives... are weakened as they are translated into textbooks, lesson plans, classroom activities and tests" (p. 180). Muthanna and Karaman (2011) argued that education in Yemen needs "clear-cut standards and program philosophy statements" (pp. 230–231). There is little support to design curricula on exploratory notions. The existing curricula, dominated by the theoretical aspects, suffer a mismatch of the outcomes and demands of the job market (Supreme Council for Educational Planning, 2010). Jones (2010) proposed a teacher-oriented framework for curriculum development that humanizes and considers the learning and teaching complexities.

Such challenges, common in fragile contexts, also exist in some other contexts. Teachers with insufficient training in an array of different contexts "come to their first job with an inadequate and oversimplified notion of classroom practice" (Ornstein & Lasley, 2000, p. 506). Given contextual circumstances, training and PD enlighten them to update their teaching methods and approaches to classroom management, learning and teaching.

### **Prospects for Teacher Education**

Yemen, when stabilized, "is poised to be more integrated with the regional and global economy" (World Bank, 2010, p. 1). The unprecedented circumstances abound to the country require an interventionary approach to the post-conflict era. Although the current situation is despondent, there is a hope to build resilience to reduce the effects of protracted crises on education (UNESCO, 2016). It requires more of everything to make a breakthrough in the current situation. Some considerations may help transit to the post-war phase and reshape TE: preparing teachers to work with parents (Hornby, 2010), using reflective practices for the preparation of pre-service teachers (Al-Ahdal, 2014; Kasemsap, 2017; Sharma, 2010), and effective co-teaching (Wang & Fitch, 2010). Bashiruddin (2018) argued that teachers' reflections on their past experiences help them to unearth critical incidents affecting "their perceptions of teaching" (p. 181). It is to be noted that shifts influence the trajectory of TE in post-conflict contexts in development theory and practice. In the given context, to alleviate the current developable situation and achieve the desired targets, there should be a change in the programs requiring news outlooks, new strategies and approaches—programs that fittingly correspond to the developmental needs of postconflict societies. Milton (2018) noticed that in contexts of conflict, there would be a possibility to "build back better rather than simply restore preconflict systems" (p. 53). The recipes that enabled past successes may be "relevant to sustaining these successes and building on them to take up looming new challenges" (World Bank, 2010, p. 1).

### Enhancing Informal Education

The increased learners' needs which are intense, demanding, and difficult to fully address (Erkaya & Ergünay, 2021; Forlin, 2010), places considerable demands on teachers. This inevitably requires radical changes in teacher preparation programs and PD in the context at hand. Technology facilities learning and teaching beyond formal education (Ornstein & Lasley, 2000) and is even helpful in turbulent times; it formally and informally promotes the bedrock of teacher PD (Al-Ahdal, 2014). Information and Communication Technology (ICT) has created a vast global community of networks, enabling access to an array of topics "within and outside the curriculum" (Davis, 1998, p. 165). However, this access cannot be devoid of concerns. At the foremost, increased access amplifies "unauthorized and possibly malicious use"

(Davis, 1998, p. 168). With limited resources and financial support under the war economy in Yemen, this matter becomes more complicated.

Given the poor education-related infrastructure and lack of safety, a defensible plan comprises a blended approach that combines formal and informal learning to learn remotely. Prior research has shown that informal and self-regulated online/remote learning (Whitehouse et al. (2010) compensate for limited contact hours. Nevertheless, empowered autonomous learners who manage their learning online require empowered, independent teachers who encourage and guide learning. In other words, independent teachers empower autonomous learners (Daoud, 2019). In contexts wherein teachers and learners are genuinely inclined to teacher-directed instruction, it seems complicated to leap from book-bound teaching and exam-based assessment to completely learner-centered education. Hence, it would be reasonable to adopt gradual changes toward this target.

# **Encourage Private Education**

Formal education has common challenges that basically stem from population explosion and increased demand for education, a scarcity of updated and ancillary teaching materials (Al-Ahdal, 2014; Moqbel, 2014). The existing circumstances of Yemen has given rise to private education which is flourishing (Al-Kadi & Ali, 2022). Massialas and Jarrar (1991) encouraged involving the private sector "to deliver services not supplied by governments as long as it does not exclude students as a function of social class, gender, ethnicity, religious belief, or place of residence" (p. 200). For the most part, in Yemen, education has long been largely the preserve of public providers. Under the ongoing war and political conflict public education has become of low quality (Al-Kadi & Ali, 2022; UNESCO, 2016). The private sector in the country has established itself to "fill a niche" to meet excess demand with little or no public expenditure, and this encourages investment in privatizing public higher education (Milton, 2018).

Nonetheless, private education in Yemen is still unripe. Many view it as spoonfed sort of tutoring and certification that lack wide societal and formal recognition. The problem with private education institutions is recruiting less qualified staff because they want to economize expenditure. Besides, the recruits are usually relatives or friends of the investors, which poses a question mark on equality of recruitment chances. Again, private education is affordable to a small percentage of the population. Proponents of private education such as Milton (2018) argued that "the private sector is vital to bringing much-needed investment into such under-resourced education systems" (p. 77). It could be directed to become more helpful in creating individuals reliable for more tasks and roles to play in the future.

# **Optimizing Pedagogical Changes**

Returning to the teacher's position in the post-method era (Jones, 2010; Kumaravadivelu, 2006) revitalizes teaching and PD, addressing the unmet needs and skills of the twenty-first century (Al-Kadi & Ali, 2022; Erkaya & Ergünay, 2021; Moqbel, 2014). A shift of educational policy-making requires a move from the prescriptive method to the post-method pedagogy that repositions teachers in the curriculum, helps them understand their constraints, shapes their roles, and determines their actions (Daoud, 2019). Arguably, teachers are both born and made (Ornstein & Lasley, 2000). They have inborn abilities to act as teachers, and they are partly made in teacher education institutions that promote necessary skills for the profession. Mansfield et al. (2018) contend that "non-academic capabilities at the point of entry to teacher education have benefits" (p. 84) and "some of the measurement capabilities are innate and fixed, or can be developed over time" (p. 84). In addition to such innate abilities, Ornstein and Lasley (2000) commented that the teachers' knowledge they acquire on the job helps them "to modify, adapt, and reconstruct their views as a teacher and their teaching methods" (p. 506). Forlin (2010) thought that in the new knowledge-based paradigm, teacher training programs at institutions and colleges should meet the changes in TE driven by political and social forces. Studies show that the most effective way to improve the education standards begins with teacher quality. Teacher preparation programs "should build on teachers' prior experiences, and ample teaching practice should be part of the programs to prepare them for teaching in schools in their respective contexts" (Bashiruddin, 2018, p. 181).

In a bid to improve TE, pedagogical transformation is inevitable. The curricula, assessment, teaching and learning approaches, pedagogical innovations and practices, and PD should be overhauled (Holloway, 2021; Kasemsap, 2017; Ornstein & Lasley, 2000). The "watered-down programs" of educational planning policies likely impede the provision of "good normal education" to the down-top approach that empowers teachers to design their teaching (Daoud, 2019) based on their local identities and political, cultural, and social factors (Al-Kadi, 2020; Kumaravadivelu, 2006). International actors involved in education reform including the World Bank projects promote practice-oriented and student-led pedagogical approaches in conflict-affected contexts. A shift from teacher dominance to learner autonomy has increased, and informal learning has stepped up intertwined with formal education.

As for informal teacher training, Richter et al. (2014) provided insights into learning from other colleagues' experiences and self-developed skills. The authors opined that formal and informal training opportunities extend teachers' professional competence (Erkaya & Ergünay, 2021; Moqbel, 2014). Formal training includes mandatory workshops and seminars, which are mainly full or half-day training activities.



Fig. 5.2 Possibilities of future teaching training framework

However, informal training opportunities are at teachers' initiatives and enable them to independently decide on their teaching goals and strategies. It encompasses individual and collaborative activities, e.g., classroom observations, conversations with colleagues, and teacher study groups and networks. Such opportunities, embedded in the context of the classroom, enable teachers to learn from their colleagues and reflect on their practice (Richter et al., 2014, p. 89) (Fig. 5.2).

Given the repercussions of formal education, Sahu (2008) surmised that formal school education per se is insufficient to achieve desired learning objectives. Reliance on formal education has mainly been subsided. It should be complemented by informal learning and training. The new curriculum requires necessary changes in the time allotted to classes, the physical environment, and cooperation (Richter et al., 2014). When teaching procedures change, the schedule must be more flexible to allow for formats instead of the uniform plan that allocates a certain amount of time devoted to classes. Teachers should imbibe the idea that they could partake in constructing knowledge rather than merely transmitting it. (Arvaja et al., 2010; Bashiruddin, 2018).

For the suggestions mentioned earlier to be a success, education itself should be protected—protecting education manifests itself in establishing a safe learning space. The post-conflict authorities will have to mobilize sufficient resources to rebuild the complex and expensive higher education system, including TE. All the parties involved in the conflict and the international community should ensure that Yemeni students, education personnel, schools and universities remain safe and secure (GCPEA, 2019). The education leaders need to consider retaining teachers (Muthanna, 2015), for retention is critical to the viability of the system. Their retention involves a safe learning environment wherein they can feel safe and secure.

# Conclusion

This chapter elucidated the evolution of TE in Yemen over the last six decades, during which TE witnessed growth and decline. Besides describing how teacher career pathways grew and evolved throughout the passing decades, the chapter celebrates individual teachers' voices, explores their narratives to identify major challenges, and discusses the implications for further teacher growth. The challenges they face and the adjustments required to reconstruct TE in the post-conflict era involve "many tensions and trade-offs" (Milton, 2018, p. 53). Nevertheless, there would be minor breakthrough unless these recommendations are supported by the legislative government and world organizations interventions.

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# Appendix

### Interview questions

Turbulences of Teacher Education Across Decades in Yemen

**1.** How would you evaluate the overall state of teacher education prior to the conflict that erupted in 2015/2011?

#### 2. How do you rate teacher education during these times?

	Non-existent	Growing	Declining	Not sure
Pre-1962				
1990				
2011				
2015				
2020				
Post-2020				

**3.** What are the major ways in which the war/covid-19 in Yemen affected teacher education?

**4.** To what extent the on-going war and the coronavirus impacted the following aspects of teacher education?

		very badly	Badly	Little	No			
		affected	affected	affect	affect			
	teacher performance							
	evaluation							
	teacher preparation programs							
	Continuing training							
5.	5. What are the main challenges generally facing teacher education in Yemen before and after the conflict?							
				• • • • • • • • • • • • • • • • • • • •				
6	Which of the fellowing of			han admaatian9				
0.	which of the following a	e possible solutio	is to save teach	ner education?				
	privatizing education	boosting in	formal learnin	g				
	Empowering teachers	Other (pleased)	se specify)					
<b>7.</b> Put the following in order as factors impacting teacher education over the last decade (2011-2021)?								
	Corona virus	War						
	Political instability	🔲 Other (ple	ase specify))					
				•••••				
8. Any other comments?								

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# **Chapter 6 Teacher Education in Oman: Retrospectives and Prospects**



Sulaiman M. Al-Balushi, Aisha S. Al-Harthi, and Mohamed A. Shahat

**Abstract** Teacher education in Oman went through different transformations due to political, social, and economic reforms. The current situation suggests ambitious national aspirations and strategic plans to equip Omani teacher candidates with the knowledge, skills, and dispositions that are aligned with national and international standards. Therefore, teacher education programs adopted different pedagogical innovations and practices in the country. Some of these changes and practices responded to the labor market needs and challenges, while others came from the quest for quality and research outcomes. This chapter describes the historical and contextual background of teacher education in Oman. Using a retrospective approach, the chapter reflects on the earlier and current practices of teacher education, questions the quality of their outcomes, describes major challenges, and identifies intended future aspirations. In doing so, we highlight some issues pertinent to teacher education programs, including government regulations, program design, curriculum, pedagogical practices and innovations, field experiences, and partnership between academic providers and school authorities. The chapter also sheds light on program quality assurance measures, national and international accreditation, teacher quality, and recruitment of prospective teachers.

Keywords Teacher education  $\cdot$  Oman  $\cdot$  Restructuring  $\cdot$  Accreditation  $\cdot$  National standards

# History of Teacher Education in Oman

Teacher education in Oman went through many stages that need to be understood within the development of the overall education system in the country and the pace of its development.

The year 1970 marked the beginning of the Omani renaissance when His Majesty Sultan Qaboos Bin Said ascended to the throne. From the very beginning, he made

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education one of his main priorities for development. Thus, significant milestones were achieved in education overall and more specifically in teacher education.

For readers not familiar with the country, it is significant to illuminate the development scope. At the time, like the other Gulf countries, Oman was blessed with the discovery of oil and was the source of its economic empowerment. Educational opportunities were minimal before the 1970s. They were mainly offered through "Islamic Schools," also referred to as "Quranic Schools," which mainly focused on teaching the Quran and simple Arabic reading and writing. Teachers at Islamic schools would have studied in similar Islamic schools that were a bit more advanced and only available in the major cities like Rustaq, Izki, and Nizwa. No teacher preparation is required to become a teacher in these schools. Even after the 1970s, some of these schools continued to operate but were formalized by the Ministry of Education and the Ministry of Endowments and Religious Affairs.

There were only three "modern education schools" in Oman at the dawn of 1970, with about 900 students in two cities (Ministry of Education. n.d.), which exponentially increased to 1163 government schools in 2020 all over the country. Parallel to that, the number of teachers grew over the years, as demonstrated in Fig. 6.1, to reach 56,827 teachers (38,834 females and 17,993 males), of whom 84.8% are Omani nationals (). Most of these teachers have graduated from Omani higher education institutions.

Within the previously explained exponential growth of the educational system in Oman, we will divide the development of teacher preparation into four distinct phases, summarized in Fig. 6.2. These phases reflect the major milestones for developing



**Fig. 6.1** Growth in the number of teachers in Oman from the 1st to the 10th development plan. *Note* The number of development plans in the chart above is the lower number starting from 1 to 10, above this number is the plan five-year period, and above this is the baseline year, chosen here to be the beginning year of the plan. Statistics Sources: (Ministry of Education., 2021a, 2021b; 2016; 2011 & n.d.)

#### 6 Teacher Education in Oman: Retrospectives and Prospects



Fig. 6.2 Stages of the development of teacher education program in Oman

teacher preparation institutions across the strategic long- and short-term development plans. Most of the descriptions and statistics for phases one and two are based on a study by Issan (1995).

# Phase 1: The Humble Beginning of TE

Phase 1 marks the initiation of the first formal teacher education program in the country in 1975/76. This was also referred to as "The First Programme." This short-lived program accepted teacher candidates who finished today's equivalent to grade seven middle-school graduates. The length of the program was two years, and about twenty-five teachers graduated from it. While nowadays, admitting such young students to become teachers is not plausible, it is important to point out that the country at that time was at its commencement of a new era, and there was an extreme scarcity of teachers. Two years later, 1977/78, this program was developed to become a secondary school for teachers, moving its candidate pool to be ninth-grade school graduates to be admitted to this secondary school to prepare them to become teachers after graduation. This was a three-year program. In 1979/80, the school evolved to be the Institute for Teachers two years later. It started to accept candidates who finished secondary school in the program to study for one year to gain a diploma in teaching primary education. This institute graduated from about 2521 teachers (Issan, 1995). All the transformation in this stage marks a humble beginning of teacher preparation in the country to quickly respond to the urgent need for teachers, as the educational system was growing in terms of the number of students and schools.

# Phase II: Developing TE at the Higher Education Level

Moving to stage two during the eighties and nineties, this is the stage, which the higher education system was developed in the country, including teacher education. First, the teacher institute was transformed into colleges, named "Intermediate Teachers Colleges." They were called "intermediate" because they gave a two-year diploma rather than a bachelor's degree and accepted secondary school graduates. Initially, there were two colleges, and by the year 1993/94, they increased to nine colleges, with separate campuses for male and female students. By the year 1993/94, these colleges graduated about 6207 teachers. In 1995/96, these colleges were further upgraded into "Colleges of Education" to offer four-year bachelor's degree of education. The second most important event was the establishment of the College of Education at Sultan Qaboos University, which opened for its first cohort in 1986/87. Additionally, in 1991/92, another organization, "The Qualification Institute for Teachers," was established to prepare university graduates holding a bachelor's degree in fields other than education to become teachers. This institute operated only for four years and was closed in 1994/95 (Issan, 1995).

By the end of this phase of TE, Omani teachers held different professional certifications (i.e., secondary school, diploma, and bachelor) with a preparation period including one, two, or four years. This variation was recognized and purposefully remediated through a program to unify teacher qualifications by upgrading all teachers' degrees to be at least at the diploma level (i.e., two-year higher education degree) (Issan, 1995). This was important to the country at that time as it was embarking on a new educational reform in 1998, which brought about the application of its basic education structure. In this structure, education was organized into two cycles, one from grades 1 to 4 and the second from 5 to 10, with two years following that as a post-basic education cycle (The Ministry of Education & The World Bank, 2012).

# Phase III: Restructuring and Privatization of TE

At stage three, which occurred during the 2000s, another restructuring of the colleges of education occurred by transforming them from colleges of education to colleges of applied sciences, moving them away from teacher preparation. The only college that continued to offer teacher education was the one in Al Rustaq, which was later named back as a College of Education in 2017. Additionally, efforts for re-training teachers continued during this period. It included tailored programs to upgrade teachers with a two-year diploma to a bachelor's degree, such as the program for English teachers with Leeds University (England) and the Bachelor of Educational Administration program with Sultan Qaboos University (Issan, 2005).

Currently, teachers in Oman are prepared in public and private higher education institutions (HEIs) (Al-Bulushi, et al., 2018). There are presently six HEIs in Oman

offering teacher education programs, two public institutions (Sultan Qaboos University (SQU) and the College of Education in Al Rustaq), and four private institutions (University of Nizwa (UoN), Sohar University (SU), Dhofar University (DU), and A'Sharqiyah University (ASU). Therefore, this stage marks the entrance of private higher education institutions into teacher education. The availability of these private HEIs widened higher educational opportunities, which were previously exclusively possible only through Sultan Qaboos University or overseas studies. As Al Shmeli (2009) explains, there are two main drivers for the expansion of private higher education in the country, one is the rapid economic development, and the second one is the increasing number of secondary school graduates.

# Phase VI: Quest for Accreditation and Quality TE

The final stage, stage four, reflects the quest of these competing teacher education programs to assure quality and gain national and international recognition. This is coming from the need to prove the quality of their programs through the process of institutional and program accreditation by the Oman Authority for Academic Accreditation and Quality Assurance of Education (OAAAQA) (OAAAQA, 2022a). This process was mandated with establishing the OAAAQA with a Royal Decree in 2001. All institutions must go through a two-phase process: auditing and standard assessment, after which institutions are granted accreditation (OAC, 2008). Currently, the higher education institutions hosting teacher education programs are at different phases in this process.

Program accreditation by the OAAAQA is still under development, and it is expected to assess programs against "national generic program standards" (OAAAQA, 2022c). Therefore, in the lack of nationally specific teacher education standards, international standards provide a benchmark to elevate the quality of teacher education and guidelines for program improvements. Hence, different SQU teacher education programs have received academic recognition from specialty professional associations (SPAs) in the USA. These programs were English Teaching and Learning (recognized by the American Council on the Teaching of Foreign Languages [ACTFL]), science education (recognized by the National Science Teachers Association [NSTA]), instructional and learning technology (recognized by the International Society for Technology in Education [ISTE]), math education (recognized by the (National Council of Teachers of Mathematics [NCTM]), and early childhood education (recognized by the National Association for the Education of Young Children [NAEYC]) (Al-Balushi et al., 2020; Al Barwani & Bailey, 2016). To receive this recognition, the programs aligned their courses and assessments to the standards of these specialized associations, which conducted extensive reviews of program self-studies, data, and evidence.

Furthermore, the SQU physical education program was aligned to the standards of the National Association for Sport and Physical Education (NASPE) (Al-Sinani, et al., 2021). Additionally, the art education program has aligned its courses and

experiences with the National Association of School of Art and Design (NASAD) and received an external review panel, which reviewed the program based on these standards and reported positive feedback regarding its effectiveness.

Thus, in addition to national recognition, the program in the College of Education at Sultan Qaboos University (SOU) also achieved international recognition from the National Council for Accreditation of Teacher Education (NCATE) in 2016 (Al-Balushi, et al., 2020; Al-Barwani & Bailey, 2016). As a result of this process, as Al-Barwani (2016) reported, SQU teacher education programs went under many changes, including changes in the degree plans, admission process, and extensive increase in the number of hours of the teaching practice from 150 to 450 h to increase the exposure of future teachers to the classroom environment. Furthermore, SQU TE programs have adopted a number of best practices such as building a resilient partnership with schools, strengthening the collaboration between university supervisors and cooperating teachers, enhancing the mentoring and assessment skills of cooperating teachers through an intensive professional development program, facilitating effective mentor feedback, and utilizing the use of digital teaching portfolio (Al-Malki, 2017). Furthermore, the diversity of candidate assessments has expanded to include course content analysis, teaching unit plan, a comprehensive teaching practice observation form, reflective portfolio, and graduation projects (Al-Amri, 2015).

# **Context and Design of Teacher Education Programs**

Although the graduates of the teacher education programs in Oman may teach in government and private schools, they are prepared mainly for the government school system, which is composed of two main stages: (1) basic education and (2) postbasic education. The basic education stage has two main cycles: (1) cycle one for grades 1–4 and (2) cycle two for grades 5–10. The post-basic education is for grades 11 and 12 (Nasser, 2019). While cycle one schools are mix-gender and taught by female teachers, other grade levels are single-gender and taught by same-gender teachers. The graduates of grade 12 get a general high school diploma certificate that enables them to pursue higher education degrees. Most teachers in the private schools, especially international and bilingual schools, are expatriates coming from Arab countries for Arabic subjects and English-speaking countries for English topics.

# Middle and Secondary Education Programs

Two different teacher education programs prepare middle and secondary school teachers in Oman. These are:

- 1. **Bachelor's degree programs:** These are four-year undergraduate programs that admit graduates of high school diploma to study subject matter courses (60%), pedagogical courses (30%), and general university and elective courses (10%). They also do their training (i.e., practicum) in public schools. These TE programs prepare middle- and secondary school teachers in the following areas: early childhood education, Arabic language, English language, Islamic sciences, science (including biology, chemistry, and physics), mathematics, educational technology, social studies, art education, and music education.
- 2. **Diploma degree programs:** These are one-year program that admit holders of bachelor's degrees in a school-related subject matter (e.g., biology, mathematics, geography, Arabic language, etc.) (Shahat et al., 2021). This diploma program focuses on pedagogical knowledge field training in public schools.

In the academic year 2019/2020, 1095 new teachers graduated from the Omani teacher education, among whom there were about 706 teachers who graduated from the bachelor programs, while 389 graduated from the diploma programs (MOHERI, 2021).

# **Primary Education Programs**

The Omani HEIs (i.e., UoN, SU, and ASU) prepare primary school teachers to adopt a two-stream model, which prepares teachers in two major fields: humanities (Islamic sciences, Arabic language, and social sciences) and sciences (science and mathematics). The primary education programs are bachelor's degree programs that are for four years during which prospective teachers study subject matter courses (45%), pedagogical courses (45%), and general university and elective courses (10%). They also do their training (i.e., practicum) in government schools. Since the graduates of the primary TE programs teach in cycle one schools, which are mix-gender that are taught by female teachers only, females represent the only intakes to these programs (Al-Malki, 2017).

# **Quality Assurance of Teacher Education Programs in Oman**

"High-quality education for all" represents one of the principles of the Philosophy of Education in Oman, and "promote the efficiency of teachers and improve standards in the quality of their preparation and training" is one of the objectives under this main principle (Education Council, 2017, pp. 24–25). Ingvarson and Rowley (2017) provide an indication of the quality monitoring of teacher education in Oman. They investigated the quality of mathematics teacher education programs in 17 different countries, including Oman. Oman was classified among the countries with a strong control of teachers' entry to the profession. Additionally, only three countries (i.e., Germany, Oman, and Singapore) reported that most prospective teachers were selected from the top 20% of the age cohort. As for the recruitment process, Oman was among few countries requiring teacher education graduates to meet performance requirements and pass a recruitment test before entering the profession.

On the other hand, Oman was rated medium on the "attractiveness and status of teaching as a profession and a career" criterion. Overall, the study's findings indicated a consistent positive association between the strength of a country's quality assurance arrangements and future teachers' knowledge of the subject matter. The quality of teacher education programs in Oman is monitored by various processes conducted at different levels before program commencement, during the program, and after program completion. These processes target program design areas, program intakes, program reviews, professional examination after program completion and prior to a job appointment, and an in-service induction program.

# Quality of Program Design

Quality control before admission is maintained through the process for program approval and design. All higher education programs, including teacher preparation programs, need to comply with the National Qualifications (NQF) (OAAAQA, 2022b). For instance, undergraduate Bachelor of Science (BSc) programs should have a minimum of 480 credit points, equivalent to 120 credit hours. Furthermore, MOHERI requires that the design of new programs to be benchmarked with reputable international programs, responses to the needs of the labor market, built-in collaboration with stakeholders and beneficiaries, and reviewed by international experts in the field (public and private universities in Oman, 2021).

# Quality of Intakes

There is a set of admission requirements to teacher education programs in Oman, which are determined and periodically reviewed by a national committee led by the Ministry of Education (MOE). Key stakeholders constitute these requirements, including the Ministry of Higher Education, Research and Innovation (MoHRI) and different HEIs (public and private universities in Oman, 2021). The admission requirements for bachelor programs in teacher education primarily set the minimum required grades in certain school subjects related to the intended specialization in the teacher education program. For instance, applicants to science teacher education programs need a minimum score of "65/100" in biology, chemistry, physics, and pure mathematics. Furthermore, applicants to skill-based programs such as art, physical, and music education need to undergo a performance assessment test (HEAC, 2021c). On the other hand, admission requirements to diploma programs in teacher education include a minimum GPA of "2.3/4.0" in a bachelor's degree, a certain number of

credit hours in the intended specialization, and other assessments. For instance, applicants to the English language teacher education program need to have a minimum of 60 credit hours in English literature and a minimum score of 6.0 on the International English Language Testing System (IELTS) (HEAC, 2021b).

Furthermore, all admitted students to undergraduate programs in the Omani HEIs need to have a minimum level in mathematics, English, and information technology. Upon admission, they need to take competency tests in these three subjects. Their results in these tests determine how much time they need to spend in a foundation program, during which they study the three subjects (HEAC, 2021c). Most students spend one year in the foundation program, while some take up to two years.

Additionally, all prospective candidates compete for higher education programs through a unified, centralized electronic application system, named the "Higher Education Admission Centre (HEAC)." Thus, all school graduates apply to the undergraduate programs in all HEIs in Oman through this central system. They register multiple program preferences, and the system then ranks orders based on their grades and the available number of seats offered in the programs they apply to (HEAC, 2021c). For example, based on this selection process, 1491 new teacher candidates (883 females and 608 males) were admitted to teacher education programs. This is a small percentage of 3.2% out of the 46,649, who graduated from school in for the academic year 2020/2021 (HEAC, 2021a; "Approval of the results of general School diploma for the year 2021–2020," 2021).

### **Program Review**

In Oman, teacher education programs are reviewed internally by their institutions and externally by external experts. While MOHERI monitors the external review of the four private teacher education providers, the external reviews of the public providers (SQU & UTAS) are monitored by the institutions themselves. Al-Bandary (2005) documented an external review of the old Colleges of Education, which were under the authority of then the Ministry of Higher Education, currently MOHERI. A team conducted the review led by a consultant from Edinburgh University (UK). The main recommendations of this review focused on improving field training, strengthening the partnership with schools, conducting regular self-assessment reviews, and maintaining the quality assurance process. Similarly, Sultan Qaboos University (SQU) has aligned each teacher education program to the respective international specialized standards. SQU also conducts regular external reviews of its teacher education programs by external reviewers from different Western universities (Al-Barwani & Bailey, 2016). These reviews have recently been linked to the SPAs and are associated with the accreditation process. Modifications are considered part of the SQU effort of continuous improvement, which CAEP requires.

On the other hand, there are no official published records of the external reviews of the private teacher education providers in Oman. However, from the authors' experience who participated in some of these reviews, the MOHERI's Directorate of Private Universities and Colleges regularly forms external review teams composed of local academics to review the teacher education programs of private HEIs. The recommendations of these review teams inform the ministry's decisions regarding the financial and logistical support given to these institutions. Additionally, as mentioned earlier, all HEIs had to conduct an internal quality audit as part of phase one of the Authority for Academic Accreditation and Quality Assurance of Education (OAAAQA). All of the quality audit reports of these institutions are made publicly available (OAAAQA, 2022d).

# **Professional Examination**

The vast majority of Oman graduates of teacher education programs apply for recruitment in government schools. Very few graduates look for opportunities to teach in private schools or find other career paths different from teaching because of more job security and benefits in the government sector than the private sector. The Ministry of Education controls government schools' recruitment process using a two-stage centralized process. The first stage is a professional test, compromised of subject area content knowledge-making 70% of the test, and pedagogical knowledge, which makes only 30% of the test. Those who pass the first stage are then moved to the second stage, in which they go through an interview. The annual passing rate of the professional test is approximately 62%. Furthermore, graduates of physical, art, and music education need to get a satisfactory level in a skill-based performance test related to their subject matter.

Additionally, graduates of English teacher education need to get a minimum score of 6.0 on the International English Language Testing System (IELTS) or a minimum of 547 points on the Test of English as a Foreign Language (TOFEL)). Around 3000 applicants enter this recruitment process annually, which is meant to ensure the quality of teachers who enter the profession. However, there is no published valid and reliable information on the recruitment test. This lack of transparency is needed to assure the ability of the test to successfully predict the effectiveness of the selected new teachers (Al-Hashmi & Klassen, 2020).

### An Induction In-Service Program

Since teacher education programs in Oman vary in their study plans and field training systems, the Ministry of Education has designed a one-year induction program for newly recruited teachers. The program covers administrative rules and regulations, school-related content knowledge, national curriculum requirements, the assessment system, modern pedagogical and technological techniques, work ethics, and school policies (Al-Barwani, 2016). The main purpose of this induction program is to bring all new teachers to a common understanding of the national curriculum and

its teaching requirements. The induction program includes two-week face-to-face courses delivered in three blocks conducted at the Specialized Institute for Professional Training of Teachers (SIPTT) (Al-Shabibi & Silvennoinen, 2018; SIPTT, 2018). However, the program does not consider the school mentoring aspect or coordinate with teacher education programs at the different HEIs (Al-Barwani, 2016).

# **Challenges and Areas of Improvement**

Despite the previously mentioned quality measures to develop and recruit quality teachers in Oman, there are several challenges facing teacher education programs. In a study jointly conducted by the Ministry of Education (MOE) and the World Bank (WB) (2012), some observations about the quality of teacher education programs were noted. Additionally, Al-Tobi (2003) analyzed the need for reforming teacher education programs in Oman. Based on these studies and our field observation, we project the following main challenges that may hinder development and innovations in teacher education.

# High Demands for Teachers

Teacher education preparation faces a major challenge to respond to the country's high demand for teachers in all specializations. Currently, there are 8651 non-Omani teachers (3684 females and 4967 males) teaching in government schools, making 15.2% of the teaching workforce (). Therefore, the MOE and WB (2012) study put forward a major recommendation to increase the number of primary education programs preparing teachers to work in cycle one of basic education. This need is further complicated by the unstable economic conditions resulting from fluctuating oil prices and the high early retirement of the current teaching task force.

# Absence of National Standards

No standards describe national expectations and priorities concerning the quality of teacher preparation programs, their designs, and graduates. This deficiency results in outdated practices or not up to international standards and less concern for quality in some programs. It may also result in gaps between the needs in schools and content taught in TE programs. For example, the MOE and WB (2012) noted the necessity of TE programs to assure their courses prepare prospective teachers to teach the national school curriculum. MOE currently has the initiative to work on teacher professional standards to develop a national framework for the teaching profession. These professional standards cover professional knowledge, skills, and dispositions

(Ministry of education, 2017). Once these standards are formalized, they should provide a clear input for the expectations of TE programs and could possibly lead to more consistency between them.

# Quality and Quantity of Field Training

Not all TE programs provide adequate school training hours to their student teachers. Furthermore, there is a lack of training on using formative assessment processes in some programs and a lack of support and resources (Al-Khatri, 2019). The MOE and WB (2012) study recommended giving more emphasis on field training experiences. Al-Malki (2017) noted the lack of areal partnership between TE provides and schools in some programs, and limited collaboration between cooperating teachers and university supervisors. Click or tap here to enter text. Furthermore, some student teachers experience reality shock when they first experience the school settings with crowded classrooms and little time for practicing the methods, and they learn in the teaching methods courses. This reality shock could lead some student teachers to adopt teacher-instructional methods and even form negative attitudes toward teaching (Ambusaidi & Al-Balushi, 2012). What might worsen this reality shock is the intensity of curricular content in some curricula, such as science subjects (biology, chemistry, physics) in Grades 11 and 12. This intensity of curricular content limits the opportunities to practice certain teaching methods that focus more on inquiry, problem-solving, and project-based learning (Ambusaidi et al., 2021). Therefore, the focus will be to cover the content instead of developing students' skills and attitudes (Shahat et al., 2021). To respond to this concern, SQU reformed its field training component by expanding it to become an entire semester during which student teachers spend full five days a week for 13 weeks in schools (Al Barwani & Bailey, 2016; Al-Bulushi, et al., 2018; Bouzenita & Al-Salimi, 2021). The current field training program was the new SQU pattern modeled after the NCATE-commissioned Blue Ribbon Panel (NCATE, 2010). The total number of hours that the candidate spends in the school increased from 150 to 420 h in most programs (Al-Barwani, 2016). CoE is working on increasing candidate's exposure to the school environment to 500 field hours.

# Involvement of Stakeholders

According to CAEP standards, there is a need to build a partnership by involving teachers, students, trainers, supervisors, decision-makers, and the community as critical requirements for effective teacher education programs. For the competencies to be implemented well, stakeholders must actively participate. Furthermore, including them and taking into account their recommendations, demands, complaints, and challenges may improve the quality of the Omani curriculum and, as a result, educational

outcomes. However, recent research literature revealed that the active participation of teachers, students, parents, and other stakeholders in providing feedback regarding different aspects of some teacher education programs is limited or non-existent (Al-Khatri, 2019).

### Attractiveness of the Teaching Profession

Some students, especially males, hesitate to choose teaching as their career compared to other professions in terms of salaries and incentives (Amzat et al., 2021). A recent study by Al'Abri et al. (2021) found that a number of factors lead to the reluctance of male students in grades 11 and 12 to perceive teaching as a future career. These factors included a perception of "the difficulty of the career, its lack of financial incentives, and its low social status compared to other careers" (p. 467). This calls for serious image restoration efforts in the country to make it an attractive option, like the British "Get into teaching" campaign to inspire you generations to become teachers (UK Department of Education, 2022).

# **Conclusions and Future Aspirations for Teacher Education in Oman**

During the last four decades, teacher education in Oman has transformed to respond to the country's demands for teachers, national educational priorities, and international standards. The current program designs of the TE programs in most HEIs align with their counterparts regionally and internationally. A few best practices and initiatives by some Omani TE programs are discussed in this chapter including monitoring intakes' quality, aligning with international specialized standards, transforming field training, external reviewing of programs by internal experts, expanding candidates' assessments, and obtaining international recognition and accreditation.

Regardless, some other TE programs still have a long way to go in order to ensure the quality of their candidates and bring up their practices to international levels. With the lack of specialized national standards that govern teacher education in Oman, this concern about the quality of some programs will have to continue uncertainly. Furthermore, the high immediate demand for a large number of Omani teachers (Ministry of Education, 2021a, 2021b; Neisler et al., 2016) could lead to focusing on quantity over quality of recruited teachers (Al-Balushi, 2017).

As it is in many countries of the world, the development of teacher education in Oman is directly linked to the changing nature and demands of education in schools, which is largely determined by governmental authorities more so than by the advancement of knowledge in the field. Thus, due to the top-down method used regularly in the Omani educational context, it appears that the conflict between decision-makers and
practitioners is enduring, and the distance between theory and practice is expanding (Al-Khatri, 2019). This tension is well addressed by Bernstein's (2000) concepts of "official recontextualization field," which represents official government power and control, and the concept of "pedagogical reconceptualization field," which represents the teacher education institutions. As Tatto (2021) argues, this tension limits teacher education institutions' autonomy and independence to organize the profession away from the central government authorities.

It is thus clear from the Omani teacher education experience that the way programs are organized, be it by public or private institutions, do not go far from what the educational authority dictates. In fact, what is mandated by the authorities becomes the requirement for teacher education programs. With newer models and initiatives of teacher education such as specific teacher education tracks for STEM or STEAM, un-traditional tracks for teacher candidates such as "Teach for America" or more innovative programs focusing on research and technology. Although no such efforts are officially visible within the Omani higher education institutions, SQU is currently working on designing a STEM postgraduate program for teachers and practitioners in science, mathematics, and technology education. Similar pioneering initiatives will need to be addressed at a national level to produce effective quality teachers capable of improving student learning outcomes in international tests and effectively responding to unforeseen future events like the challenges teachers faced during the COVID-19 pandemic.

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# **Chapter 7 Educational Journey of Teachers in the Context of Kuwaiti Public Schools**



Amal Alsaleh, Maali Alabdulhadi, and Noha Alrwaished

**Abstract** This chapter provides insights on teacher education journey in Kuwait, starting from choosing teaching as a profession, followed by opportunities and contextual factors that shape teachers' learning as in-service teachers. This chapter also describes in-service teacher education in Kuwaiti public schools, including professional development programs, professional learning communities in school, teaching standards and regulations, and challenges for teacher education. The chapter concludes with recommendations and modifications of the training programs in the future.

**Keywords** Teacher education  $\cdot$  In-service training  $\cdot$  Kuwait  $\cdot$  Public schools  $\cdot$  Regulations

# **Kuwaiti Context of Education**

Kuwait, located in the Middle East and considered a relatively small country situated between Saudi Arabia and Iraq, is a part of the Gulf Cooperation Council (GCC) states. It shares its language, in addition to the religion, cultural aspects, and education, with its GCC counterparts. Kuwait's 2035 vision of future considers education as a fundamental right of all citizens (Kuwait Constitution, 1962). Its primary objective is to develop and enhance the individuals' private life in addition to their public life when it comes to their day-to-day activities to become considerate and selfless members of their society (United Nations Educational Scientific and Cultural Organization & International Burial of Education, 2011). This, in turn, helps to realize the main purpose of education in Kuwait, which is to train students to tackle the challenges in the real world, develop the necessary and technological skills, and provide citizens with the awareness and expertise to cope with any changes whether at the local, regional, or international levels. This ultimately helps fulfill the primary objective of maintaining strong cultural uniqueness and preserving it (United Nations

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Educational Scientific & Cultural Organization & International Burial of Education, 2011).

During its infancy, the schools in the Kuwaiti educational system were considered informal and primitive compared to the rest of the world. The first formal schools, which were two boys-only schools, were established in 1911 and 1922. This period was followed by an era of educational enlightenment, which led to the establishment of not only the first school for girls in 1936 but also the first school for special needs in 1955 and the first school for fighting illiteracy in 1975 (Ministry of Education [MoE] website; Alrishidi, 2012).

This educational enlightenment could be attributed to the high demand from the business class and instructors at the time with the objective to cultivate the supply needed for the rising demand in the Arab world with regard to the increase in economic growth in the region. This evolution of the educational system was accompanied by the development and implementation of the hierarchy of education levels along with the necessity to teach an advanced curriculum in the sciences and literature disciplines (Alabdulghafoor, 1983; Al-Rashoud, 2017; Alrishidi, 2012).

The development and evolution of the educational system in Kuwait have created the need to critically analyze certain tangible educational indicators to learn from previous iterations of the educational system and predict more comprehensive methods for reacting to changes occurring internally and externally in cooperation with the World Bank, Kuwait's MoE, and National Center for Education Development (Alkhoja et al., 2014). Educational indicators, in this context, refer to the statistical data available with regard to student, teacher, and school populations, which MoE collects on an annual basis for development purposes.

In 2019, the student population in Kuwait is 505,739 students in 1137 schools with 90,752 teachers across both the public and private schools. While the public system has an enrollment count of 424,383, it is 81,356 for the private system. The majority of schools in Kuwait fall under the public system (976 or 86%), while the minority of them fall under the private system (161 or 14%). The total number of schools in the category kindergarten, elementary school, middle school, and high school, is, respectively, 202, 281, 223, and 153 for the public sector and 21, 44, 48, and 46 for private sector schools (Ministry of Education, 2019). According to the World Bank data (2020), the student-to-teacher ratio is 9:1, which passes the educational indicator of "quality of education" (Chahine, 2015). Additionally, teachers in Kuwait receive a higher salary in comparison with other countries and have a higher social status (Alkandri & AlSanie, 2019).

## Prospective Teachers' training in Kuwait

Teachers act as one of the foremost pillars of sustainable development, and in Kuwait, it is of crucial importance to train new teachers to function in line with the goals of Kuwait Vision 2035 (Al-Anzi, 2019; MoE development & training sector, 2021).

Therefore, the educational sector is motivated to work hard to enrich and develop the teaching profession in general and students in particular (Al-Qallaf, 2009).

In the State of Kuwait, there are two main providers of teacher training programs in the public sector: the College of Education at Kuwait University (KU) and the College of Basic Education at the Public Authority for Applied Education and Training (PAAET). In these educational institutions, teacher candidates are enrolled in a four-year undergraduate degree program in education with one semester enrolled in teaching practicum (MoE, 2014). These two institutions, described as follows, work toward their goals by providing performance-based educational programs, undertaking educational research, serving the community, and collaborating with local and international educational institutions and bodies (Al-Anzi, 2019; Al-Qallaf, 2009).

1. College of Education at KU:

The College of Education's mission is to train and nurture qualified, considerate, and contemplative teachers and educational professionals possessing modern theoretical and applied knowledge, skills for using educational technology, and professional ethics, as well as the desire to continue learning and building their professional expertise and improve the lives of others through teaching and learning (College Directory, 2020–2021). The idea of establishing College of Education, KU, materialized in 1980, and classes started in the academic year 1981–1982. Today, the college includes the following departments: Educational Foundation, Educational Psychology, Curriculum and Instruction, and Educational Planning and Administration (College Directory, 2020–2021).

The College of Education constantly strives to achieve the morals of Kuwaiti society and educational goals by providing educational programs based on merit, in addition to conducting educational research and community service through collaboration with other educational institutions and local and international bodies (Guide of the University of Kuwait, 2020).

The majors offered at the College of Education are as follows:

- Kindergarten program: kindergarten specialty.
- Elementary program: mathematics, science, Arabic language, Islamic studies, English language, and social studies.
- Intermediate and secondary program: mathematics, science (biology, chemistry, physics, geology), Islamic studies, Arabic language, English language, sociology (history, geography, philosophy), and psychology—social sciences (College Directory, 2020–2021; College of Education, 2018).

Admission to KU's College of Education requires holding personal interviews with student candidates, which makes it possible to ensure that applicants have the appropriate cognitive, skill, and emotional characteristics of the accepted students for their success in the training process as future teachers (Deanship of Admission & Registration, 2021).

In their final semester, senior students attend public schools to complete internships as full-time preservice teachers based on their majors. They enhance their teaching abilities and professional teaching practice by using theoretical frameworks as well as educational concepts and applications (Teaching Practicum Center, 2014).

A number of scholars in Kuwait have conducted studies on preservice teachers' training in KU's College of Education. Ebrahim (2012) described preservice teacher's high self-efficacy related to teaching science during their training. Additionally, Altammar and Aljassar (2021) showed that preservice teachers expressed a high level of readiness and increased levels of work preparation among prospective teachers who used microteaching, particularly in three critical domains: lesson planning, lesson implementation, and lesson evaluation. Al-Sharef et al. (2016) showed that the majority of Kuwait preservice teachers had a positive attitude toward using information and communications technology (ICT) in education and 50% plan to use it in their future teaching. Additionally, Alrwaished et al. (2017) confirmed preservice teachers are confident in integrating technology and demonstrated competency in their instructional and pedagogical methods, which may represent the appropriate use of technology in the College of Education. Furthermore, Al Ardi et al. (2020) reported that the degree of possession of professional standards was medium in general from preservice teachers' perspectives. They ranked their procession to ethics of justice, responsibility, and trust higher than ethics of citizenship, care, and respect.

#### 2. College of Basic Education affiliated with PAAET

The idea behind Public Authority for Applied Education and Training (PAAET) materialized after Kuwait's first teachers' institute opened in 1972–1973, with two divisions for arts and sciences. Those who held a secondary certificate or its equivalent were admitted to a two-year program, which operated according to the university year system. Back then, graduates were awarded diplomas from the Institute of Education and were deemed qualified to teach at the primary level. In the academic year 1976–1977, as the department was developing along with the college, the system of courses (credit hours) was adopted, and the number of specializations was increased. (Alsager, 2015).

In the academic year 1986–1987, the program was expanded to four years, and the name of the college was changed to the College of Basic Education, PAAET. After qualifying scientifically, professionally, and educationally, its graduates are awarded a bachelor's degree in their specialization and join the labor market as distinguished kindergarten, elementary, or middle-school teachers. The College of Basic Education offers a major in kindergarten and the following specializations for elementary School: Arabic language, Islamic studies, English, social studies, mathematics, and science. In addition, it offers four applied specialization majors: physical education, art education, musical education, and interior design (Al-Qallaf, 2009).

PAAET's College of Basic Education also conducts tests to assess the abilities of applicants aspiring to join qualitative specializations; for example, there are aptitude tests for students applying for specializations in art education, physical education and sports, and musical education, as well as aptitude tests for majors in interior design and English language (Al-Qallaf, 2009). The teacher training consists of eight semesters over four years; the eighth semester is devoted to the practical

education program, which the students undertake after completing the basic course requirements (Al-Qallaf, 2009).

Kuwaiti scholars have conducted numerous studies to examine preservice teachers' training in PAAET's College of Basic Education. For instance, Al-Sagabi (2019) examined positive attitudes of the preservice teacher toward their supervisors following up their performance in internship course and the support they received to solve their academic problems and prepare them for the real practice in the schools. These teachers received support from senior teachers in the department, and the latter shared their knowledge and experiences with the former. However, the preservice teachers faced challenges regarding the high administrative workload. Alkandri and Alsanei (2019) studied positive attitude of preservice teachers toward teaching in PAAET's College of Basic Education. Aldehiem (2018) reported that practice and experience increased preservice teacher's understanding of their profession and facilitated positive communication with teachers and administration. Abbas and Alsahou's (2019) study showed a medium level of achieving quality standards for special education programs from preservice teachers' views. However, another study showed challenges that preservice teachers face with school administration and supervisors (Alsharhan, 2020).

3. Private Universities in Kuwait:

Starting from 2005, only one private university, namely Gulf University for Science and Technology (GUST), provided training to preservice teachers. It provided only an English Certification in Secondary Education (ECSE) major. The ECSE faculty collaborates with all public and private schools to help students complete internships and student teaching assignments. The objectives of ECSE are to (i) continue to advance the learning process in the field of education, (ii) educate English secondary education teachers to meet all requirements and objectives specified for modern teacher education preparation programs, and (iii) improve education quality, particularly in Kuwait (GUST website).

### **In-service Teacher Education**

Subsequent to their graduation, teachers are assigned to take up in-service teacher profession in either public or private schools. Because students in public schools shape (57% of total students) in Kuwait, most graduates teachers join public schools (78% from teachers assigned to public schools) to cover the schools' needs (Ministry of Education, 2019). To enhance teachers' professional development, the context of daily schoolwork must be considered. Teachers' professional development is essential to keep them updated with recent teaching methods and technology (Al-Ammar, 2016). In fact, Kuwait's national curriculum has been reformed from an objective-based to a competency-based curriculum, which necessitates teacher development to meet new curriculum standards (Al-Kendri, 2020; Al-Shatti, 2019). To maintain

quality teaching, several sources contribute by providing guidance and experience to enhance teacher education.

First, heads of the department (HoDs) contribute to teachers professional growth. HoDs are school supervisors who communicate with teachers on a daily basis. After serving in their subject departments for a minimum of five years, HoDs may be nominees for positions as assistant principals or district supervisors (Alsaleh, 2020b; National Institution of Education, 2013). Alsaleh's (2020b) study showed a high level of teachers' learning based on school-based professional development, where teachers showed that they gained subject-related knowledge and instructional skills through disclosure to a wide range of teaching experiences and new pedagogical skills. In Alsaleh's (2020b) study, the role of HoD and teachers' cooperation was a contributor to teacher's school-based learning.

Second, peer learning is considered an informal source to contribute to teacher professional growth (Alsaleh et al., 2017). In Kuwait, public schools are structured according to departments with teachers being led by the head of the department (HoD) sharing the same major. Thus, teachers' departments communities also shape another source that contributed their professional learning. In Alsaleh (2014, 2020a, 2020b) studies, public school teachers showed a cooperative attitude with their colleagues when sharing the same multipurpose room where most department meetings occurred. Al Shammari et al. (2020) study also demonstrated positive attitude of teachers toward school learning communities, peer learning, and cooperation.

Moreover, school principals also contribute to teachers' school-based learning. Moreover, school principals also contribute to teachers' school-based learning. Alsaleh (2019) showed that instructional leadership practices were various in Kuwaiti public schools, while principals engaged teachers with in-school professional development programs. Additionally, school principals also support preservice teachers' education by providing in-school training courses. Studies in Kuwait have highlighted such an important role for school principals in facilitating teachers' learning (Alazmi & Hammad, 2021; Alsaleh, 2019, 2020a; Alsharija & Watters, 2020).

Additionally, district supervision is responsible for curriculum implementation through regular visits to school, meeting with HoDs and teachers to discuss curriculum-related matters, evaluating curriculum tools, and their timeline distribution, supervising students' performance, and sending reports to MoE supervisors. District supervision organizes training workshops and professional development programs related to curriculum besides mutual teachers' classroom visits to transform knowledge and experience (Alsaleh, 2019; MoE, 2019). The role of district supervisors has evolved from detection and autocratic roles to more democratic with instructional and coaching nature (Alajmi, 2016). Recent studies, such as Alazmi's (2019) study, investigated the effectiveness of district supervision programs from teachers' perspectives who showed a high positive rating for these programs, especially in building relations aspect, where development and creativity took less rating. Additionally, the study by Alhajeri et al. (2018) showed high commitment of supervisors to ethical standards of classroom visits. Development and professional progress of the department in MoE is coordinated with district supervision in managing professional development workshops (MoE development & training sector, 2021). To encourage teachers for a more professional growth, MoE's regulation provided half-paid vocation to teachers who are interested in completing their graduate studies. Yearly scholarships—required in majors—are another chance for teachers to acquire more specific knowledge.

In Kuwait, informal professional development is provided by various private sector institutions besides community organizations. One of the main providers for teachers' professional programs is the Kuwait teachers' society (KTS). It is a nonprofit organization established on October 2, 1962, and is concerned about teachers' rights and the development of the required competencies for teaching professions by providing training. It provides other social services in partnership with other social organizations and issues an electronic teacher journal (KTS, 2021; KTS website, 2021).

### **Teaching Standards and Regulations**

Teaching standards are a public proclamation of what constitutes effective teaching. They define the work of instructors and highlight the features of high-quality, effective teaching in the twenty-first-century schools that are anticipated to increase students' educational outcomes. The standards define the knowledge, practice, and professional activity required by teachers throughout their careers (Darling-Hammond, 2008). Developing professional teaching standards to govern professional learning, practice, and participation serves to improve not only teacher quality but also the public standing of the profession; teaching standards outline the components of high-quality instruction (Mockler, 2020).

Although Male And Al-Bazzaz (2015) stated that Kuwait has not agreed upon requirements for appraising teacher's performance, considerable research has been conducted for developing contextual standards for teachers. Recently, MoE developed teachers' performance principles that were built as per community partnership. This framework aims to create creative human capital that possesses the skills of the twenty-first century, meets the future needs of the labor market, and achieves the requirements of sustainable development (Alkhoja et al., 2014; MoE, 2021), as shown in Table 7.1.

Besides performance standards, MoE Kuwait has an ethical code for teachers. Those who work in the teaching profession must be distinguished by dignity, tranquility, and a decent appearance. They must be distinguished by trustworthiness, credibility, wisdom, emotional stability, justice, honesty, confidentiality, and accountability for their actions (MoE website).

Studies have shown that teachers, however, face challenges in committing to these standards, which are followed during teachers' selections, professional development, and school environment in general (Al-Ammar, 2016; Al-Sheref et al., 2016a; Al-Kandari et al., 2004).

Safety	Maintaining students' safety	Imagination	Let the learner be filled with high perceptions of his/her ability
Care	Caring for the student, taking care of his/her inclinations and whims	Training	Providing adequate training to learners and correcting their misconduct
Support	Support is provided to the students on their education and is improved with feedback	Practice	Focusing on various methods of practice
Guidance	Instructions are provided to teach the correct methods and provide useful tips	Organizing	Concerned with the learners' self-organization for both academic and personal life
Appreciation	Letting learners know they are important, respected, and valuable	Enrichment	Empowering the learners to generate ideas, alternatives, and solutions
Confidence	Building confidence in the learners	Proficiency	Utilizing what the learner has acquired in new positions
Compatibility	Support the learners' comprehensive growth and adaptation to the surrounding environment	High expectations	Showing high expectations for the level of learners before school
Communication	Using clear, understandable, and appropriate language	Setting rules	Applying purposeful classroom rules
Equality	Considering individual differences and achieving equal opportunities	Diversity	Using multiple learning sources
Participation	Allowing learners to participate in educational situations	Variety	Using various teaching strategies of education and active learning
Reinforcement	Enhancing the learners' responses and their opportunities for achievements	Attribution	Strengthening the learning content with approved supporting learning content
Freedom	Protecting the freedom of the individual within the limits of the freedom of others	Inclusion	Inclusion of new knowledge and experience with previous knowledge and experience
Loyalty	Consolidating the learner's belonging to his/her country, religion, and national behaviors	Integration	Linking subject qualifications and skills with different study subjects

 Table 7.1
 Performance standards to guide relation between teachers and learners in learning situations

(continued)

Safety	Maintaining students' safety	Imagination	Let the learner be filled with high perceptions of his/her ability
Motivation	Introducing attractive learning elements and stimulating the learners' motivation	Evaluation	Providing continuous, diversified, and objective assessment methods

Table 7.1 (continued)

### **Challenges for Teacher Education**

MoE's report (2015) asserted the need to improve teacher competencies. Studies and real-world instances have shown that Kuwait's teacher education context presented some challenges. First, Al-Ammar (2016) reported that teachers presented mostly lower GPAs than other colleges, although some majors require a high admission qualification. Thus, the study by Al-Kandari et al. (2004) showed that colleges of education must be more selective toward future teachers by assessing their attitude toward the profession during their interviews. In fact, College of Education graduates could not cover national market needs, which cover only 50.3% of Kuwaiti teachers. Thus, foreign teachers presented (49.66%) from the total workforce in both public and private schools (MoE, 2019). Therefore, more training is required to adapt to the MoE vision, curriculum, and teaching requirement. Additionally, teaching profession is not considered attractive for males (Al-Ammar, 2016).

Furthermore, teacher training programs face challenges that preservice teachers are exposed to through their preservice training. Studies have found several issues and impediments related to school administration, for example, high administrative workload (Alsaqabi, 2019; Alsaleh et al., 2017) besides other academic commitments and obligations related to university courses that overlap with internships courses (Alhadad, 2016) and teaching management issues (Alsharhan, 2020). Additionally, Alhadad's (2016) and Alsharhan's (2020) studies revealed that there was a gap between theoretical knowledge that teachers learn in high education institutions and teaching practices in schools. Also, Alsager (2015) clarified that the curriculum needs to be updated to avoid memorization and concentrate more on higher thinking skills and integrated technology.

For in-service teachers, some studies have recommended more quality of teacher's professional programs. Alajmi's (2021) study revealed that before the adoption of Kuwait's national competency-based curriculum (CBC), there was a lack of professional development and training for in-service teachers. According to the findings, both instructors and instructional supervisors struggled to comprehend the Kuwait's national CBC in terms of concept and objectives. Other studies also confirmed this inadequacy of teachers' preparation; for example, Alqahtani (2018) indicated that teachers' perceptions of professional development programs in Kuwait are low because they did not get appropriate professional learning programs, resulting in a marginal change in teaching practices and inability of teachers to apply what they

learn by informal professional development in their classroom. Alsharija and Watters (2020) also confirmed inadequate training for school staff including principals and teachers. One reason behind the weakness in MoE professional programs is the budget for training (MoE, 2014) that is shown in other studies (Al-Ammar, 2016; Alsaleh, 2021a; Alsharija & Watters, 2020). Al-Ammar (2016) stated that there is weakness in teacher professional development and preservice teacher training.

Additionally, in Kuwait, the curriculum is highly centered toward rote memorization, which leaves little time for teaching critical thinking skills. According to teachers' perspectives, 45% of eighth graders are required to learn to memorize scientific rules, processes, and facts (World Bank Group, 2019). National Institution of Education (2013) and Ministry of Education's (2014) reports showed a shortage of skills to assess students for higher-order thinking and problem-solving, besides the lack of variation of test questions for low or gifted learners, which was also revealed in low results for Kuwaiti students in International Test in Mathematics and Science (TIMSS) (Mullis et al., 2020).

Limited autonomy is another challange that is faced by leaders and teachers in public schools, as they experience limited engagement in decision-making, which makes their professional needs unheard. Studies have shown that leaders and teachers must be empowered to build school learning capacity (Alsaleh, 2019, 2020b; Alsharija & Watters, 2020). Standard trainings and workshops provided by MoE were not sufficient in some studies (National Institution of Education, 2013), which might mean that teachers needs or voice must be taken into consideration (Al Shammari et al., 2020; Al-Ammar, 2016). School leaders must provide encouraging environment, time, and budget to facilitate teachers' cooperative learning (Al Shammari et al., 2020; Alsaleh, 2020a, 2020b, 2021a, 2021b). Disconnection and gap between universities and MoE schools are another obstacle that separates theory from practice (Al-Sheref et al., 2016b; Al-Ammar, 2016; Al-Kandari et al., 2004).

### **Teacher Education During the COVID-19 Pandemic**

The COVID-19 pandemic forced a different reality related to teacher education in Kuwait. After decades of traditional face-to-face learning, the MoE mandated online teaching after seven months of school suspension due to the pandemic (Al-Mutairy, 2021; Alsaleh, 2020a, 2020b). Although online teaching was a suitable solution for learning suspension (Al-Hunaiyyan et al., 2021), this change was not easy as it required intensive learning for teachers and students reliant on traditional teaching, lack of digital infostructures in schools, besides digital resources (Al-Hunaiyyan et al., 2021; Alsaleh, 2020a, 2021a). The MOE started planning for the professional development of teachers on September 3, 2020, using the Microsoft Teams platform and activated the accounts of leaders, instructors, and students. Many teachers and leaders (i.e., about 68.000) needed urgent training (MoE, 2018).

MoE's leaders were fully responsible for providing training for all school directors, instructors, and students to the district supervisors. About 11,000 teachers were taught online by the district computer science supervisors (Aljarida, 2020). However, because over 68,000 instructors and 390,000 pupils needed to be trained, school administrators made determined attempts to deliver school-based online training sessions. The teacher communities have therefore battled with their continuous capacity building during the epidemic (Alsaleh, 2021a, 2021b). Some studies have reported short time in training (Alsaleh, 2021a; Chaaban et al., 2021).

Studies from Kuwait shed light on this difficult time of crisis. Alsaleh (2021a) confirmed that some schools built professional learning communities through shared values and vision, shared responsibility, professional reflective research, individual and group learning, collaboration, and enhancing relationships that fostered transition to online learning significantly. Additionally, HoDs provided training, supervision, and support for teachers. New experiences and knowledge were gained through COVID-19 crises. Other studies also highlighted such experiences. One study (Chaaban et al., 2021) showed that teachers in Kuwait adapted to new technologies, developed digital skills, and involved with individual and collaborative learning opportunities. During COVID-19 time, school leadership support from all levels was needed and provided (Alsaleh, 2020a, 2021a, 2021b). Alnasrallah (2021) showed teachers' positive perception about support and professional training provided by their supervisors regarding digital teaching methods and digital skills.

However, more support is required for learning resources, activities, and program instructions, while online teaching lacks students' differences and communication.

Private schools in Kuwait were more ready for online teaching and faced the pandemic with more flexibility and resilience. Most private schools started online teaching before their public counterparts, which waited for political decisions from the MoE. Thus, teachers in private schools showed readiness during online teaching throughout COVID-19 pandemic. Al-Mutairy (2021) reported differences in using learning resources and applying distance requirements in private schools in comparison with public schools. On the one hand, Al-Rasheedi (2021) reported the use of technological resources, digital communication, and learning resources in private schools in Kuwait were behind in response to COVID-19 as MoE prohibited continuality of education until the beginning of the academic year.

Studies also showed invalidity for online assessment because online teaching lacks differentiation between students' needs and skills (Al-Mutairy, 2021; Al-Rasheedi, 2021). Additionally, lack of direct interaction with the student, absence of practical online training, and limited time for virtual class result in large learning loss that must be marginalized after pandemic (Alsaleh, 2021b). This huge learning challenge that occurred in the pandemic revealed teachers' agency that met the requirement of online teaching. Many studies in Kuwait discussed that teachers lacked basic digital skills prior to pandemic (Al-Hunaiyyan et al., 2021; Safar & Agha, 2020), while Safar and Agha (2021) identified administrative obstacles (moral and ethical awareness, support, and education laws), academic obstacles (parents awareness of online teaching, teaching platforms, staff development), and logistic obstacles (hardwires, financial support, networks, technical resources). Regardless, teachers gained new learning skills trying to cope with the crisis of learning suppension and

minimizing its impact. Both Alsaleh's (2021a) study on public schools and the study by Chaaban et al. (2021) on private schools revealed teachers' peer collaboration in lesson planning, sharing tools and knowledge, what made COVID-19 pandemic a chance for gaining new knowledge and change that must correspond to a systematic and sustainable change after the pandemic.

# Framework to Improve Teacher Education in Kuwait According to Twenty-First-Century Teaching Skills

According to Schleicher (2012), teachers' twenty-first-century skills were conceptualized and categorized by the Assessment and Teaching of Twenty-First-Century Skills project into four broad groups:

- Ways of thinking: creativity, critical thinking, problem-solving, decision-making, and learning
- Ways of working: communication and collaboration
- Tools for working: ICT and information literacy
- Skills for surviving in the world: citizenship, life and career, and personal and social responsibility.

Scholars worldwide are concentrating on developing such skills in pre- and in-service teachers. For example, Astuti et al. (2019) highlighted the need and practices for four skills, namely critical thinking and problem-solving, creativity and innovation, communication, and collaboration.

In Kuwait's context, the MoE framework considers developing highly qualified teachers as one important pillar of human capital that possesses the skills of the twenty-first century (MoE, 2021). However, this goal could not be achieved without reconceptualizing preservice teacher training besides in-service teachers' development programs as two combined formal sources for teacher education, which resulted in highly qualified teachers' outcomes in general. What teachers face is knowledge and practice gaps due to the separation in their professional journey starting from higher education institutions and ending up as teachers in public or private schools. Therefore, many studies (Alsaqabi, 2019; Alsaleh et al., 2017; Alrwaished et al., 2017; MoE and World Bank, 2015) recommended closing such a gap by establishing an active partnership between all stakeholders that targeted teachers' education in Kuwait.

Additionally, the cooperation and coordination between teachers' training institutions, MoE, and informal community organizations, such as the Teachers Union, are fundamental in shaping a community of learners and academics that contribute to teachers' education journey. The informal organization can also support MoE's efforts to meet national teacher standards for both teachers who graduate from national teacher preparation institutions or foreign teachers who come from other Arab countries. Informal teachers' communities can create community service opportunities for senior teachers to act as mentors for new teachers, consultants in MoE, or supervisors for preservice teachers. Pools for expertise, knowledge, teaching resources, and research findings can be shared to increase teacher learning.

For preservice teachers, the quality of teaching starts from the admission requirements for prospective teachers. MoE's (2014, 2015) report clarified that a unified accredited committee is required in the selection of qualified teachers, which cannot be achieved without the coordination between all institutions that target teachers' education. Reconsidering admission requirements and competency is essential for prospective teachers (Alkandri & AlSanie, 2019). Moreover, preparation institutions must set standards for preparing future teachers to be creative, higher thinkers, problem solvers, and researchers. The shortage of twenty-first-century teachers' skills standards is one issue that warrants more attention. Memorization and standardization policy affected how teachers teach and how students learn in Kuwait (National Institution of Education, 2013; World Bank Group, 2019). Teachers must impart knowledge by being open to improving teaching by using research, reflection on their teaching work, and renewing their teaching methods.

From the MoE side, district supervision mandates instructional guidelines for lesson plans and performance. This restriction for teacher autonomy might negatively affect their identity as planners, creative, researchers, and leaders. MoE leaders must, therefore, move gradually to school autonomy and empower leaders and teachers. Administrative workload and dense curriculum besides heavy work schedule for teachers occupy teachers' time and energy away from self-learning. Thus, school leaders should create an environment that allows teachers to enhance their skills and encourage innovation. This includes providing a variety of instructional resources and cutting-edge technologies. It is also important to strengthen the teachers' feeling of professional connection and morale.

Policy and leaders also have a responsibility in teacher education. Overall reconsideration of promotion standards, occupation of leadership positions, must be linked to teachers' education and qualification. Engaged teachers in professional learning and developing others must be rewarded and encouraged. They should be under the obligation of an organized national institution for applying teaching standards. As mentioned by Danielson and McGreal (2000), standards provide a common language and terminology for discussion among teachers, teacher educators, teacher organizations, professional groups, and the public. Teaching standards also assist instructors by setting professional learning objectives, providing a framework for evaluating the success of their learning, and encouraging self-reflection and selfassessment. Teachers can utilize the standards to acknowledge their presence and increase abilities, professional goals, and success. Figure 7.1 illustrates the authors' vision about improving teacher education in the Kuwait context based on Schleicher (2012) teachers' twenty-first-century skills.



Fig. 7.1 Proposal to improve teacher education in the Kuwait context based on Schleicher (2012) teachers' twenty-first-century skills

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# **Chapter 8 Teacher Education in Turkey from Past to Present**



Hasret Köklü Yaylaci and Feride Özyildirim Gümüş

**Abstract** The teacher education policies developed and implemented by a country are of key importance for its education system. Effective education policies, which can be followed over years for social, political, economic, and environmental reasons, may result in sustainable development that benefits current and next generation's well-being. Therefore, all countries should construct their education policies and philosophies in terms of their needs, cultures, economic conditions, and the requirements of their geographical structure. These needs and requirements may change over time, and accordingly, the adopted education philosophy and teacher education systems can be revised. In order to talk about teacher education in Turkey, first, the history of teacher education, which started with the establishment of the Republic of Turkey in 1923, will be discussed. Subsequently, the curricula used throughout the history of teacher education and the assessment methods adopted within the framework of these curricula will be examined. Then, the preferred teaching and learning approaches that shaped Turkish education curricula will be explained. Lastly, the professional development of teachers and pedagogical innovations and practices that enable effective teaching and engage students' in learning will be elaborated.

Keywords Teacher education  $\cdot$  Turkey  $\cdot$  Curriculum  $\cdot$  Approaches  $\cdot$  Pedagogical innovations

# History of Teacher Education in Turkey

Although educating and teaching is one of the oldest occupations in human history, the history of considering teaching as a profession is not very old. Looking at the history of the Republic of Turkey, it is seen that the first moves to train teachers were made in the late 1920s. In these years, there were attempts to train primary school teachers to be assigned primarily in rural areas. These initiatives were originally embodied with the opening of the *village teacher's school*. The purpose of these

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schools was to help students adapt to village life (Gündüz, 2021). These initiatives gave way to the establishment of *village institutes* in the 1940s. The village institutes aimed to train and prepare teachers for conditions in the villages where literacy rates were low, enabled these teachers to teach in regions with similar characteristics and encourage them to be literate (Akyüz, 2007). During the village institute implementation process that lasted until 1948, 21 village institutes were established throughout the country and hundreds of teachers were trained in them. The institutes had five years teaching process which began after students finished primary school and their curriculum included 114 weeks of "culture" courses, 58 weeks of "agriculture," and 58 weeks of "technical" courses (Akyüz, 2007). After the village institutes were completely closed in 1954, teacher training institutions were united under the name of primary teacher school (Akdemir, 2013). It has been observed that there were courses in 22 different fields from literature to mathematics, gymnastics to handicraft, and foreign language to philosophy in the curriculum of primary teachers' schools, and it has been emphasized that most of these courses were theoretical (Güneş, 2016).

In addition to teacher training for primary school education, teacher training for secondary school education started in the second half of the 1920s. In this context, *teacher schools* were opened in a few big cities of Turkey, and their name changed to *education institute* in the following years (Akdemir, 2013). The education institutes, which started to serve in 1946, were replaced by *higher teacher schools* as of the 1978–1979 academic year, their programs were increased from three to four years, and began training high school teachers (Akyüz, 2007).

Teaching as a profession requires special expertise and skills with economic, cultural, social, scientific, and technological dimensions (Gündüz, 2021). However, in order to meet the increasing need for teachers from time to time, various teacher training practices have been employed, regardless of whether the above-mentioned skills have been acquired or not. For example, in the 1960s and 70s, practices aiming to train teachers in a short time, such as reserve officer teachers, teacher training with an accelerated program, and teacher training by letter, were implemented (Akdemir, 2013). Akyüz (2007) briefly explained these practices as follows: In the practice of reserve officer teachers, high school graduates who will do their military service have taken a teaching course before they do their military service in villages as teachers. In the practice of teacher training with the accelerated program, those who could not complete their education in two-year education institutes for various reasons were given the right to teach by providing accelerated training for a few months. Finally, in the practice of teacher training by letter, the education process was completed by giving lessons for a few hours in the summer months (Akyüz, 2007).

### Moving up to University Level in Teacher Education

Akyüz (2007) stated that with a law enacted in the early 1970s, teacher education for all branches was increased to the university level and, since 1973, after the completion

of high school education, teacher education programs required *education institutes* that provide a two-year associate degree. In this way, teacher education was increased to the university level for the first time. Teachers continued to be trained in about 50 educational institutes over two years, but the number of educational institutes, which was reduced to nearly 20 and with a law enacted in 1981, was included in the *education faculties* as of 1982 (Dursunoğlu, 2003)

In Turkey, teachers were trained in foundations under the Ministry of National Education - Milli Eğitim Bakanlığı - (MEB) until 1982 (Azar, 2011). With the establishment of the Council of Higher Education - Yüksek Öğretim Kurumu- (YÖK), foundations providing teacher education, namely education faculties, have been reorganized to offer at least four years of undergraduate education since 1982. By increasing teacher education to an undergraduate program level, the preparation of education programs and the execution and supervision of the teaching process began to be carried out by YÖK and continue in this way.

After teachers were required to hold a university degree, different ways have been used to train teachers from the end of the 1990s to the present, as in the 1960s and 70s. The most well-known way to become a teacher is to go through a pedagogical formation certificate program. In this way, people who graduate from different faculties are entitled to become a teacher with a short-term certificate program that provides professional teaching knowledge. Another way is to train teachers through non-thesis master's programs, which aims to train teachers for the high school level. In this program, first three and a half years involve field area courses for relevant programs—similar to the faculties of science and literature—and the final year and a half focuses on teaching profession courses (Kartal, 2011). In this context, graduates of various faculties, especially those who graduated from the faculties of science and literature, are granted the right to become a teacher if they complete a master's degree without a thesis. In reality, most teachers pursue an education degree and receive a teaching certificate.

## **Curriculum in Teacher Training Process**

Teachers provide to the behaviors of individuals and also guide societies in increasing the quality of life (Şahin, 2008); therefore, societies need well-trained teachers. In other words, teachers shape individuals' minds, promote positive behavior, and increase the quality of life in societies. To train well-trained teachers, it is necessary to develop and use well-planned teaching programs and appropriate assessment and evaluation techniques.

Teacher training curriculum should enable aspiring teachers to gain the expected competencies. In Turkey; there are three professional competencies that a teacher should have: professional knowledge, professional skills, and attitudes and values (MEB, 2017). Professional knowledge includes field area knowledge, field area education knowledge, and legislative knowledge; professional skills include planning education, creating learning environments, managing the learning and teaching

process, and measurement and evaluation skills; and the definition of attitudes and values includes processes such as national, spiritual and universal values, approach to students, communication and cooperation, and personal and professional development (MEB, 2017).

According to Kalkan (2021), when the models adopted in teacher training programs are examined, two different models, sequential and concurrent, are used in Turkey. In the concurrent model, vocational courses are offered simultaneously with academic courses (Kalkan, 2021). Today, education programs in education faculties that train teachers for pre-school, primary, and secondary school levels in Turkey operate according to the concurrent model. In this context, prospective teachers studying at education faculties take field area education courses and general culture courses under the name of academic courses and professional teaching knowledge courses under the name of vocational courses during their undergraduate education. In the sequential model, those who have completed their higher education in a field other than the faculty of education can participate in teacher training programs and become a teacher (Kalkan, 2021). In this context, it can be said that both the concurrent model and the sequential model were adopted in the process of training teacher candidates who want to teach at the high school level in Turkey. Because, just like undergraduate programs that train pre-school, primary, and secondary school teachers, there are undergraduate programs for teacher training for the high school level in education faculties. These programs can be considered within the scope of the concurrent model. On the other hand, graduates of some faculty departments other than the education faculty are entitled to practice the teaching profession by taking various teaching profession knowledge courses under the pedagogical formation certificate program which applies the sequential model.

Prior to teachers requiring university level education (until the 1970s), field area knowledge courses were emphasized more than teaching profession knowledge courses (Güneş, 2016). However, when university level education became the requirement for teacher training, revisions were made in the curriculum from time to time in line with the needs. For example, the structure and program of teacher education were revised in the late 1990s, and other revisions followed in 2006 and 2018.

At the end of the 1990s, the education curriculum began combining practice and theory and emphasizing teacher competencies. In addition, quality of content was prioritized in the teacher training process (Azar, 2011). With the aim of strengthening the faculty-school cooperation, the students studying at the faculties of education began in-school teacher training (Işık et al., 2010). Additionally, within the scope of this revision, the Turkish Teaching Department was given importance, the programs that train teachers for high school level were shaped as a non-thesis higher program and extended to five years, and special education method courses in the programs were emphasized (Akyüz, 2007).

Then, in 2006, the curriculum was revised to emphasize general culture courses, and faculties were given the opportunity to determine new courses at the rate of approximately 30% of the programs with a flexible approach (Akyüz, 2007).

However, the existing practice hours for some courses were reduced, and the theoretical course hours were increased. Similarly, in the last revision made in 2018, the theoretical course hours were quite high, and the practical hours were limited to two courses, both in the last two semesters of the programs. In other words, prospective teachers only see a real classroom in their last year of graduation. This situation may cause prospective teachers to encounter difficulties arising from inexperience when they start their profession handling student behavior problems/disruptive behavior. Even though newly graduated teachers are well-equipped in terms of field area knowledge, they may experience a period of confusion due to insufficient practice hours offered in their undergraduate education.

Today, teacher training programs continue with the revisions made in 2018. YÖK (2018), which oversees the teacher training process, has diversified the courses in teacher training programs as field area courses, teaching profession knowledge courses, and general culture courses. This diversification has been prepared in accordance with the above-mentioned teacher competencies. In this context, field area courses constitute 45–50% of the curriculum, teaching profession courses constitute 30–35% of the curriculum, and general culture courses constitute approximately 15% of the curriculum.

## Assessment and Evaluation Methods in the Teacher Training Process

In the teacher training process, various assessment and evaluation approaches are applied in the needed teaching programs. It is possible to divide these approaches into the assessment and evaluation methods used in the theoretical courses and the assessment and evaluation methods used in the practical courses. In addition to the measurement and evaluation methods based on traditional methods such as essays, open-ended, oral, and multiple-choice tests, alternative methods such as portfolios, projects, interviews, and observations are also used. On the other hand, it can be said that more performance-based methods, observations, projects, and interviews are used in the assessment and evaluation processes of the field courses, such as teaching practice and community service, which are considered practical courses.

In this process, which is also called pre-service training, after the prospective teachers complete their undergraduate education, if they want to work in public schools, they first take a large-scale exam called KPSS (Public Personnel Selection Examination), which is held throughout the country. In this exam, there are multiple-choice questions that theoretically measure their knowledge acquired during the undergraduate education. The candidates will receive a score for their exam and a score from their MEB interview. According to these two scores, teacher candidates are appointed to the regions of the country that need teachers and start their teaching careers as candidate teachers (Ulubey, 2018).

On the other hand, among the candidates who have completed their undergraduate education and are authorized to teach, those who want to work in private schools do not have to take the above-mentioned large-scale exam and interview. These candidates make individual applications to the institutions they want to work in, and if the institutions wish, they can make their own exams and determine the teachers they will hire.

In Turkey, the term *teacher candidate* is used in two different senses. The first one is mostly used with *prospective teachers* for those who take part in the preservice period. In other words, the term prospective teachers are used for those who are studying, have completed the undergraduate program of an education faculty, or graduated from a faculty and obtained a pedagogical certificate that is required to become a teacher. These individuals are still in the pre-service period and have not worked as a teacher in any public or private schools. The second is the individuals who have completed their education in the relevant fields, have just started teaching in a public or private school as a teacher, but have not yet started the process of being a *regular teacher*. These individuals are in the in-service period.

As in other countries, there are mentoring practices for teacher candidates to adapt to the profession in Turkey. It is possible to see these mentoring practices, which are also used as a kind of measurement and evaluation method, in the pre-service and in-service periods. In the pre-service period, within the scope of teaching practice courses, prospective teachers who study in the last year of the related undergraduate program or graduated from a faculty, under the supervision of responsible faculty lecturers and guidance teachers in the practice schools, practice teaching in the real classroom environment. In this process, both the relevant instructors and the guidance teacher in the practice school are evaluated whether they have teaching qualifications or not. On the other hand, teacher candidates in their in-service period go through the "Directive on the Process of Training Candidate Teachers" program (established in 2016). This training process aims to minimize problems experienced by teacher candidates and help them adapt to the region, school, and national education system (Ulubey, 2018). In this process, the mentoring practice continues, and the newly appointed teacher completes the candidate teaching process with a mentor teacher from the school where they work.

Teachers who successfully complete the prospective teacher process continue their duties as regular teachers. Teachers who continue their duties are also evaluated in terms of their performance throughout their professional life. Evaluation of teachers who are in service in public school is defined as performance evaluation. According to the Ministry of National Education, the purpose of the performance evaluation process is to determine the effort, efficiency, success, knowledge, skill level, and needs of the teacher and take precautions or give rewards if necessary (Çekten & Özkan, 2018). Konan and Yılmaz (2018) stated that performance evaluation was carried out by school principals at the end of the 2015–2016 academic year within the scope of ten professional criteria determined by the Ministry of National Education. Since 2017, teacher performance has been evaluated by six different sources, including the director of the institution, group teachers, teachers outside the

group, the teacher themselves, parents, and students, with the help of measurement tools developed by the ministry (Taş, 2020). On the other hand, in private schools, performance evaluations can be done for contract renewal and teacher development. Teachers working in private schools may experience different evaluation processes with different criteria and resources compared to their colleagues teaching in public schools.

## **Teaching and Learning Approaches in Teacher Education** of Turkey

John Dewey, one of the most influential philosophers in education, developed sound theories that presented solutions to contemporary educational problems (Uygun, 2008). Dewey visited many countries, including Turkey, to help governments with educational developments (Uygun, 2008). He visited when the republic was declared, and the Turkish education system was beginning to be restructured. Therefore, he played a major role in laying the foundations of Turkey's education system. Indeed, Dewey's *pragmatic, democratic,* and *progressive* perspective on education was a big reason to be invited to Turkey, which was also reflected in Turkey's education policies (Garrison, 1999). As time passed, the approaches to education and the educational philosophies to be implemented changed according to the policies of each incoming government, and the basic philosophies on which the Turkish education system is based became more complex. This is because there are other philosophies believed to be implemented in Turkey, such as idealism, naturalism, conservatism, and materialism and efforts are still being made to establish a sustainable education system (Ünder, 2008).

When examining teaching and learning approaches, teacher training programs in Turkey are mainly based on the constructivist learning theory (YÖK, 2005). Curriculum studies in Turkey based on the constructivist view were first put into practice in 2005 with the renewing of primary education curricula implemented by the MEB, which was previously constructed upon the behaviorist view (Kaya & Karakaya, 2012; Yiğit, 2012). Later, with the updating of the secondary education programs, the traces of the behaviorist education approach that were at the base of the curriculum before 2005 were tried to be erased by MEB and YÖK. The constructivist education approach puts learners in the center, treats them as social individuals, and believes it is important for them to build their own knowledge (Dewey, 1897, 1907, 1958). In classrooms that implement constructivism, students' voices are heard rather than teachers', meaning student-centered activities are employed, and classrooms are designed to allow students to learn collaboratively (Dewey, 1897). In accordance with constructivism, teacher training programs in Turkey today apply active learning, activity-based learning, e-learning, and blended learning approaches in order to keep up with the digital age.

Thanks to the curriculum arrangements that came with the transition from the behaviorist approach to the constructivist approach, the activity-based learning (ABL) model, which is based on active learning, has also been implemented since 2005 (Kösterelioğlu et al., 2014). The learning environment is constructed around the active learning model, which promotes learning by doing. Throughout ABL, students experience an interactive learning process in which they independently investigate problem–solution situations. National literature reveals that pre-service teachers who experience ABL easily remember what they learned since what their knowledge remains stable, and it increases their collaborative learning experiences and interactions with their peers (Kalem & Fer, 2003; Kösterelioğlu et al., 2014). Another study reported that the constructivist classroom activities that force the active participation of pre-service teachers have a significant effect on their problem-solving skills (Kaya & Karakaya, 2012).

When it comes to examining the web-based teaching and learning approaches, the *e-learning* approach is implemented in Turkey through distance education programs (Toplu & Gökçearslan, 2012). The e-learning process includes self-directed learning using the Internet or a computer network. There is no limit in terms of time and place in reaching information and communicating with other learners and teachers synchronously or asynchronously with technology. Via e-learning experiences, learners interact with visual and auditory responses and individuals benefit from the superiority of the lifelong education method (Ankara University Distance Education Center [ANKUZEM], 2012). Distance education programs, which are carried out as two- and four-year programs, are free of charge in Turkey. There are many distance education programs in Turkey, such as public administration, business, child development, computer programming, radio and television programming, cooking, and graphic design.

In addition to e-learning, there is also the *blended learning* approach, which was first found at the Middle East Technical University (METU) online platform as an initiator of web-based education/asynchronous teaching system in Turkey (Çelik, 2001). Blended learning is "any combination of learning delivery methods, including most often face-to-face instruction with asynchronous and/or synchronous computer technologies" (So & Brush, 2008, p. 321). This learning model is also known as the hybrid learning model (Graham et al., 2005), which involves e-learning and is based on the constructivist learning model. Blended learning provides opportunities for students to have both online courses and face-to-face interaction with their instructors and peers. It has many advantages in terms of cost-effectiveness, easy access to knowledge, and ease of revision. While students have less time in the classroom, they experience more self-regulated learning (So & Brush, 2008).

In a review study conducted by Atmacasoy and Aksu (2018), the researchers investigated the contribution of blended learning opportunities to pre-service teachers in Turkey. The researchers noted that blended learning makes a significant difference in students' academic achievement in comparison with conventional instruction (Yıldırım, 2017), helps students track their learning (Yapıcı, 2016), and improves the teaching performance of pre-service language teachers (Güler, 2014). Moreover, preservice teachers reported having enjoyable learning experiences in blended learning

courses (Döş, 2014), which facilitated social interactions between peers and teachers and feedback (Karoğlu et al., 2014). Some studies also found that blended learning had no impact or no significant impact on pre-service teachers' attitudes (Güler & Şahin, 2016; Ünsal, 2012). While Güler and Şahin (2016) found a significant decrease in self-efficacy beliefs of pre-service teachers toward science education and attitudes toward technology, Ünsal (2012) indicated no significant difference in the motivation scores of pre-service teachers exposed to blended learning and conventional instruction.

### **Pedagogical Innovations and Practices**

Countries that support technological and scientific innovations are more likely to experience could have economic, social, and environmental development, which are pillars of sustainable development (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2005). Also, educational development could be achieved through such innovations, which is a new pillar suggested for sustainable development (Biasutti & Frate, 2017), since it guides people to gain the necessary skills, knowledge, and behaviors (Davis et al., 2008; UNESCO, 2005). Indeed, the pillars of sustainable development are dynamic, interrelated, and have a whole construct (Summers & Childs, 2007). In other words, each pillar affects and interacts with each other, and they build upon each other. For instance, countries that make economic innovations that foresee the sustainability of their environment achieve both economic sustainability and environmental sustainability. Moreover, countries that educate their society in accordance with pedagogical innovations and practices achieve societal and educational sustainability, which also brings economic development. Therefore, it may be said that the countries that encourage pedagogical innovations and implement practices progress forward and more likely to sustain the well-being of their societies (Güçlü-Yılmaz, 2021).

Innovative teaching and learning practices provide better learning opportunities for students and focus on multiple technological developments (Maurer et al., 2020). It is suggested to support creativity within the education systems since it is the source of innovation (Güçlü-Yılmaz, 2021). Indeed, pedagogical innovations and practices are believed to be constructed around increasing student ownership and the role conception of the student as an active researcher (Maurer et al., 2020). In this aspect, Maurer et al. (2020), with her colleagues, emphasizes the need for shaping students who create their own knowledge rather than only receiving it from teachers. Considering the nature of pedagogical innovations and practices, when we look at Turkey, we can see that the *Movement of Enhancing Opportunities and Improving Technology* (FATIH project in education) is a pedagogical innovation; the Ministry of Science, Industry, and Technology; the Ministry of Economy; the Ministry of Finance; the Ministry of Development; the Secretariat of the Treasury; and the Scientific and Technological Research Council of Turkey (TUBITAK). Through the FATIH project, the

MEB aims to increase the use of technology in classrooms (Çukurbaşı et al., 2016). In order to do this, students are provided tablets, smart boards, and an Internet network infrastructure to achieve equal opportunity in education (İşçi & Demir, 2015). As a part of the FATIH project, Educational Informatics Network (*EBA*) also has been developed, which appeals to a wide audience—from pre-school children to 12th-grade students. EBA is a digital and distance education platform developed by the MEB to provide interactive lessons, books, videos, exercises, and coursebooks that can be used by teachers and students. While using EBA, the users can chat and discuss topics relevant to the curriculum contents. EBA also involves leisure time activities, such as cartoons and documentaries, that contribute to teachers' and students' personal development. Furthermore, EBA measures students' performance based on their assignments and exams, analyzes their progress over a term, and determines in which subjects they have deficiencies and strengths.

There is much research that focuses on the efficiency and success of the FATIH project. One study reported that tablets and iPads increased students' attraction to the courses and their success since the lessons were more entertaining (Dündar & Akçayır, 2012) while other studies reported that use of computer tablets sometimes caused interruptions owing to access problems, and the use of interactive boards had negative effects on classroom management and made both teachers and students passive in classrooms (Banoğlu et al., 2014; Dursun et al., 2013). However, it should be emphasized that it is not the boards but the teachers who should be smart and trained to integrate information and communication technologies into the curriculum (Pouezevara et al., 2013). In fact, it has been observed that teachers who do not actively use information and communication technologies in their classes use tablets less. Additionally, students are more likely to voluntarily take notes when teachers use technology in their classroom (Pouezevara et al., 2013).

Although 12 years have passed since the FATIH project, it is thought that the MEB still has not achieved its targeted gains and that necessary and sufficient teacher training has not been provided in order to use technological tools in accordance with their purpose (İşçi & Demir, 2015). This is because, although teachers are found to use tablets or any technology provided by the FATIH project, they prefer not to use them due to technical problems such as insufficient tablet content and having no z-books-enriched books with audio, video, animation, graphic, or tablet contents-on smartboards (İşci & Demir, 2015). The teachers also reported that they have problems with controlling students while they engage with tablets during lessons because students are playing games instead of using them as educational tools (İşçi & Demir, 2015). Such a problem would be solved through uploading software or programs that prevent students from engaging with activities unrelated to the lesson. However, the fact that most teachers do not know which programs to upload to solve this problem causes it to continue. Hence, it is emphasized to enrich the content of tablets and smartboards and support teachers' professional development by identifying and meeting their needs via both pre-service and in-service training (Education Reform Initiative [ERI], 2013; İsci & Demir, 2015).

### **Professional Development in Educating the Next Generation**

Professional development is an ongoing process in which "individuals' skills, knowledge, expertise and other characteristics" are improved as a teacher (Organization for Economic Cooperation and Development [OECD], 2009, p. 49). It also helps teachers to acquire and use new teaching techniques and strategies concerning the curriculum (OECD, 1998). Professional development promotes new skills, knowledge, and professional growth. A growing body of literature states that school factors determine student learning and achievement, and teachers are one of those important factors that should be involved in educational policy discussions to improve teacher quality, and student achievement accordingly (Bellibas & Gümüs, 2016). It may be stated that teachers who constantly renew themselves are possibly better at understanding the importance of the teaching profession (Tonbul, 2006) and internalize and practice their profession more effectively with professional development opportunities (Corcoran, 1995). This means that teachers who develop themselves via professional development activities are more successful in affecting students' learning and academic success. In this context, it can be concluded that pre-service and in-service training are vital to acquire the professional competence that enables teachers throughout their teaching careers.

In this chapter, the professional development of teachers in Turkey was elaborated in two aspects: pre-service and in-service training. Many reports mainly focus on the professional development of teachers or educators as a process that happens after graduation or define it as "any learning opportunity for practicing teachers" (Koellner & Greenblatti, 2018, p. 1). However, we believe that before graduation, many courses and activities contribute to professional development during pre-service training (e.g., teaching practice, and community service activities). The field experiences and activities bringing social and peer interaction affect and determine teacher candidates' teaching profession (Seferoğlu, 2006; Wray, 2007). Indeed, in a study conducted with pre-service teachers, Seferoğlu (2006) reported that the factors that most affected the teaching professions of teacher candidates were school experience and microteaching. There are also models that elaborate on the professional development of pre-service teachers (Darling-Hammond, 1994; Dinsmore & Wenger, 2006; Sim, 2006). Therefore, in this chapter, the pre-service training period will be handled as one of the significant elements of professional development.

## **Professional Development in Turkey**

To begin with pre-service teachers, one of the significant contributors to their professional development is practical courses given during teacher training programs. Teacher training programs in Turkey include several practical courses at different grade levels. One of them is "Community Service Practices," which is a course that involves pre-service teachers doing volunteer work and projects. Unlike the USA of America and other Western countries, this course has only been taught in education faculties since the 2006–2007 academic year as a result of the changes made by YÖK. In Western countries, all faculties apply community service activities in higher education (Uğurlu & Kıral, 2013). This course is compulsory and consists of two credits and three hours per week, one hour of which is theory and two hours are practical. The course is usually applied in the third year, in the fall or spring semester, according to departments' education programs (Noyan & Kesten, 2020). In this course, the pre-service teachers are expected to solve an educational, economical, and societal problem that society faces and meet the needs of a target group. They are supposed to work and act collaboratively throughout the semester (YÖK, 2011). In this process, students are active in the foreground while lecturers support and monitor the pre-service teachers through theoretical knowledge and give feedback on their community service projects. It is reported that professional development best occurs in environments where pre-service teachers practice and reflect on their work with the help of an instructor who better knows the teaching and learning process and is a master practitioner (Yiğit, 2012). Throughout the process, pre-service teachers strengthen their peer relationships while collaborating and enhancing their field experiences in accordance with the instructor's awareness of their professional development. Like other countries, the activities are outside the classroom environment and are in touch with the community (Noyan & Kesten, 2020).

When it comes to understanding the efficiency of the community service course in Turkey, the views of pre-service teachers, teachers, and school principals revealed that the community service practices course can achieve the goals defined by YÖK (Ekşi & Cinoğlu, 2012). The results of the same research show that the lack of financial resources prevents pre-service teachers from carrying out community service projects as they wish, and they encounter communication problems with school principals or teachers and need instructors to be included in school meetings about the projects. According to the study by Uğurlu and Kıral (2013), pre-service teachers stated that the community service practices course greatly contributed to their personal and professional development and supported and improved their skills such as self-confidence, teamwork, and communication. Hence, it may be concluded that community service practices have a big potential to improve preservice teachers' personal development and teaching profession before they teach in their own classrooms.

Another contributor to pre-service teachers' professional development is the "Teaching Practice" course given at all educational faculties in Turkey. It is an eighthour course—two hours theoretical and six hours practical—spanning two semesters. Instructors, who can advise a maximum of six students, support prospective teachers in developing their skills in writing and applying effective teaching plans in this process (MEB, 2021). In addition, the instructors regularly observe the practices of the prospective teachers and help them to improve their practices with their feedback. Both lecturers and mentor teachers in practice schools contribute to the professional development of teacher candidates. Throughout the process, teachers set an example for students in classroom management and effective teaching strategies with their practices inside and outside the classroom. In addition to teaching practices, the

most used technique to develop prospective teachers is microteaching in which the instructors examine a recording of a teaching session and give constructive feedback to improve the teaching technique.

The professional development of teachers in Turkey is also supported through in-service training. The MEB reports the goals of in-service training as "to ensure the adaptation and predisposition of teacher candidates, increase the efficiency of teachers by improving their knowledge and skills, and ensure the adaptation of teachers to the changes and developments for effective teaching" (2006, p. 12). The in-service training involves one-shot seminars, ateliers, and workshops that sometimes inhibit the active participation of teachers—that is activities are delivered in sit and listen manner (Öztürk, 2019) which is criticized due to a lack of active participation (Karip, 2018; Kösterelioğlu et al., 2014).

The in-service training of teachers is also supported through School-Based Professional Development (SBPD). It is defined as the whole of processes that supports the development of teachers' professional knowledge, skills, values, and attitudes inside and outside the school (MEB, 2010). SBPD is a new concept that supports teachers in creating effective learning and teaching environments. It helps teachers to evaluate themselves in terms of individual and professional needs through a *strengths, weaknesses, opportunities,* and *threats* (SWOT) analysis (Kaya & Kartallioğlu, 2010; MEB, 2010). Indeed, SBPD provides a roadmap for teachers that want to develop their professional competencies, create their own development model, and implement and monitor the professional development plan.

SBPD has an important place in in-service training for schools, administrators, teachers, students, and parents (MEB, 2010). First, it constructs a democratic school culture in schools based on approaches aimed at school development. The understanding that everyone can learn from each other and improve themselves makes it possible to share professional knowledge and experience. Indeed, group teachers support their professional development through peer learning by exchanging views with each other (Yüksel & Adıgüzel, 2012). Second, since SBPD targets the learner at its core, practices also include lifelong learning, sustainable leadership, and guidance. SBPD is aimed to develop the professional competencies of teachers and administrators, including guiding their professional development studies, developing by recording their creativity and teaching practices, and working in collaboration (MEB, 2007, 2010). Third, with the help of SBPD, the teachers, administrators, and school culture are improved in accordance with student needs, which should result in increased self-confidence, active participation in lessons, and academic success. Last, SBPD gives importance to parents' involvement in the development process of school, teachers, and students (MEB, 2010). In this context, parents are supported by providing learning opportunities that improve their parenting skills and raise awareness of how they can support their children's education.

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# Part II Innovations in Teacher Education

# Chapter 9 Innovative Practices Implemented by Preservice Teachers During Their Field Experience: Lesson Learnt from Face-to-Face and Online Field Placement



#### Sandra Baroudi and Zeina Hojeij

Abstract Field experience otherwise known as practice teaching or practicum became the foundation of teacher preparation programs bridging the gap between theory and practice. The practical/field experience is viewed as a significant learning curve for preservice teachers as it provides them with the opportunity to build their pedagogical proficiencies in preparation to joining the workforce. To that end, teacher preparation programs should be well structured and maintain strong collaborations with partner schools in which preservice teachers are placed during their field experience. It is as equally important to specify the role of mentors and ensure direct communication between them and preservice teachers. In the United Arab Emirates (UAE), the challenges for preservice teachers in their field experience have been explored. However, with the onset of the COVID-19 pandemic and owing to the subsequent and sudden shift to online learning, preservice teachers became involved, for the first time, in virtual field placement. Hence, the purpose of this chapter is to provide (1) an understanding of preservice teachers attitudes toward online field placement and (2) a summary about their challenges in both face-to-face and online field placement. Furthermore, this chapter highlights the innovative practices that were implemented during their teaching experience to help them adapt to the unprecedented changes and overcome the challenges they faced. This chapter will start with a description of field experience and its benefits to preservice teachers. This will be followed by a presentation of the structure of field experience in the UAE and a highlight of the main challenges that preservice teachers faced during their face-to-face and virtual field experience during the pandemic. The last section will discuss the innovative practices that were adopted to allow preservice teachers to acclimatize to the sudden transition to virtual learning and will provide main key points and takeaways.

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# Field Experience: Description and Benefits to Students' Learning

Field experience has become the cornerstone of teacher education because it provides preservice teachers with authentic opportunities to practice teaching. Field experience is considered as a high impact experience and a period of intense learning and growth if/when carried out professionally (Altan & Sağlamel, 2015, p. 13). During their field placement, preservice teachers experience being in real classrooms where they are given a chance to observe and learn from an experienced teacher, to interact with pupils, and are then expected to design and teach lessons based on the subject area they select. In other words, they will acquire the full, albeit short, experience of being in charge of a classroom (Feiman-Nemser & Buchmann, 1987). As such, teacher preparation programs provide preservice teachers with practical experience that enhance their teaching and learning experiences and increase their competence. To ensure cohesive and comprehensive preservice teacher preparation, these programs are designed based on a cooperative model between schools and universities with shared resources, strategies, and best practices (Lombardi, 2001). However universities prepare preservice teachers with qualifications and skills to teach and assign each student teacher a faculty supervisor to guide him/her and guarantee a smooth and beneficial experience, the schools provide preservice teachers with the classroom placement, a teacher mentor, and materials needed to design and deliver their lessons.

To date, literature has revealed the positive impact of field experience on increasing preservice teachers' self-confidence and teaching ability (Clark et al., 2015). In their field experience, preservice teachers gain several pedagogical proficiencies such as planning for differentiated instruction, building communication channels and stronger relationships with students, and developing classroom management skills (Hamaidi et al., 2014; Kent & Giles, 2016). Furthermore, field experience provides preservice teachers with the opportunity to bridge the theory and content learned in their preparation courses with practical field experience (Feiman-Nemser & Buchmann, 1987; Lombardi, 2001). As such, they become competent in applying knowledge in the classroom, which consequently will increase their confidence level as they become capable of explaining complex or abstract concepts to students (Hamdan, 2015). In the UAE, similar findings were confirmed showing the impact of field experience on improving preservice teachers' content knowledge, teaching strategies, and classroom management skills (Hojeij et al., 2021). All these benefits can be reaped with good quality coaching and supervision. Hence, it is expected that faculty supervisors, mentoring teachers, and the preservice teachers are provided with a clear delineation of their roles. Building relationships and trust between them would increase preservice teachers' commitment and self-efficacy to perform instructional

tasks (Clark et al., 2015). When faculty supervisors and teacher mentors facilitate the learning of preservice teachers, they positively impact their knowledge and skills and ensure that they develop pedagogical proficiencies for improved performance once they join the workforce (Hanline, 2010).

During field experience, the faculty supervisor's role is to ensure that both the teacher mentor at school and the preservice teacher are clear about their roles and meeting the expectations of the program (Hojeij et al., 2021). Therefore, the teacher mentor's role is crucial to prepare preservice teachers for their transition into the teaching profession. To that end, the teacher mentors should be skilled and qualified to adequately guide and support preservice teachers to deal with the various complexities of teaching practices (Altan & Sağlamel, 2015). It is the responsibility of both the universities and schools to find the most suitable match for the teacher mentor to enrich the preservice teachers' field experience. Additionally, it is essential that the scheduling logistics, accessing school materials and equipment as well as supporting preservice teachers identifying students' needs, meeting the curriculum outcomes, and dealing with school environment are facilitated for preservice teachers (Hamaidi et al., 2014; Kent & Giles, 2016; Saricoban, 2010). Additional challenges included insufficient prior orientation, inadequate guidance from faculty supervisors, and lack of support from mentor teachers. To that end, researchers concurred that having a strong collaboration and interaction between faculty supervisors, school teacher mentor, and preservice teachers would positively impact the field experience and lessen the obstacles that might hinder their progress (Altan & Sağlamel, 2015; Cuenca, 2010). The social interaction and collaboration between the teacher mentor and preservice teachers and the learning of the latter will be promoted resulting in improved performance (Crain, 2000).

With the aforementioned benefits of teacher preparation programs, it is argued that to this date, preservice teachers often fail in applying teaching methodologies in their classrooms and/or engaging students and raising their interest (Hamdan, 2015; Hojeij & Baroudi, 2021). Furthermore, with the sudden shift from face-to-face to online learning during the pandemic, these benefits became questionable, and the challenges of field experience became unclear when teaching practice shifted to a virtual environment. In face-to-face teaching, school teacher mentors facilitate preservice teachers teaching experience in order to master the subject content and to follow student-centered approaches in their teaching techniques. However, we wonder to what extent teacher mentors' support in online teaching is valued. What other factors facilitate or hinder preservice teachers experience in online teaching particularly during their field experience? What innovative practices were implemented during their online teaching to help them adapt to the unprecedented change? These questions will be answered in the following sections, but for a better understanding of the field experience context for preservice teachers, it is first necessary to understand the structure of teacher preparation programs in the UAE.

#### Structure of Field Experience in the UAE

In the UAE, in order to join the teaching profession, teachers need to obtain a minimum qualification of a four-year undergraduate bachelor's degree, mainly in education. This applies to both public and government schools in the country (https://u.ae/en/#). These programs include practical experiences and internships where students can practice the skills that they need in authentic learning environments. Students are required to take four field experience placements at a partner school during their teacher preparation program. Practicum I should be undertaken by preservice teacher in their fifth semester. This practicum will allow students to observe the learning environment in the primary-level classrooms and reflect on the teaching practices of the teacher. Then they need to complete Practicum II in semester six to experience teaching microlessons for the first time to small groups of students and engage in lesson planning and selecting and applying teaching strategies and reflecting on these. In semester seven, preservice teachers will be involved in Practicum III, where they will have the opportunity to teach a whole class and reflect on their lesson planning and teaching experience. The final placement is usually a full-time teaching internship which occurs during their last semester (semester 8), and the preservice teacher takes over an early childhood class for an entire semester of 15 weeks, carrying out full teaching duties (www.zu.ac.ae; www.uaeu.ac.ae). Students will also be involved in an action research component to present at the end along with their reflections.

Public universities in the UAE require their preservice teachers to complete scaffolded multilevel field experience placements in both private and public schools. During these placements, the preservice teachers are assigned on-site teacher mentors along with a university supervisor each. Both the mentor and the university supervisor monitor and guide preservice teachers during their practicum journey and ensure that they are attending classes, observing the teaching practices of the mentor classroom teacher and reflecting on the teaching practices. They also follow up closely on the teaching experience of preservice teachers as they progress through the field experience to guarantee that they are developing effective lessons plans for micro and whole classes teaching and that they are reflecting on their teaching experience by identifying their successes and failures and how they can improve in the future. That being said, the field experience placement prepares preservice teachers to become homeroom teachers where they will teach English, Arabic, math, and science. They learn and practice under the guidance of their mentor teachers who are the actual classroom teachers. Those mentors assign the lessons and the curriculum plans to be taught by the preservice teachers. They also conduct reflection sessions about the teaching days and evaluate performance both formatively and summatively. In addition, the university faculty supervisor (course professor) is also assigned to the preservice teacher to monitor the field experience. The supervisor conducts several visits to the school to track progress of the student teacher (Hojeij & Baroudi, 2021; Hojeij et al., 2021).

However, with the onset of the COVID-19 pandemic and with the sudden shift to the online learning, preservice teachers became involved for the first time, in virtual field placements. Preservice teachers completed Practicum I, II, III, and internship virtually by attending online primary-level classrooms. During the second semester of the academic year 2019–2020, all primary teachers and students adopted for the first time in the UAE a fully online class. Luckily, the Ministry of Education (MOE) in the UAE acted immediately to ensure that learning continues and that no child is left behind. The MOE in the UAE provided schools with online platforms and educational resources and offered students at the public schools with digital tablets. Teachers were involved in extensive training programs to prepare them for this transition and ensure that they are nurturing a positive online learning environment for all learners. Nevertheless, this sudden shift to full distance learning was overwhelming and added extra workload on everyone, particularly on teachers (Bachem et al., 2020). Teachers were busy learning how to use the LMS, the best online pedagogical techniques, and how to remotely manage the classroom and assess online their students' learning. Students were having difficulties accessing tasks assigned by the teacher online, and many were not fully committed to the online learning. This was evident when preservice teachers who were observing an online classroom mentioned in their reflections that due to the fact that the cameras were turned off by both preservice teachers and their students, and it was not always guaranteed that students remained in class during the whole lesson (Hojeij & Baroudi, 2021). Disabling the cameras during the online instruction was a major factor that negatively impacted preservice teachers' ability to engage their students and decreased their motivation during the lesson (in press). Hence, when collecting their reflections, preservice teachers always mentioned that they wished for the pandemic to end to actually gain beneficial experience from their field placement (Hojeij & Baroudi, 2021). More about these challenges are presented in details in the section below.

#### Field Experience Challenges: Face-to-Face and Online

In face-to-face field experience, the challenges faced by preservice teachers are related to both pedagogical and instructional factors and to program structure factors. The most common difficulties that have been identified with face-to-face field experiences are problems with student misbehavior which can be manifested by talking out of turn, disrupting other learners, and not paying attention to the lessons being taught. Such behavior interferes with the learning and teaching process of the teacher candidates and renders them less confident; hence, it increases their stress level. Furthermore, new to such management skills and lacking practical experience, preservice teachers feel inexperienced in managing classrooms (Paramita et al., 2020).

Regarding the structure of the teaching preparation program, preservice teachers have indicated that they are not given the option to choose the type of school and class level that they would like to be placed in. As such, the logistics and scheduling processes caused additional stress for them (Hojeij et al., 2021; Meegan et al., 2013).

School proximity in the UAE was regarded as an issue for both preservice teachers and supervisors, as some preservice teachers do not drive and have no transportation arrangements, and some supervisors were given two classes to observe in two different schools on the same day (Hojeij et al., 2021).

Furthermore, technological trends overtaking education in K-12 over the past two decades produced an urgent demand for more qualified online teachers (Cirillo et al., 2020; Kennedy & Archambault, 2012). In particular, the sudden shift from face-to-face to online learning during the pandemic increased this need as many teachers were placed in this virtual teaching and learning environment without any formal training and with minimal preparations (Rice & Dawley, 2009). As a result of this shift to the online teaching, practical courses also had to adapt to the new norm where preservice teachers were involved in a virtual field experience for the first time ever. Neither the content course, nor the structure of these programs was designed to fit with the new norm. As such, preservice teachers, faculty supervisors, and school teacher mentors were operating blindly without any clear directions or guidelines.

Online teaching differs greatly from face-to-face instruction in terms of studentteacher interaction and learning-teaching tools. Most saliently, the success of online instruction is dependent not only on the quality of mentoring and supervision, as discussed in the first section of this chapter, but also on the quality of Internet connectivity and the level technical knowledge of both students and teachers. The virtual classroom requires teachers to be technologically competent; teachers are expected to know which tool to select and how to use it effectively to facilitate instruction. In a substantive meta-analysis conducted by Schmid et al. (2014), data showed that technological efficiency was dependent on the teachers' ability to cognitively engage the students in the learning experience. This finding affirms that it is not sufficient to introduce teachers to the latest trends in technologies but rather train them on how to use them as cognitive support tools. Hence, an unexpected challenge was placed on these novice teachers who should have not only pedagogical and content knowledge, but also strong technological proficiency to ensure the success of their virtual environments (Cirillo et al., 2020). It is arguable however that the role of an expert mentor remains crucial to provide the support for preservice teachers during their virtual field experience and increase their engagement with the online teaching (Luo et al., 2017). The mentor in that case can model an online lesson for preservice teachers where they observe their classroom management skills and the way they are engaging students. Even when that was the case, preservice teachers felt uncertain about how to deliver an online class and what approaches they can adopt to engage students in their learning (Baroudi et al., in press).

During the pandemic, 150 teachers from six different Arab countries reported their inadequacy in designing online instruction (Baroudi & Shaya, in press). In particular, preservice teachers in the UAE reported a strong association between their ability to design online instructional strategies with their online teaching satisfaction (in press). This suggests that teachers who are not prepared to design the online instruction had a negative virtual field experience. Whenever teachers struggled to design online instruction, they experienced overload, which impacted their motivation and commitment (Baroudi & Shaya, in press). This challenge came in addition to other

tasks and responsibilities that they had to accomplish to meet the course requirements. As such, it becomes vital to train preservice teachers on the use and implementation of digital platforms as a means to increase their skills in designing the online instruction. Consequently, their confidence level would increase which would minimize any worries and challenges that they might face during online teaching (Roche & Rolland, 2020; Sasaki et al., 2020; Zolfaghari et al., 2020).

On another note and as highlighted above, students' technological knowledge plays a crucial part in the success of online learning. It has largely contributed to preservice teachers' self-efficacy in online teaching since it ensures that students are logging into the online classroom and are able to navigate through the different apps and tools shared by the teacher. Students' lack of technological knowledge remains, and in line with previous studies, such as Dong et al. (2020) and Ferri et al. (2020), a key concern for students and teachers in online learning. It is because students' technological knowledge impacts the level of their interaction, engagement, and participation in the online class.

An additional contextual challenge that emerged from the recent literature was the fact that during the online teaching, the cameras were turned off by both preservice teachers and their students. Emirati female teachers prefer having their cameras off to protect their privacy (Hojeij & Baroudi, 2021). While the cameras being disabled during online instruction are in line with the cultural norms of the context, having them turned on would have increased the preservice teachers' ability to engage their students and increase their motivation during the lesson.

When exploring the role of school mentors' support and its association with preservice teachers online self-efficacy and satisfaction with online teaching, recent results were inconclusive and controversial. In one study, the impact of mentors' support was low toward enhancing preservice teachers' self-efficacy and satisfaction in online teaching. It had also the lowest correlation with preservice teachers' ability to design online instructional strategies, online classroom management, and students' engagement during the online teaching (Baroudi et al., in press). In other studies, conducted by Hojeij and Baroudi (2021) and Hojeij et al. (2021) in the same context, preservice Emirati teachers explained that the support, guidance, and feedback they have received from mentors made this new experience easier and abated their fears and reduced their stress levels. The feedback received from their mentors set them on the right track and helped them see and rectify their mistakes. Moreover, the mentor helped them in creating lesson plans for online instruction and modeled classroom management techniques and teaching strategies. As quoted from one participant:

At the beginning of the course, I was scared, and I didn't have confidence because I was thinking about the idea of distance learning and it was a new experience; but when I started, it was like so great and the mentor teacher was so helpful and she advised me and she gave me access to some websites and some links, I actually learned many things.

The feedback from my mentor helped me to create lesson plans that fit with any class activity. Also, in my first teaching, I didn't know how to control the class because students were opening their mics and speak without my permission. Therefore, my mentor asked me to set the class rules in every lesson. I thought the class rules were not important in the online class, but it turned out to be very important. (mentioned in Hojeij & Baroudi, 2021)

Whether school mentors' support was beneficial to preservice teachers in their virtual field experience or not, recent literature clearly suggests that the most significant factor to ensure preservice teachers' effectiveness in the UAE context is their ability to use educational technologies and to design online instruction (Baroudi et al., in press; Baroudi & Shaya, in press). As such, professional development programs for both, in-service and preservice teachers in the UAE should strongly focus on developing their digital literacy and on the use and integration of the appropriate technology with their pedagogical content. Preparing teachers with the knowledge and skills in using and integrating the educational technologies in their instruction would improve their competencies in designing instructional strategies and at the same reduce their anxiety and increase their classroom management skills (Robinia & Anderson, 2010). Consequently, students' improved engagement in the online lessons would lead to better quality online teaching and learning environments (Baroudi & Shaya, in press; Dolighan & Owen, 2021). When teachers are trained to design online instruction, they succeed in delivering the content at the allocated lesson time and enhance their capacities to design learning activities that would ensure students' engagement (Hampton et al., 2020; Horvitz et al., 2014). Training both in-service and preservice teachers to teach online would also strengthen preservice teachers' abilities in classroom management and increase their self-efficacy in online teaching (Baroudi & Shaya, in press).

All of these challenges faced by preservice teachers during the virtual field experience negatively impacted student engagement in the lesson. These novice teachers, despite having their mentors' support, were still uncertain about ways to enhance student engagement in their lessons. This barrier impacted the success of the online teaching and influenced preservice teachers' beliefs and attitudes toward online teaching. Consequently, to overcome the problems that reduced the quality of teaching pedagogies in online teaching and to nurture a positive learning environment for students during the pandemic, preservice Emirati teachers adopted innovative practices as discussed in the section below.

# Preservice Teacher Innovative Practices During the Online Teaching

This section will present several guidelines and innovative practices that preservice teachers in the UAE adopted to boost their online practicum experience. First and foremost, teachers giving online classes must grasp a solid knowledge of pedagogy, content, and proficiency in the technology and platforms (Cirillo et al., 2020). Digital knowledge in the following areas has been found to be extremely helpful to preservice teachers with online teaching: managing files, using presentation software and spreadsheets, Internet searching, video editing, image/movie development, and maintaining blogs and websites. Secondly, student teachers need to be able to understand and use computer hardware and integrate their use in the lessons they give. Such

digital proficiency has shown to increase preservice teacher confidence in a virtual setting (Baran, et al., 2011; Starkey, 2020). Thirdly, preservice teachers learn and manage classrooms better when they have opportunities to observe their mentors during online sessions. Such observation allows them to better engage with their students and monitor their progress. Preservice teachers have indicated that collaboration with mentors and timely feedback from them helps improve their online teaching skills (Hojeij & Baroudi, 2021; Luo et al., 2017). They also found that watching videos about online teaching is helpful for grasping teaching techniques and classroom management skills (Hojeij & Baroudi, 2021).

Additionally, metacognition, individual initiative, clarity, and time allocation were viewed as important aspects of the process. Student teachers in the UAE emphasized the importance of reflecting on their online teaching experiences (Hojeij & Baroudi, 2021). It is through reflection that educators can learn from mistakes and gauge their success (Sanders, 2021). In terms of efficacy, preservice teachers in the UAE also reported that student engagement increased when they initially selected students to participate during classes instead of waiting for pupils to volunteer. This practice helped avoid disruption and chaos in the virtual classroom. Additionally, employing clear rules and routines ensured that students behaved better. Last but not least, allocating time to each student for discussion ensured positive student behavior (Hojeij & Baroudi, 2021).

As a response to students' disengagement, especially due to teachers and students not turning on their cameras, preservice Emirati teachers found that placing students in breakout rooms reduced the consequences of this barrier. They believed that implementing a collaborative learning approach developed students' learning and expanded their knowledge. By creating collaborative learning activities, students in their group can accomplish more (Hojeij & Baroudi, 2021). Also, by structuring group and paired activities, using breakout sessions, and using interactive learning platforms, preservice teachers decreased students' misbehavior and increased their attention and participation at all times during the lesson. As such, preservice teachers felt more in control of the online environment and in managing the online classroom.

Parent involvement was seen as another way to ensure a successful online teaching experience. By establishing strong relationship with parents, preservice teachers increased their students' participation in the lessons. Particularly, in the UAE and as mentioned earlier, the cameras were turned off during the online classroom, and preservice teachers asked for parents to make sure their children were always physically present to attend the entire lesson. Having parental involvement decreased students' misbehavior, disengagement, and minimized the chance of withdrawing from the lesson without taking the teacher's permission to do so. As such, having a trusting and cooperative relationship with parents from one side and believing in the engaging role of parents in their children's learning from the other side increased preservice teachers' feelings of accomplishment and confidence (Stipek, 2012).

# Conclusion

Despite the numerous challenges faced by Emirati preservice teachers during their virtual field experience, the benefits outweighed these challenges. This is evident in the learning curve and the initiatives that they took to make this experience as beneficial as possible. Preparing novice/preservice teachers with the use of technology is necessary but not sufficient; it is equally important to expose children to the technology and build parents' digital literacy as well raising students' engagement and academic achievement during online teaching. Furthermore, training preservice teachers to design online instructional strategies and equipping teachers with technological knowledge and skills should be the number one priority for curriculum designers when revisiting the structure of teacher preparation courses. Increasing preservice teachers' familiarity with the educational technologies would ensure efficient delivery of the content, enhance positive teacher-student relationships, and engage students in online discussions (Paramita et al., 2020). Having a wellstructured field experience in teacher education programs would minimize the hurdles of this experience for faculty supervisors, school teacher mentors, and preservice teachers (Hojeij et al., 2021). Having qualified mentors who constantly provide constructive feedback is equally important. Revisiting not only the structure but the duration of the field experience placement over ten consecutive days instead of once per week would increase preservice teachers' familiarity with the school program and help them to establish better relationships with students (Hojeij et al., 2021). Finally, equipping preservice teachers with the digital knowledge is key to a successful virtual teaching experience.

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# Chapter 10 Teacher Education Programs in Lebanon: Innovations in the Past Decade (2011–2021)



Saouma BouJaoude and Rana Baddour

**Abstract** Several studies have investigated the nature of teacher education programs in Lebanon. These studies described the requirements of Lebanese teacher preparation programs, identified the differences and similarities among these programs, and discussed the theoretical perspectives driving them. Other studies looked into the preparation of subject matter teachers such as mathematics and science teachers, among others. Exploring the similarities and differences among these programs was motivated by the fact that there are varieties of Lebanese private universitiesin addition to Lebanon's sole public university—that adopt American or French educational models to prepare teachers. Previously published studies on teacher preparation used qualitative and qualitative research designs. For example, a mixedmethod approach was used to investigate the structural and conceptual foundations of programs; another study used document analysis to identify the content of the programs, while a third analyzed course syllabi of teacher education courses to identify the types of mathematics teaching methods adopted. However, there has been no attempt to critically analyze and synthesize the extant research and identify the "innovations" that have been introduced in these programs over the past decade and in response to the pressures exerted on universities due to the COVID-19 pandemic and political turmoil in Lebanon. Consequently, the purpose of this chapter is to conduct a critical review of the literature on teacher education in Lebanon and supplement it with an analysis of the innovations implemented across a sample of the major existing teacher education programs.

Keywords Teacher education  $\cdot$  Lebanon  $\cdot$  Innovations  $\cdot$  COVID-19  $\cdot$  Assessment practices

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# Introduction

Research has been conducted to investigate the requirements of Lebanese teacher preparation programs, identify the differences and similarities among these programs, and discuss the theoretical perspectives driving them. Other studies looked into the preparation of subject matter teachers such as mathematics and science teachers, among others. Exploring the similarities and differences among these programs was motivated by the fact that there are varieties of Lebanese private universities that adopt American or French educational models to prepare teachers in addition to only one public university, specifically the Lebanese University which has branches across the country. However, there has been no recent attempt to critically analyze and synthesize the extant research on teacher preparation and identify the "innovations" that have been introduced in these programs over the past decade and in response to the pressures exerted on universities due to the COVID-19 pandemic and political turmoil in Lebanon. Consequently, the purpose of this chapter is to conduct a critical review of the literature on teacher education in Lebanon and supplement it with an analysis of the innovations implemented across a sample of existing teacher education programs in major universities. However, we start by describing the complex terrain of teacher education in Lebanon to provide a context for the rest of the chapter.

# The Terrain of Teacher Education in Lebanon

According to El Amine (2012), teacher education programs in Lebanon were originally offered by a teacher training center which was established in 1931 in Beirut during the French mandate. Later, similar centers were established across the country. Applicants to these centers were required to complete entrance exams and only those who passed the exams were accepted in the training centers. Some of these centers were responsible for preparing elementary and middle-school teachers, while others were responsible for preparing secondary school teachers. Teachers who graduated from these centers were admitted to the teaching profession in the public sector. Another method for admitting teachers to the public sector was through hiring contractor teachers. This trend started in 1961 to respond to the needs of schools in geographically remote areas and became more prevalent following the 1975 civil war either to alleviate shortages of teachers in some areas or to reward teachers for their political allegiance; both of which led to an over-supply of teachers who were inadequately prepared. In 1979, the implementation of law number 1833 was a major turning point in the preparation of secondary school teachers. This law substituted the five-year program for preparing secondary school teachers offered by the College of Education of the Lebanese University with a two-year program which required that applicants have a university undergraduate degree in a subject area and pass the civil service exam (El Amine, 2012). This change seemed to impact negatively the quality of teacher preparation especially that various issues were reported by teachers

who were enrolled in the two-year training program including weak infrastructure, transportation issues, inadequate timing, limited resources, and the frequent use of traditional didactic methods in teaching, among others (Ballout, 2013).

Currently, preparing public school teachers is the responsibility of the College of Education of the Lebanese University; the only public university in Lebanon.<sup>1</sup> On the other hand, several private colleges and universities offer programs that prepare teachers for the private sector. Overall, teacher education programs are offered by several higher education institutions (HEIs) which are under the supervision of the Ministry of Education and Higher Education (MEHE). Accordingly, there is a wide variety of teacher education programs in Lebanon in terms of their theoretical perspectives, requirements and characteristics, and the type of degrees they offer. This variety is justified based on the higher education model followed by the institution at which the programs are offered including American, French, Arab, or Lebanese models (BouJaoude, 2000; Freiha, 1997). Moreover, the differences among the teacher preparation programs in Lebanon became more evident in the absence of an independent national quality assurance system of higher education (Ayoubi, 2007). Although a law for the creation of such a national quality assurance system was approved in 2012, it has not been implemented.

The variety of Lebanese higher education institutions resulted in three major types of teaching qualifications. One type of qualification is modeled on the "bachelor's–master's–doctorate" system (licence-master-doctorate or LMD) model which resulted from the European Bologna process.<sup>2</sup> The LMD model is sometimes referred to as the "3-5-8" model, where it takes three years to complete the "Licence," two additional years to complete the "master," and three additional years beyond the master to complete the "doctorate." This model is adopted by the Lebanese University and Université Saint Joseph (Saint Joseph University). The second type of qualification adopts the bachelor's (B.A.) model which is typically offered by American Universities. The third type of qualification is the teaching diploma (TD) which is a post-bachelor's degree that is typically taken by students who decide to get a qualification when they are completing a bachelor's degree in a content area or after completing the degree. Below please find a brief description with examples of the types of qualifications described above.

<sup>&</sup>lt;sup>1</sup> The National Center for Educational Research and Development (CERD) as well as the Ministry of Technical and Vocational Education were involved in teacher preparation in the past but have not played this role recently.

<sup>&</sup>lt;sup>2</sup> Bologna Process: European Higher Education Area (EHEA)—https://web.archive.org/web/201 60831020548/http://www.ehea.info/article-details.aspx?ArticleId=5.

# Universities that Adopted the "Bachelor's–Master's–Doctorate (LMD)" Model

As indicated above, the two universities in Lebanon that have adopted the "bachelor's-master's-doctorate" model are the Lebanese University and Saint Joseph University. Those two universities have adopted the "European Credit Transfer and Accumulation System (ECTS)" which is different from the credit system used in American-style universities. According to European Commission, the "ECTS allows credits taken at one higher education institution to be counted toward a qualification studied for at another. ECTS credits represent learning based on defined learning outcomes and their associated workload".<sup>3</sup> The European Commission has determined that a full year of study requires 60 ECTS credits. Since a typical year of study at American-style universities requires students to complete 30-semester credits, one credit hour was determined to be equal to 2 ECTS credits; consequently, a License in this system requires 180 ECTS credits. Another major difference between American and European style degrees is that the content matter is broken down into modules that are smaller than a semester course. Examples of the different degree programs offered at the Lebanese University and Saint Joseph University are presented below.

# **College of Education of the Lebanese University**

The two programs that lead to teaching qualifications and are offered regularly at the College of Education of the Lebanese University are the "Licence" (bachelor's) and the professional masters (Table 10.1). Admission to the professional master's requires students to have completed a Licence while its completion requires attendance for two years. Thus, completing the Licence requires 180 ECTS credits and the professional master's 300 ECTS credits. Occasionally, and based on the need of the Lebanese Ministry of Education and Higher Education, the College of Education of the Lebanese University offers the "Certificat D'aptitude Pour L'enseignement Secondaire (CAPES)" which is a secondary education certificate.<sup>4</sup> Unfortunately, the Web site of the College of Education does not present details about this certificate. Table 10.1 presents programs offered regularly at the College of Education, Lebanese University along with the number of credits is each component of the two programs.

<sup>&</sup>lt;sup>3</sup> Refer to https://ec.europa.eu/education/resources-and-tools/european-credit-transfer-and-accumu lation-system-ects\_en.

<sup>&</sup>lt;sup>4</sup> Refer to https://www.ul.edu.lb/faculte/regulations.aspx?facultyId=7&lang=3.

Licence (Elem	entar	y)											
		General pedagog	,y	Conte	ent	Teach metho	ing ods	Fieldv	vork	Ele	ctive	s	Total
Teaching of Arabic, French English, mathematics, science, and social studies (elementary)	,	68		56		36		14		6			180
Pre-school education		70		62		12		10		26 <sup>a</sup>			180
Professional M	aster	rs (Secon	dary	)									
	0	1	0		m		E. 11				-		m . 1

Table 10.1 Programs offered at the College of Education, Lebanese University

General Content Teaching Fieldwork Thesis Total Action methods research pedagogy Professional 54 30 6 21 3 6 120 Masters

<sup>a</sup> Electives in the major and free electives

**(E1** 

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# **College of Education of Saint Joseph University**

The College of Education of Saint Joseph University offers three programs that lead to teaching qualifications: the Licence d'enseignement\* (B.A. Teaching Degree, 60 credits), the Certificat D'Aptitude Pour L'Enseignement Secondaire (CAPES, 60 credits), a secondary teaching certificate, and the professional master's (120 credits) (Table 10.2). The prerequisite for the Licence d'enseignement is a three-year degree in a subject area while the prerequisite of the CAPES the Licence d'enseignement. Finally, the professional masters is a two-year degree that requires the Licence d'enseignement as a prerequisite.

# Examples of Universities that Adopted the B.A. Model

Table 10.3 presents programs offered at private Lebanese universities that have adopted the B.A. model and the number of credits in each component of the programs. The numbers of credits required to complete the B.A. programs are different. However, it is to note that, as indicated above, equivalence to the "License d'Enseignement" requires a minimum of 111 credits.

Licence d'ens	seigner	nenta	(B.A. <sup>-</sup>	Teac	hing Deg	ree)								
		Geno peda	eral Igogy	C	ontent	Teaching methods	3	Fieldw	ork		elect majo	tive in or		Fotal
Licence d'enseigneme	ent <sup>a</sup>	33		9		6		9			3		e	50
CAPES														
	Peda	igogy		Res	earch me	thods	T	Thesis		ele	ctive	ive To		al
CAPES <sup>a</sup>	9			13			5			3			60	
Professional	Master	s												
	Gener pedag	ral 30gy	Resea metho	arch ods	Thesis	Content	Te me	aching ethods	Fie	ldw	/ork	Elect in ma	ive 1jor	Total
Professional	39		24		21	9	6		9			12		120

 Table 10.2
 Programs offered at the College of Education of Saint Joseph University

<sup>a</sup> Secondary Education Certificate (Certificat D'Aptitude Pour L'Enseignement Secondaire (CAPES)

### Examples of Universities that Offer the Teaching Diploma

Table 10.4 presents examples of teaching diploma programs offered at selected Lebanese universities and the number of credits is each component of the programs. It is worth noting that the teaching diploma is recognized by the government of Lebanon as equivalent to the "License d'Enseignement" (Education License) if an individual holds the Lebanese General Secondary Certificate, has a bachelor's degree in a subject taught at the secondary level (Arabic, English, informatics, mathematics, science, and social studies), and has completed 21 credits in education (the 21 credits represent the requirements of the teaching diploma), over and above the total number required for a bachelor's degree. Similarly, recognition of the diploma is granted by the government of Lebanon as equivalent to the "License d'Enseignement" in elementary education if the person holds the Lebanese General Secondary Certificate, has completed a minimum of 111 credits, and has completed a minimum of 45 credits in the field of education (AUB University Catalogue, 2021–2022).

#### **Review of the Literature on Teacher Education in Lebanon**

Three studies investigated teacher education programs in Lebanon between 1992 and 2002 (BouJaoude, 2000; Farah-Sarkis, 1997; Freiha, 1997). However, there was an absence of research on this topic between 2003 and 2008 (BouJaoude et al., 2009). From 2009 onward, this line of research started to proliferate. Currently, with the increased need and calls for major curriculum reform in Lebanon, understanding the status of teacher preparation programs comes to the forefront. Consequently, one

master's

Table 10.3 Examp	les of B.A. programs offered at private	e Lebanese unive	rsities and the m	umber of credits i	n each component of	the programs	
Name of University	Level	General pedagogy	Teaching methods	Fieldwork	Subject matter	General education	Total
American University of Beirut	B.A. in Elementary Education	27	6	6	12	33	90
University of Balamand	B.A. in Elementary Education	33	18	3	125	25	91
Lebanese International University	B.A. in Early Childhood Education	606	15	6	1	18	66
	B.A. Teacher Education(biology-chemistry) Secondary	27	e.	6	45	18	66
Notre Dame University	B.A. in Basic Education (Grades 1–9)	54	6	6	6	397	120

<sup>&</sup>lt;sup>5</sup> Courses from outside the Department of Education.

<sup>&</sup>lt;sup>6</sup> Subject matter for Early Childhood education is integrated in pedagogy courses.

<sup>&</sup>lt;sup>7</sup> Includes 9 credits of free electives.

		-	1 0			
Name of university	Level	General pedagogy	Teaching methods	Fieldwork	Subject matter	Total
American	Elementary	12	6	3	B.A./B.Sc.	21
University of Beirut	Secondary	12	6	3	B.A./B.Sc.	21
University	Specialized	12	6	3	B.A./B.Sc.	21
of Balamand	General	12	6 <sup>8</sup>	3	B.A./B.Sc.	21
Lebanese American University	Elementary	15	6	0	B.A. in <sup>9</sup> Elem. Ed	21
Notre Dame University	General	15	6	0	B.A. in Ed	21

 
 Table 10.4
 Examples of teaching diploma programs offered at selected Lebanese universities and the number of credits is each component of the programs

of the purposes of this study was to conduct a comprehensive overview of literature about teacher preparation programs in Lebanon. Both Arabic (Shamaa.org) and English (Google Scholar, Education Research Complete, and ERIC) databases were searched, and data sources written in English and Arabic were collected and reviewed. These data sources included published research articles in peer-reviewed journals, chapters in refereed books, and paper presentations. The following sections present the findings of the reviewed studies which explored teacher preparation programs in terms of their degree requirements and content, teaching methods and assessment practices, as well as practicum/fieldwork experience. This is followed by a section on the innovations implemented in the recent past based on online interviews conducted with program directors in seven major universities. The following sections describe research on the three themes identified in the reviewed research on teacher education programs: degree requirements, teaching and assessment practices, and fieldwork experiences.

# **Degree Requirements and Content of Teacher Education Programs**

Two studies (BouJaoude & El-Mouhayar, 2010; El-Mouhayar & BouJaoude, 2012) explored teacher education programs across Lebanese private and public universities to identify their structural components (the number of years to complete a program, the number of required credit hours of education, and content, and the duration

 $<sup>^{8}</sup>$  These are two education courses selected by the student based on her or his interest.

 $<sup>^{9}</sup>$  The methods courses are taken in the B.A. in Education or the B.A. in Elementary Education.

of field-based experience) as well as their conceptual orientations (academic, practical, technological, personal, or critical/social). The sample included 15 private and public universities in Lebanon which offer teacher education programs. Data were collected from the program documents, institutional Web sites, catalogues, or brochures describing teacher preparation programs in the participating universities, as well as phone interviews with university and program administrators. Results showed that most programs adopted a combination of the academic and technological approaches to teacher preparation, without neglecting constructivism, reflective practice, thinking, and inquiry. Feiman-Nemser (1990) submits that the technological orientation "focuses attention on the knowledge and skills of teaching. The primary goal is to prepare teachers who can carry out the task of teaching with proficiency. Learning to teach involves the acquisition of principles derived from the scientific study of teaching" (p. 223) while the academic orientation is concerned with transmitting knowledge and developing understanding. These results were similar to those reported by BouJaoude (2000) in his analysis of the requirements of science teacher preparation programs in Lebanon. Furthermore, BouJaoude and El-Mouhayar (2010) found that these programs included postgraduate ones that prepare secondary teachers with a significant amount of science background and three- and four-year programs that prepare elementary classroom teachers or science/mathematics teachers with the absence of programs that prepare middle-school teachers. Finally, many programs required the completion of a thesis but lacked significant periods of field-based experience.

Several recommendations were suggested including (1) changing the structure and content of teacher preparation programs, (2) designing special programs for the preparation of lower elementary, upper elementary, and intermediate teachers in order to meet the diverse students' needs associated with each stage of the new Lebanese educational ladder, and (3) putting more emphasis on fieldwork and collaboration with schools in the preparation of teachers.

Ghaith (2013) explored teacher preparation programs in Lebanon in terms of their structure and content in addition to exploring the perceptions of teachers, school principals as well as program directors about the teacher preparation programs and the extent to which they are aligned with the objectives of the Lebanese curriculum. The sample consisted of eleven private and public universities that offer teacher preparation programs and fifty selected schools including eleven public and thirty-three private schools. Data were collected from program documents and surveys administered to program directors, student-teachers as well as school principals. The results indicated that most of the teacher preparation programs are in line with the general objectives of the Lebanese educational curricula, and they equip student-teachers with the necessary skills and competencies by providing them with a strong knowledge base including content knowledge, general knowledge, pedagogical content knowledge, and fieldwork. However, there exist some discrepancies in terms of the number of required courses from one program to another. In addition to that, the majority of the student-teachers provided positive feedback on the teaching and assessment practices that they experienced, and the majority of the school principals reported that student-teachers who are holders of a B.A. degree in education are

better prepared than those holding diplomas in education in terms of their knowledge about the content of the Lebanese curricula, and the use of active-learning strategies. However, holders of diplomas in education are better prepared in terms of their pedagogical content knowledge as well as the use of various assessment practices. The study recommended the need for national standards to admit teachers to the teaching profession, formulating program learning outcomes to evaluate teachers' performance and ensure quality teaching, and putting more emphasis on fieldwork by extending the fieldwork experience and increasing collaboration with the cooperating schools.

More specifically, Naccache (2016) investigated the requirements of Lebanese mathematics teacher preparation programs and whether there are similarities and differences among these programs. The sample consisted of nine Lebanese universities which offer mathematics teacher preparation programs. Data were collected from multiple sources including interviews with university and program administrators and mathematics teacher education professors, syllabi of courses offered in each of the programs, and institutional Web sites describing teacher preparation programs of the participating universities. The results revealed that all programs emphasize subject matter preparation and introduce students to diverse teaching techniques and strategies in the methods courses, differences exist in fieldwork requirements among the programs which were justified based on the system they follow whether English or French and the absence of university-level programs for the preparation of intermediate school mathematics teachers.

In another study, Bahous and Nabhani (2011) assessed the learning outcomes of a teacher pre-service education program at a private American-style university in Lebanon. The participants were fifty student-teachers enrolled in their senior practicum classes (last 2 years of the B.A. in education) that include observation, internship, and practice teaching classes. Data were collected from multiple sources including open-ended questionnaires, pre-and post-surveys of the fifty studentteachers as well as weekly reflective journals of the student-teachers. The results showed that training positively affects student-teachers who emphasized that the practicum courses enriched their knowledge more than the theoretical ones. During these courses, they learned and applied innovative teaching strategies, and improved in their command of languages, lesson planning, effective behavior management, and communication skills. Moreover, the reflective thinking strategies helped them analyze teaching situations based on their acquired knowledge. The study recommended using learning outcomes as a framework for student-teacher achievement, implementing more rigorous student-teacher training, and using a clear and valid statement of outcomes with explicit tasks for assessing the tasks under each outcome.

More recently, Samra (2012) examined the general university-graduation requirements for the bachelor's degree in education in nine Lebanese private American-style higher education institutions compared to requirements in American-style universities in Australia, Canada, and the USA. Results showed that, on average, general education requirements (languages, humanities, natural sciences and mathematics, arts, and information and communication technology (ICT)) represent 30.7% of the total credit hours required for graduation. These requirements, according to Samra, are similar to requirements in American, Australian, and Canadian universities.

Along the same lines, Safiyiddeen (2012) explored whether gender has been integrated into teacher education programs at eleven universities in Lebanon. The data collected included the vision, mission, and program learning outcomes of the teacher education programs in the various participating universities as well as syllabi of seven different courses grouped under four-course titles: educational psychology, measurement, instructional methodology, and practicum. Results showed that none of the teacher education programs integrates gender into its policy, mission, curriculum, or resources. Some of the suggested recommendations were incorporating gender awareness into all aspects of the institution, reconstructing curricula to mainstream gender, and planning structured instruction on gender issues.

Other studies examined the status of citizenship education in teacher preparation programs. For instance, Abdel Kader (2012) explored the extent to which Lebanese higher education institutions incorporate citizenship education as a part of the curriculum of teacher education programs. The sample consisted of ten universities that offer teacher education programs in Lebanon. Data were collected from a questionnaire administered to the representatives of the programs in the participating universities. The results indicated that only fifty-two percent of the participating universities integrate citizenship education into their teacher preparation programs within different courses, under different course titles such as sociology and political science, or in the form of extracurricular activities. It was recommended to enhance citizenship education in teacher education programs by providing pre-service teachers the opportunity to practice citizenship activities and citizenship values, and encourage communication among education departments to implement practices related to citizenship education. Using a similar approach, Khalife (2014) explored the extent to which teacher preparation programs integrate citizenship education and foster national identity. The results indicated that sectarianism continues to be emphasized in the curricula of teacher preparation programs at the expense of citizenship education.

# Teaching and Assessment Practices in Teacher Education Programs

Various teaching and assessment practices were identified in research studies on teacher education programs. Osta (2012) compared the teaching approaches and techniques implemented by 12 major universities in Lebanon, all of which offer bachelor's-level teacher preparation programs (TPPs). Data were collected by using a survey that included items about the different aspects of the teacher preparation programs in the participating universities such as the structure, admission requirements as well as nature of the field-based activities. Results indicated that a variety of student-centered and active methods were reported to be used in the programs

to various extents. For example, inquiry teaching, discussion methods, projects, and research activities were reported to be used more often than practical and handson approaches in the different programs. The study recommended that universities develop coherent curricula for their teacher preparation programs, and adopt student-centered and active teaching methods in the different courses of the teacher preparation programs.

More recently, Du et al. (2020), investigated Qatari, Chinese, and Lebanese student-teachers preferred active-learning strategies and those which they received during their teacher preparation programs. Participants were third-year studentteachers enrolled in teacher preparation programs in Qatar, Lebanon, and China; the majority of whom were females. Data were collected using the "Student Response to Instructional Practices" (StRIP) questionnaire administered to three hundred and eight participants followed by focus group interviews with thirty-eight participants. Results revealed that there was a prevalence of and preference for passive approaches of instruction and assessment that favor memorization among studentteachers because, according to them, these approaches guarantee good grades. However, results showed several discrepancies between what is recommended in the courses and students' preferences because courses emphasize the advantages of using active and learner-center teaching approaches while student-teachers prefer passive approaches. These inconsistencies may result in the reluctance of studentteachers to use learner-centered strategies in their future classrooms. Finally, results showed a prevalent traditional cultural ideology of the "authoritarian teacher" as the main source of knowledge in both the Chinese and Lebanese contexts. The study recommended developing a unified vision for good teaching to reconcile the theorypractice gap, changing perceptions toward alternative teacher roles, and realigning assessment procedures with innovative teaching methods, and use of inconsistencies revealed in the data as an incentive to improve classroom instruction not only in teacher preparation programs but also in higher education as well.

As for the assessment practices in teacher preparation programs, Shatila et al. (2012) examined the assessment practices in teacher education programs in Lebanon. The sample consisted of twelve private and public universities which offer teacher education programs. Data were collected from multiple sources including an openended questionnaire administered to education program heads of the participating universities, the syllabi of seven different courses, as well as university and institutional catalogues. The results revealed the prevalence of paper–pencil exams, the absence of indirect assessment of program outcomes, minimal opportunities for self, authentic, and formative assessment, and evidence that alternative assessments are more prevalent in practicum courses as compared to other courses. Recommendations included developing program outcomes and implementing indirect ways of assessment to evaluate these outcomes, adopting alternative assessment methods instead of paper–pencil exams, and providing more opportunities for self-assessment through the use of portfolios, reflective papers, and journal entries.

# Practicum/Fieldwork Experience in Teacher Education Programs

Two studies investigated the content of and characteristics of internships in Lebanese teacher education programs. Shatawi (2012) explored the content of the practicum courses in teacher education programs in twelve Lebanese universities that offer a B.A. degree in education. Data sources included: curriculum documents of programs, characteristics of the practicum/fieldwork component including the number of credits and their percentage, the total of required credits for a B.A. in education, the distribution of credits in the practicum course between observation and practice teaching, the evaluation criteria, the follow-up system for student-teachers by their mentors (cooperating teachers), as well as the nature of the relationship with the cooperating schools. Results revealed differences in the requirements of the practicum component among the teacher education programs in terms of the number of credits required for the practicum courses, which range between a maximum of 12 and a minimum of four credits, the number of hours required for the fieldwork experience, which range between 1275 h and less than 60 h, and the uneven distribution between observation hours and practice teaching hours with the latter being a maximum of six hours. Furthermore, results showed that the total number of classroom-observation visits by the university supervisors range between six and 30 h, and are usually done to evaluate the course learning outcomes rather than the performance of student-teachers in the fieldwork experience. The study recommends relaxing the rigid organizational structures and laving the foundations for an interactive practicum experience that contributes to successful learning opportunities for student-teachers.

A more recent study conducted by Chaaban et al. (2021) explored the characteristics of mentoring found in schools in which student teachers are placed, sometimes called cooperating schools, from the perspectives of both the cooperating teachers and student-teachers. Participants were twenty student-teachers registered for a practicum course and ten cooperating teachers in diverse school settings in Lebanon and China. Data were collected from multiple sources including weekly reflective journals of student-teachers and semi-structured interviews with both the student-teachers and the cooperating teachers at the end of the practicum experience. Results indicated that several mentoring approaches were adopted by the cooperating teachers in both the Lebanese and the Chinese contexts. While the Lebanese context revealed a dominant Laissez-faire mentoring approach characterized by a lack of meaningful interaction between the student-teachers and the cooperating teachers, the Chinese context revealed a dominant apprenticeship approach characterized by a systematic progression into the teaching profession. These results were justified based on the culturally embedded authoritarian beliefs in the Chinese context and the presence of contextual obstacles which contribute to the kind of lack of support provided by the cooperating teachers in the Lebanese context. Additionally, the Lebanese context revealed a total incompatibility in the expectations and needs of student-teachers with the dominant Laissez-faire mentoring approach. However, the Chinese context revealed compatibility in the expectations and needs of student-teachers with the dominant apprenticeship approach. The study recommended that teacher education programs should play a more active role in building connections between the university and the school context to contribute to successful mentoring experiences. Moreover, schools should become more responsible for supporting meaningful learning opportunities through the assignment of experienced and well-prepared cooperating teachers.

In summary, research on teacher education programs that explored the degree requirements and content of these programs reported discrepancies in the structural components of these programs, a combination of the academic and technological approaches to teacher preparation, and the absence of programs that prepare middleschool teachers. Moreover, none of the programs integrated gender issues while some incorporated citizenship education. Furthermore, research that investigated teaching and assessment practices adopted in the programs revealed that even though a variety of student-centered methods were used, there was a predominance of and a preference for passive approaches of teaching and assessment. Finally, research that examined the practicum (fieldwork) experience in teacher education programs reported differences in the requirements in terms of the number of credits of the practicum courses, the mentoring approaches, the number of classroom-observation visits by the university supervisors as well as the evaluation criteria. However, this research has not investigated recent innovations in these programs and the effects of the disruptions faced in teacher education due to the COVID 19 pandemic. The following paragraphs discuss a few innovations and the disruption due to COVID-19 with the hope that serious research is conducted on these topics.

# **Recent Innovations in Teacher Education**

The major innovation since the publication of the last paper regarding teacher education in Lebanon by El Mouhayar and BouJaoude (2012) is the professional master's degree that is currently offered by the Lebanese University and the University of Saint Joseph. Recently, the Department of Education at the American University of Beirut has prepared a proposal for a professional master's degree in education that is being considered by the academic bodies at the university to get the necessary approvals and start the program during fall 2022–2023. The structure of the program, presented in Table 10.5, is different from those offered in other universities in that it uses the credit system of American universities rather than the ECTS. Like the professional master's degrees at other Lebanese universities, the purpose of the master's degree at the American University of Beirut is to prepare secondary school teachers.

The bachelor's degree programs at the different universities have seen minor changes during the past decade. For instance, at the Lebanese American University, changes included submitting a proposal for approval by MEHE to change the degree from a Bachelor of Arts to a Bachelor of Science and include STEM courses in the programs. The purpose of this change was to emphasize the scientific and evidence-based nature of the field of education. In addition, at Notre Dame University the B.A. program of education was revised to include courses on sustainability

	Core pedagogical courses	Foundation courses	Teaching methods	Fieldwork	Research methods	Action research project	Total
Professional masters in math, science, and TEFL <sup>a</sup>	6	9	6	3	3	3	30

 Table 10.5
 Professional master's program offered at the Department of Education of the American University of Beirut

<sup>a</sup> Teaching of English as a foreign language

and psychology of the child with emphasis on mental health. The changes also included ensuring that technology was an essential tool in teaching and learning and thus considering a "technology across the curriculum" approach. Similarly, at the Lebanese International University, the B.A. program of education was revised to include an emphasis on STEM, Science Technology, Engineering, Art, and Mathematics (STEAM), and integrating technology in the teaching-learning process. Moreover, at the American University of Beirut, the nature of the B.A. program of education changed from a three-year program in which students were prepared to become subject matter teachers for grades 1-6 to a program that allowed for the preparation of homeroom teachers; a move that was necessary because many schools in Lebanon and the region used this approach at the elementary school level. Specifically, in its current state, the revised program includes a new area of specialization required from all undergraduate education majors, the homeroom teaching track, which has two teaching methods courses and their practicums. In the design of the revised program, senior-year students select a subject matter specialization: language arts (English/Arabic)/social studies, mathematics/science where they take 2 teaching methods courses in their selected subject matter track and their practicum. Similar to B.A. programs, teaching diploma (TD) programs have seen minor changes limited to changes in the foci of some courses. For example, if a TD is offered in a university in which new education courses were developed, then students have access to these courses as core or elective courses. The implementation of the program started during fall 2020-2021.

# **Disruptions Faced in Teacher Education Due** to the COVID-19 Pandemic

The aforementioned innovations were met by several disruptions due to the pressures exerted on universities due to the COVID-19 pandemic as well as the political and financial turmoil in Lebanon. Many of these universities either moved to partially online classes during fall 2019–2020 or fully online classes for at least three semesters (Spring 2019–2020, Fall 2020–2021, and Spring 2020–2021). Consequently, Lebanese university students spent two academic years online. Based on the first author's experience during this period, even though universities put huge efforts to continue the normal teaching-learning process, the disruptions during the first year affected negatively the nature of these programs especially that they require students to participate in fieldwork, which involves attending classes and teaching. Furthermore, university faculty members were not prepared to teach online and had to be trained on using online teaching tools on the job while students were forced to participate in online classes which were unfamiliar to them. The above problems were exacerbated by the limited access to online tools for many students, all of which harmed the quality of teacher education programs. The situation might have improved during the second year; however, there were no large-scale studies on the situation, and thus, the relative loss in learning during these two years is hard to estimate. However, the pandemic has resulted in a serious loss in the opportunity to teach and learn in many countries as demonstrated in a book entitled "Primary and secondary education during COVID-19: disruptions to educational opportunity during a pandemic" which reports on a comparative study conducted in Brazil, Chile, Finland, Japan, Mexico, Norway, Portugal, Russia, Singapore, Spain, South Africa, the UK, and USA (Reimers, 2021).

## Conclusions

The past decade has seen some attempts to enhance the quality of teacher education by using recent teacher education models mainly from the USA and Europe. The major addition to qualification degrees is the professional master's degree, which prepares secondary school teachers to become reflective educational practitioners who have strong content matter backgrounds and are capable of taking leadership roles. Those teachers will be well placed to produce useful and practical knowledge because they are prepared to conduct research and share it with other teachers. In addition, even though major changes have not happened in programs that prepare elementary school teachers, many such programs have implemented internal changes that have the potential to improve teaching quality to some extent, such as including courses on STEM, STEAM, sustainability, and homeroom teaching.

However, even though research on teacher education had identified several problems that need to be addressed, this research did not produce a comprehensive body of findings that provide the potential to reform teacher education. Several research studies focused on the structure of the programs, including this chapter; however, researchers have not analyzed the content of the programs, how this content is taught and assessed, and the quality of the graduates of the programs. These are all areas that need to be investigated to understand the conceptual orientations of the programs, the quality of the content covered in the programs, the extent to which the programs respond to the teachers' needs, the cultural relevance of the programs, and the philosophical and empirical grounding on which existing programs can be enhanced and new programs can be developed to improve student learning. What is more important, however, is how can researchers conduct research that has the potential to impact policy and practice? As emphasized by Espinet and et al., (2021), "we need to focus more on how our research benefits the participants. This involves listening more closely to their needs and exploring ways in which our research processes and findings can help address those needs" (p. 56).

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# Chapter 11 Recent Innovations and Approaches to Teacher Training in Palestine



Suheir S. Sabbah and Bushra I. Albadawi

Abstract The quality of education process depends on the teacher ability to innovate and his performance. The strengthening of the teacher's abilities leads to a great upliftment in the educational standards of the country. There is a belief that innovation approaches are needed to create this huge change in the educational level. Innovation is the ability to think in a new way to create something different from the one that exists. The teacher molds the student's mind and no doubts that the skills, which the student learn, return in the first place to the teacher's efforts. What we have mentioned states the importance of the teacher in the pedagogical process. Therefore, preparing and training the teacher academically and cognitively in order to improve his performance is an important issue. The main purpose of this chapter is to analyze the nature of innovation programs in Palestine and evaluate them, by providing a look to these programs and checking their standards. We also aim to show some new studies in this field in order to gauge their standards to recommend a new approach.

**Keywords** Innovations · Palestine · Professional development · Teacher Education Strategy · TALIS

# Introduction

Educators widely believe that teachers need opportunities and incentives for professional development to update their knowledge and skills. Ramahi (2015) examined the innovative programs and standards of professional development for Palestinian teachers. After beating out more than 8000 other teachers from all over the world for the \$1 million "World's Best Teacher" prize, a Palestinian primary school teacher who grew up in a refugee camp and teaches her students about nonviolence

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was honored on March 13, 2016. The story of Al-success Hroub's may serve as a metaphor for the history of Palestinian education. For many years, formal education in Palestine was largely controlled and administered by foreign governments. Despite this, Palestine has one of the highest rates of education participation and enrollment in the Arab world and the developing world generally. In 2014, 96.3% of Palestinians were literate, according to the Palestinian Central Bureau of Statistics (PCBS). Women comprised 50.7% of school students in 2013–2014 and 57% of university students in 2008–2009, respectively, in Palestine, which has achieved gender equality in education.

Even in the field of education, the importance of high-quality instruction cannot be overstated. Since the establishment of the formal education system, access, cost, and quality have all been issues. There have been notable attempts to define quality, which is a nebulous and difficult concept to pin down. All features or characteristics that have the ability to satisfy their need are included in the definition of quality by Vijayalakshmi (2009). It is much more difficult to pin down what constitutes good teaching. Teachers and students do not have the same relationship as service providers and customers when it comes to teaching. Teachers' education should be judged on the basis of excellence, value, and enrichment as a result of this. According to Mukerji (1968), teaching in Palestine has been a respected profession since the dawn of time. Along with passing on information and skills, the teacher was expected to act as a leader and guide for those under his care.

The Ministry of Education and Higher Education (MOEHE) recognizes the crucial role of the teacher training process and developed a Teacher Education Strategy (TES) to improve the quality of education and school effectiveness, focusing on teacher education reforms. Pre-service teacher education (PRESET), in-service teacher education (INSET), and continuous professional development (CPD) were all clearly defined by the TES and the development of the institutions that serve them were two of the TES's primary goals. TES also stressed the importance of offering program to help many teachers in the system that lack the academic and professional credentials necessary to meet the new standards for certification that were established. The regular accreditation of teacher education programs will help to better manage the system. The teaching profession will be improved through the establishment of career structures for teachers and the development of standards that govern and award certification for teachers, the enhancement of the teaching profession.

It has been a goal of various countries around the world's efforts to prepare a graduate with a reliable, scientific, and technologically oriented and sensitive to culture, in addition to his ability to continue the educational process in the community's life, which is an indicator of how educated a graduate of the faculties of education is (Al-Senussi & Youssef, 2017).

Palestine's Ministry of Education and Higher Education, established in 1994 following the Oslo Accords between Israel and the Palestinian Liberation Organization (PLO), has taken on the monumental task of creating a comprehensive educational system. Since its inception, the Ministry's policy-making has been based on the ongoing professional development of school principals supported by international

and bilateral donors. It was in 2008 that the Palestinian Ministry of Education introduced the Palestinian Education Development Strategic Plan/2008–2012 (EDSP), a reform package comprehensively designed to fill the gaps, with a focus on improving school leadership and instruction. To assist EDSP, USAID hired the US nonprofit organization AMIDEAST, which has a long history of cultural exchange and educational development in the MENA region, to pilot the Model Schools Network (MSN), a professional development program for teachers and principals.

The program began in the West Bank with 17 private schools and then grew to 40 public schools in 2009 and 12 private schools in Gaza the following year. In 2012, the program came to an end. A 340-h school-based professional development initiative, the Leadership Diploma Program, was the heart of MSN's leadership training. Monthly face-to-face sessions, learning circles, and job-embedded assignments were all part of the program. Based on principles of shared leadership and international standards aligned with research on successful schools, the program's knowledge and competences were developed. Three years after the demise of MSN, we conducted a study to see if principals' attitudes and practices as leaders of their school communities in general and as instructional leaders in particular have been influenced by the programs. An extensive survey and in-depth interviews with former MSN principals provide promising evidence of a sustained impact on the attitudes and practices of principals in three key areas: technology and community building, results-based decision-making, and instructional supervision, respectively.

# **Literature Review**

As the first step in providing guidance and direction to student teachers, teacher training programs on mentoring skills is designed to equip mentor teachers with the knowledge, skills, and directions they need to help student teachers succeed in the classroom.

An important part of a student teacher's field education course is the mentor's role in observing and evaluating the student teacher's performance throughout the practice training period and providing them with constructive feedback so that they can build their experiences throughout this time.

In the Palestinian context, the World Bank has supported the establishment of mentor teachers in training schools, as well as pre-service teacher preparation and qualification programs, by the Palestinian Ministry of Education.

Teacher preparation and qualification programs in Palestine are at the forefront of the Ministry of Education's 2008–2012 strategic plans, which demonstrates its commitment to enhancing the quality of education in Palestine by raising the bar for Palestinian teachers and institutions that train them. The Professional Standards for New Teachers (PSNT) is one of the primary means of accomplishing this.

Training programs on mentoring skills are characterized as the first step in providing a mentor teacher with the necessary knowledge, skills, and directions to support a student teacher during the period of practical training.
In the Palestinian context, the World Bank has supported the establishment of mentor teachers in training schools, as well as pre-service teacher preparation and qualification programs, by the Palestinian Ministry of Education. The Professional Standards for New Teachers (PSNT) is one of the most important tools for accomplishing this.

The seven-year project to improve teacher preparation and qualification involved various professionals, including many teachers, district supervisors, school principals, student teachers, and consultants from the University of Canterbury, who worked together to create the Palestinian Teachers Professional Development Index (PTPDI) competency framework.

The outcome of the Teacher Education Improvement Project is shown in Annex PTPDI (TEIP). As a foundation for teacher professional development and larger reform in Palestine, the project aims to impact long term on improving teacher quality and making a significant contribution for many years. Training teachers to be innovative and effective on electronic teaching methods and techniques is also emphasized in some studies as follows:

In the TALIS 2013 findings to be a good teacher, one must possess a wide range of skills and knowledge. Teacher professionalism in different educational systems is examined in this report, which focuses on teachers in lower secondary education. Teacher professionalism is examined in relation to policy-relevant outcomes such as perceived status, satisfaction with profession and school environment, or perceived self-efficacy.

In the spring of the academic year 2019/2020, a sample of 45 male and female students participated in Al-Saqry's (2020) study to determine the effectiveness of Sharkia University's Faculty of Arts and Humanities' practical education program. To ensure that all aspects of a practical education program's implementation are properly documented and implemented, the study found that the supervisor of practical education needs to have relevant field education experience.

For two semesters of the Professional Development Institute, Keiler et al. conducted a qualitative study about teachers' support for each other and their development during service and its impact on student teachers' academic growth and their social development in acquiring twenty-first-century skills. There were 14 new teachers and a student participating in it to learn about the experiences mentors have with students, trainees, and teachers. In the study, teachers' mentoring roles and responsibilities were found to be flexible during practice, but effective mentoring and support were required to help mentors learn and grow into new roles (Fig. 11.1).

UNESCO, the World Bank, and the United States Agency for International Development (USAID) are key international actors shaping the development of teachers in Palestine, according to Shinn (2012). Because of donor-funded projects and the Ministry of Education's limited capacity, it is argued that a comprehensive vision for teacher education is hindered by these factors. Palestinian teacher development is seen as a one-dimensional approach that does not adequately address all teachers' needs, especially when there is no policy to integrate and align reforms within an overall framework for large-scale improvement. Macropolicy analysis is the focus



of this case study essay, which concludes with recommendations for how Palestinian teacher education can be improved.

It provides a comprehensive review of the World Bank-supported Teacher Education Improvement Project for Grades 1–4 Class Teachers in the West Bank and Gaza (2008–2019) and has important policy implications for similar initiatives in other developing countries. Pre-service and in-service training programs were redesigned and implemented in accordance with international good practice using a professional development index of teaching competences. Innovative in that links pre-service to in-service, the index captures the continuum of professional development of a teacher. Pre-service and in-service programs, including the index, were developed by Palestinians with the assistance of consultants. As a result of this process, everyone involved gained a better grasp of the final product and a greater sense of ownership over it.

As a result of the project, the percentage of teachers who were fully qualified increased from 54% in 2011 to 92% in 2018. In 2019, five out of six university preservice programs received unconditional accreditation from international experts in their respective fields. The project's innovative approaches and potential for replication in other countries earned it the prestigious Times Higher Education Award for International Impact, 2018 in the UK. As a result of the project's reform model, World Bank-funded projects in The Gambia and Zambia are now developing strategies for systemic reform of teacher education.

Teachers are the ones who have the most direct impact on students' ability to learn, so several programs and projects to improve teaching and learning have been directed at them since 1994 by the Ministry of Education of Palestine (MOE). An analysis of the teacher education system revealed that over 80% of in-service teachers

are unqualified, do not have an educational credential, and most training courses that teachers, principals, and supervisors attend are short-term courses that have little impact on teachers' practices or attitudes toward education. UNESCO's support helped to develop the Teacher Education Strategy TES in 2008. Teachers needed to be trained for at least one academic year in order to be eligible for certification.

# **Research Purpose**

An analysis of innovation programs in Palestine for developing teachers (in service, preservation) is the main goal of this chapter; it provides a look at these programs and examines their standards. It marked a shift from a focus on access to one on quality, with the introduction of the EDSP. MOEHE also developed a Teacher Education Strategy because it recognized the importance of teacher training in determining the quality of education and school effectiveness. To this end, the MOEHE focused on reforming teacher education (TES). Pre-service teacher education (PRESET), inservice teacher education (INSET), and continuous professional development (CPD) were all clearly defined by the TES (2008). The goal of the study (Khlaif & Farid, 2018) is to determine how the implementation of smart learning projects in Palestinian public schools has affected the Palestinian educational system. Additional research has been done into the smart learning project's strengths and weaknesses, as well.

# **Research Objective**

- To show some new studies in this field in order to study their standards to recommend a new developed one about the innovations and approaches to teacher training in Palestine.
- The impact of role of teacher plays a vital role in the expansion of education, not only as the cornerstone of the educational process, must be carefully considered.
- Also the awareness of the centrality of the teacher's role in the determination of education quality and school effectiveness.
- The improvement of teacher education programs and development of the institutions that service them.
- A comprehensive reform package aims at shoring up gaps in the educational system, with a particular emphasis on improving the quality of school leadership and instruction.
- Mentoring is the process of guiding and directing a student teacher in the classroom and aims to provide the mentor teacher with the knowledge, skills, and directions necessary to provide full support to the student teacher.

- Teacher training programs aim to provide the mentor teacher with the knowledge, skills, and directions necessary to provide full support to the student teacher during the period of practical training.
- The aim is to detect the effectiveness of a "teachers' competencies based on educational qualifying program" in developing the pedagogical content knowledge (PCK) for West Bank science teachers.

## **Research Significance**

An analysis of innovation programs in Palestine for developing teachers looks at these programs and examines their standards. For many years, formal education in Palestine was largely controlled and administered by foreign governments. Despite this, Palestine has one of the highest rates of education participation and enrollment in the Arab world. Teaching in Palestine has been a respected profession since the dawn of time. By recognizing the importance of teacher training, a Teacher Education Strategy was also developed by MOEHE. Regular accreditation of teacher education programs will help to better manage the system. Based on principles of shared leadership and international standards aligned with research on successful schools, the program's knowledge and competences were developed. An extensive survey and in-depth interviews with former MSN principals provide promising evidence of a sustained impact on the attitudes and practices of principals in three key areas: technology and community building, results-based decision-making, and instructional supervision. The MOEHE developed a Teacher Education Strategy, which emphasized the importance of teacher training in determining the quality of education as well as the effectiveness of schools. This presentation aims to provide an in-depth examination of innovative programs in Palestine for the development of teachers in service or preservation.

#### **Strategy for Innovation Training Teacher**

Many innovative projects have been implemented in schools across the USA. "The main problem is not the absence of innovation in educational institutions, but the presence of too many unrelated, episodic, fragmentary, and superfluous projects" can be argued" (Fullan, 2000). This "natural" place for educational innovation is in the classroom, where a teacher or a group of teachers is able to change the teaching and learning process by altering content, attitudes, ideas, cultures, models, or the introduction of new methodologies or new resources and technologies.

Changes in educational processes, teaching methods, and outcomes are the result of innovation. And that is why it is necessary to understand the complexity of the change and what aspects must be taken into account when implementing it. As a result, the teacher must be involved and predisposed to change, as he is the one who implements any innovation process in the classroom.

A number of factors must be taken into account when looking at educational innovation, including the changing of things, which is linked to creativity and has an intentionality and tries to modify attitudes, ideas and cultures, content, models, and educational practices. There are changes that can be made by a teacher or a group of teachers to modify the learning environment, content and ways of seeing and thinking, strategies used, and the ways in which each discipline is organized and linked. Teaching–learning processes are evaluated in the classroom using a variety of tools that include new methodologies and communication methods, as well as new resources and technologies. It implies an effort to improve an educational practice it is an organized and planned effort aimed at qualitative improvement of educational processes; it entails learning for those who are acquainted with it.

#### Innovation is defined by the Ministry of Education (2017) as follows:

An educational institution's process of change, where it aims to transform the reality it encounters, depends on the level of depth and the type of changes you seek. It is a goal to engage in a continuous cycle of innovation, a spiral of changes, in order to make the student's learning process more significant, which is understood as the act of going deeper into the acquired knowledge and skills, the developed values, and the educational process in which it is linked. The educational center must be the source of innovation, and the center must manage the process of innovation itself. It is a specific and widespread shift in education that affects not only the way things are done, but also the ideas, tools, and resources themselves. Ultimately, innovation is all about people and institutions; it is not about things, forms, instruments, or even processes. Thus, teachers and students both benefit from innovation, which can range from personal satisfaction at completing a project or work to a deeper understanding or habit of self-reflection on their practice and of the students as beneficiaries of the innovation is evidenced in changes in the solidity, effectiveness, or transferability of what they have learned to new situations and contexts.

Because they believe that these innovations have a positive impact on their students' educational success, the attention to diversity, and the opening of centers to the community, teachers are concerned about the quality of their teaching. As a result, they have a significant impact on the daily life of an educational center. This includes the use of teaching and learning materials, the allocation of time to students, the assignment of tasks to them, and their relationships with the community.

# **Teacher Education Improvement Project (TEIP)**

Portuguese TEIP aims to improve educational inclusion in schools located in disadvantaged areas, which include children at risk of social exclusion. Each cluster of schools has a specific improvement plan that promotes an improvement cycle. In 1996, the Program for Priority Intervention Educational Areas was launched, with the primary goal of promoting educational inclusion in schools located in disadvantaged areas that included children "at risk of social exclusion." For this second program, which began in 2006, early school leavers (ESLs) and educational success were the primary goals. Second version objectives were reaffirmed in a third iteration in 2012, and the quality of learning outcomes was emphasized.

The program currently includes 137 school clusters, which represent 17% of all school clusters in Portugal at this time. They are encouraged to develop specific improvement plans based on an agreement between the school and school authorities, including measures, targets and evaluation, and additional resources (Fig. 11.2).

However, schools are not required to include all of the above-mentioned strategies in their improvement plans, even if they choose to do so. The goal of the program is to foster a continuous improvement cycle in each cluster. In order for the school to identify problems and critical issues, relevant data must be gathered in order to draw strategies that are aligned with the school's goals. Setting goals, indicators, and targets, as well as monitoring and self-evaluation, are all parts of strategic action. Then, based on a review of the process and the results, clusters decide if they need to alter their strategy.

Most of the clusters' planning difficulties stemmed from a lack of clarity about what should be prioritized. However, drawing a long-term strategy is difficult if the cluster does not agree on what it wants to achieve. Therefore, the selection



Fig. 11.2 Teacher education improvement

and development of leaders are critical. It is the job of school leaders to ensure that everyone in the school is working toward the same goal. Teachers must have the ability to work in teams with other professionals and members of the wider community if they are to develop the interpersonal skills necessary to do so.

There is a first and final report sent to the General Directorate of Education by the clusters participating in the TEIP program. An overview of the first term's results and progress is included in a first-semester report, as well as recommendations for future action based on those results. At the cluster and national levels, the final report serves as an important tool for analysis and decision-making, and it also serves as a basis for the evaluation of the entire program. This tool provides a comprehensive evaluation of the program's results, as well as an assessment of the program's goals, results, and processes.

# Model School Network (MSN)

Based on principles of shared leadership and international standards aligned with research on successful schools, the program's knowledge and competences were developed. Three years after the demise of MSN, we conducted a study to see if principals' attitudes and practices as instructional leaders and as leaders of their school communities have been altered as a result of MSN. MSN's shared leadership model appears to have had a long-term impact on principals' attitudes and practices in three key areas: technology and community building; results-based decision-making; and instructional supervision, according to a survey and interviews with former MSN principals. School principals' professional development is a major policy focus of the Ministry since its inception, thanks to funding from international and bilateral donors. In 2008, the Ministry of Education launched the Palestinian Education Development Strategic Plan/2008–2012 (EDSP) to address the educational system's shortcomings and improve the quality of school leadership and instruction. An American nonprofit with a long history of cultural exchange and educational development in the Middle Eastern region, AMIDEAST, was hired by USAID to pilot a teacher and principal training program called the Model Schools Network (MSN). Based on the concepts of shared leadership and international standards, as well as research on successful schools, the program's knowledge and competences were developed. Three years after the demise of MSN, we conducted a study to see if principals' attitudes and practices as instructional leaders and as leaders of their school communities have been altered as a result of MSN. MSN's shared leadership model appears to have had a long-term impact on principals' attitudes and practices in three key areas: technology and community building; results-based decision-making; and instructional supervision. A survey and interviews with previous MSN principals revealed that instructional monitoring is lacking. (Fig. 11.3).

In this study, a new model of leadership development for Palestinian school principals is described and explored. In our opinion, the findings are valuable, but there are several limitations related to data sources and research methodology. Data collection



began with school principals because of both their time and availability constraints as well as those of both researchers and study participants. Because of the MSN leadership program's focus on the school as the unit of change, the inclusion of other stakeholders was appropriate. Teachers, parents, students, and other members of the school community could have helped our study by providing us with a wide range of information.

MSN's transformative style of shared leadership and supportive instructional supervision can be evaluated using both quantitative and qualitative data. Our study did not investigate whether MSN principals had any direct impact on student achievement. The reason for this was because of the data collection from schools, districts, and the Ministry can be time consuming. If experimental design are used, it would be possible to test the impact of MSN's intervention by dividing the sample into two groups: experimental and non-experimental (i.e., experimental and non-experimental). However, due to time constraints and a lack of resources, this option was not taken.

# **Develop Vocational Teacher**

In the development of education policy, the quality of education is used as the main issue because only with a quality education will be acquired quality graduates who are capable of building themselves, their families, their communities, their nations, and their states. Government Regulation No. 19 of 2005 stipulated that formal education units must meet certain minimum standards in order to ensure quality education in accordance with the Law on National Education System. It has also been outlined

a policy to equalize educational opportunities, which not only increases educational facilities quantitatively but also qualitatively across component. Quality education at all levels of education includes the development of Vocational High School (VHS). VHS programs are designed to provide mid-level skilled workers who can assist in the development of various industrial sectors.

From supply driven to demand driven, from academic oriented to job oriented, and from school programs to dual programs, Vocational High School as part of the national education system has changed its paradigm. As Indonesian vocational education continues to grow and develop, this paradigm fits perfectly. For example, vocational education is more than just teaching students how to conduct themselves in a professional manner; it also teaches them about the unique characteristics of the educational environment that distinguish vocational education from other types of education. As a result of these characteristics, students who graduate from these schools are well prepared to enter the workforce upon graduation.

Education in secondary school that focuses on developing students' abilities to perform specific types of work is known as secondary vocational education. It is the responsibility of vocational secondary education to prepare students for employment, both in the private sector (self-employment) and in the public sector (filling job vacancies). As a result, the macrodirection of development of vocational education is based on the principle of demand-driven development. Education in secondary vocational education is necessary to produce skilled workers who are capable of operating the machinery of industry and commerce on a global scale as well as regionally and locally. For the most part, the conditions of human and natural resources in many developing countries have not yet been taken into account when developing vocational education programs.

Vocational education is not just about how well students do in the classroom; it is also about how well they do in the workplace. A vocational education curriculum should be designed to meet the specific needs and types of competence of the community, businesses, and the industry.

In order to have a successful workforce, you need people who are competent in their field of work and are able to quickly adapt to new situations. Thus, curriculum development to improve vocational education should be based on the working world's conditions and needs. Technological advancements have a direct impact on the labor market's shifting demands and the resulting changes in the number of workers required (Fig. 11.4).

Since science and technology are constantly evolving, it is imperative that the development and preparation of vocational curriculum can keep up with and anticipate these changes. It is conceivable to generate well-qualified and capable graduates for competing in the world of work if certain conditions are met adequate facilities and infrastructure, qualified educator, cooperation between schools or colleges with business/industry a conducive working environment, sufficient funding.

The term "curriculum" refers to what students are taught and trained to do in schools. An educational curriculum, as defined, is a set of plans and arrangements



Fig. 11.4 Path of improvement in vocational educational training of teachers

for guiding the implementation of learning activities in order to achieve educational objectives. Schools and teachers must be able to translate curriculum into denominator in order to make it a central part of the educational process.

# **Context Analysis**

Since 1994, Palestine's Ministry of Higher Education has struggled to implement a full-fledged educational system. This program was created in 2008 as a means of improving school administration and instruction while also addressing some of the systemic problems. There has been a shift from access to focus on quality since the introduction of the EDSP.

Pre-service teacher training and certification programs have become a major focus for the Palestinian Ministry of Education in recent years. AMIDEAST, an American nonprofit, was contracted by USAID to pilot a teacher and principal professional development program in response to the EDSP. The report focuses on teachers in lower secondary education in various educational systems and examines the differences in teacher professionalism between countries. Policy-relevant teacher outcomes like perceived status, satisfaction with the profession, and school environment are examined in this study.

Projects such as this one in the West Bank and Gaza (2008–19) have important policy implications for other developing economies that are looking to implement similar programs. As a result of the project, the percentage of teachers who were fully qualified increased from 54% in 2011 to 92% in 2018. Most in-service teachers, principals, and supervisors lack proper credentials, with over 80% of them lacking even a high school diploma or GED.

The Accreditation Quality Assurance Commission (AQAC) approved MOE's professional diplomas. Teachers needed to be trained for at least one academic year in order to be eligible for certification. Observations, interviews, and focus groups were used to collect data from 30 schools across the country. To our knowledge, no

statistically significant differences were found between the methods used by Palestinian teachers to further their professional development in the use of technological innovations (p > 0.05).

This study examined the effectiveness of PCK and TPCK for a sample of West Bank science teachers using teachers' competencies based on educational qualifying programs (TCPs). Participants in the study included 121 science teachers and eight school principals, all of whom were enrolled in the qualifying program and agreed to participate in the research. According to the findings, teachers and principals found the program to be highly effective in developing PCK and TPACK among science teachers.

Using interviews with 350 Palestinian students and 19 educators, this study found that the learning centers (LCs) strategy is effective in developing Palestinian students' life skills. Educators must be prepared for a wide range of situations by participating in programs that focus on a narrow set of objectives. It is important to take into account the appropriateness of subjects, their integration into each other, and the correlation between qualifications and experience in teacher training programs.

# Results

In 1994, Palestine's Ministry of Education was established with the goal of creating an entire educational system for the Palestinian people. Ministerial policy-making has been heavily focused on school principals' ongoing professional development. The Ministry of Education launched the Palestinian Education Development Strategic Plan/2008–2012 in 2008 with the goal of filling in the education system's holes and making it more effective. Principals in the West Bank and Gaza received professional development and mentoring from the Middle East School Network (MSN). A fullfledged educational system has been developed in Palestine since its establishment in 1994 by Palestine's Ministry of Education. Since its inception, the Ministry's policymaking has been based on ensuring that school principals receive ongoing professional development. An examination of innovative teacher development programs in Palestine provides a look at these initiatives and examines the standards that govern them. Principals' attitudes and practices appear to have been influenced by the Model Schools Network (MSN) model. Seventeen private schools in West Bank started MSN before expanding to 40 public schools in 2009.

Teachers who lack the academic and professional credentials required to meet the new certification standards have been urged to take advantage of program offered by the TES to assist them. Mentoring and mentoring were provided to student teachers as part of the Middle East Mentoring Network (MSN). A total of 40 public and 12 private schools in Gaza were added to the program in 2009, which began with 17 private schools in the West Bank. The results of an extensive survey and interviews with former MSN principals show promising evidence of a long-term impact on principals' attitudes and practices in three key areas: technology, community building,

and results-based decision-making. As part of the World Bank's support for preservice teacher training and certification, mentor teachers have been established in training schools.

With the help of the Professional Standards for New Teachers (PSNT), this can be achieved. It is expected to have a long-term impact on teacher quality in Palestine as a foundation for professional development and larger reform. Teacher trainers in other developing countries can draw policy implications from a comprehensive review of the Teacher Education Improvement Project for Grades 1–4 Class Teachers in the West Bank and Gaza (2008–2019) supported by the World Bank. Using a professional development index of teaching competences, the pre- and in-service training programs were redesigned and implemented. It has been confirmed by international experts in their respective fields that five out of six university pre-service programs received unconditional accreditation in 2019.

### Conclusion

According to the study's findings, technology is a key component of principals' leadership toolbox. Schools with technology principals are more likely to implement ICT initiatives. There is still a lot of emphasis on results-based management at these schools. Most schools employ a "control and surveillance" approach, which they reject. They are expected to help teachers improve their performance and support their growth in order to help students learn more. As a result of the project, the percentage of teachers who were fully qualified increased from 54% in 2011 to 92% in 2018. Most in-service teachers, principals, and supervisors lack proper credentials, with over 80% of them lacking even a high school diploma or GED. Teacher training programs must be tailored to meet specific goals, which will lead to better outcomes for participants' practice. An examination of innovative teacher development programs in Palestine provides a look at these initiatives and examines the standards that govern them.

Principals' attitudes and practices appear to have been influenced by the Model Schools Network (MSN) model. There are important policy implications for similar initiatives in other developing countries after reviewing the World Bank-supported Teacher Education Improvement Project for Grades 1–4 Class Teachers in the West Bank and Gaza (2008–2019). Teachers' use of technology in the classroom was more important to principals than how to manage ICT hardware and software the study found. There is still a lot of emphasis on results-based management at these schools.

# Recommendation

Palestine, regardless of its final borders, lacks natural resources and relies on its people as its primary resource. More than one million Palestinians, or more than 30% of the population, are currently enrolled full time in school or university, making

education a community investment in human resources that has ramifications beyond economics. Schools in the Gaza Strip have a high student-to-teacher ratio (up to 40). There are some schools that operate on a two-shift schedule, while others are housed in unsuitable facilities. Due to a lack of qualified teachers and facilities, the quality of education is poor. When it came to managing ICT hardware and software, principals were found to be more concerned with supporting teachers' use of technology in their classrooms than any other topic. Using the MSN model, principals appear to have a long-term impact on their attitudes and practices. Teachers' perceptions of their principals' practices and whether they are reflected in student achievement gains should be examined in future research.

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# Chapter 12 Equipping Student Teachers with Remote Teaching Competencies Through an Online Practicum: A Case Study



#### Jawaher Alghamdi

Abstract This study aimed to equip student teachers with remote teaching competencies through an online practicum. To that end, a framework was developed and implemented; the case study approach was taken, involving four faculty members and twenty-four student teachers—the latter underwent 45 h of training in five competency areas. Data were collected through one-to-one and focus group interviews, and thematic analysis (deductive and inductive approaches) conducted. The final findings indicated that student teachers should be comprehensively trained in remote teaching competencies such as developing digital learning resources, facilitating learning, communication, and assessing learning in the online environment, and managing online classrooms. They should also be given opportunities to develop these competencies in a way that includes knowledge and practice, and this should be implemented effectively during their preparation program. Finally, the participants' opinions on developing student teachers' remote teaching competencies and online practicum's pros and cons were examined and discussed.

**Keywords** Online learning · Online practicum · Improving classroom teaching · Teaching/learning strategies

# Introduction

School closure due to the COVID-19 pandemic, forcing at least 1.5 billion students worldwide to enter into an unplanned world of remote learning to support continued learning (The World Bank, 2020a, b), has brought many challenges (e.g. Doyle, 2020; McKenzie, 2020; Parsanlal, 2020; Wedenoja, 2020; Reimers & Schleicher, 2020). This calls for an urgent "Action Plan" for "accelerated training for pre-service and in-service educators on quality teaching, learning, and assessment within fully remote and mixed forms of education" (Holland et al., 2020). It has been suggested that the pandemic may provide opportunities to develop a new pedagogy for online

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teaching (Mutton, 2020; OLC, 2020; Scull et al., 2020) and to "build back better," thus improving pedagogy and technology (The World Bank, 2020a, b). The need for adopting technology and improving teachers' digital skills has been highlighted (e.g. Dhawan, 2020; Kalloo et al., 2020; Onyema et al., 2020; OLC, 2020).

In Saudi context, following the outbreak of COVID-19, after the Saudi Ministry of Education (MoE) directed a shift to online education, Saudi Arabia made efforts to understand the state of online learning, to ensure its high quality and how it can be offered in the future (OLC, 2020). The evaluation study "a COVID-19 impact study" of K-12 in Saudi Arabia context indicates: "need for increased readiness moving forward in the dimension of online teaching and learning." The study suggests making changes to support online learners following the pandemic.

Even before COVID-19 pandemic, Saudi Ministry of Education develops a broad range of new teacher competencies that enable teachers to use technology effectively (Education and Training Evaluation Commission (ETEC), 2020). This aligns with the country's new economic vision 2030 (Alghamdi & Holland, 2020). Therefore, the present study addresses this need by developing a remote teaching competency framework and training STs to develop their remote teaching competencies through a field experiment of online practicum. The findings are expected to provide an initiative to stakeholders, teacher preparation program designers and policy-makers on how teacher preparation programs are put together.

The overarching research questions were:

- What remote teaching competencies are developed through the online practicum?
- What is faculty members' and student teachers' opinion on equipping student teachers with remote teaching competencies?
- What are the pros and cons of the online practicum?

Competency is defined as "a state of being well qualified to perform an activity, task or job function" (Spector, 2001, p. 2). It refers to the skills and knowledge that enables teachers to be successful. As teachers play the most significant role in student learning success, their competencies are important.

#### **Practicum in Teacher Preparation Program**

Teacher preparation programs enable graduates to demonstrate empirically effective competencies that lead to better future learning. Teaching practicum is an important component of these programs (e.g., Clarke et al., 2014). It provides STs with handson experience in the "real world" of schools' environments (Flores, 2015, p. 211), as well as with the "experience to gain knowledge of how teachers go about the many and complex tasks involved in actual classroom practice" (McGee et al., 2001, p. 1). Thus, such real-world experience leads to the development of knowledge and skills that can be applied to future classrooms (Kitchen & Petrarca, 2016, p. 144).

Previous studies investigated the effect of training was given to STs in practicum in developing their digital competencies and how to use these competencies in the future practices (e.g. DiBella et al., 2015). It was found that this training has a value to develop STs digital competency, put the theory into practice, and enable them to use these competencies in their future career (DiBella et al., 2015; Reisoglu & Çebi, 2020).

#### **Practicum in the Time of COVID-19**

At the time of outbreak caused by COVID-19, worldwide, an alternative for practicum shifting practicum online. The alternative plan force teachers to implement a new pedagogy in teaching and learning (Eickelmann & Gerick 2020). Many papers reported their practicum experiences (e.g. Hendrith et al., 2020; Downs et al., 2020). The alternative plan in the study by Ersin et al. (2020) was to increase STs' online teaching competencies through the online practicum; they found that the online practicum helped the STs to handle the new experience and increased their confidence. They recommended that the integration of technology and materials for online courses should be part of teacher preparation programs. Burns et al. (2020) described the alternative plan in their study as "pandemic practicum" which employed a variety of teaching strategies using Zoom. They concluded that the teacher preparation program should include a course on technology (theory and practice) to ensure high-quality learning design for K-12 learners. They recommended that both practicums be in addition to the teacher preparation program.

On the other hand, studies have also reported the challenges brought by the alternative plan, including technical problems and classroom management (Ersin et al., 2020; Scull et al. cited in Mutton, 2020; la Velle, 2020; Bannink & Zwaard, 2020). For example, Bannink and Zwaard (2020) concluded that classroom management was more complex in online learning environments.

In Saudi Arabia, teacher preparation programs, as in other countries, grappled with various problems following the COVID-19 outbreak. When the Saudi government, on March 9, 2020, announced the closure of schools and universities, all students had to complete their courses online using educational tools and platforms (MEM, 2020). Even students in teaching practicum were moved to an alternative plan: they completed the (7-week) practicum via Zoom and were evaluated by their faculty members—each ST prepared one topic and explained it to their peers who posed as learners; they also had to write a reflection report on their experience in the traditional (face-to-face) practicum before the pandemic; finally, they were asked to create an online portfolio of their work samples in both traditional and online practicums (hereafter, "practicums"). In this plan, efforts were made to meet the STs' needs and ensure the quality of practicum. However, the evolution of this experience is not published yet.

## The Need for Preparing Teachers for Online Teaching

Technology is cited as a key agent for redesigning educational processes. It is considered a means enabling learners to develop a broad range of twenty-first century competencies such as digital literacy, critical thinking, teamwork, and problemsolving (Alghamdi, 2019). It directs learners to communicate, collaborate, and explore the world. Thus, learners become at the center of learning and active to develop their knowledge (Anagün, 2018; Guo, 2018). The use of technology makes learning adaptive and individualizing (Gros, 2016; Hwang, 2014). Therefore, teachers should be prepared to educate the new generations by considering them as "digital natives"—learners who do not think of technology as something separate from daily life and process information (or learn) differently from previous generations (Prensky, 2001).

Furthermore, the 4th Industrial Revolution dramatically (4IR) changes the world because of technological advancement (The World Economic Forum, 2017). The advanced technologies "emerging technologies" (Ally & Wark, 2020) including virtual reality (VR), augmented reality (AR), artificial intelligence (AI), and other technologies become a part of various fields including education. The emerging 4IR technologies will welcome online learning which will replace the demand for traditional learning (Ally & Wark, 2020; Indira et al., 2020). For new generation to have twenty-first century skills, teachers should be prepared to create high-quality learning for future learners (Kong et al., 2017). Indira et al. (2020) suggest integrating online learning in teacher preparation programs as it is the pest practices to integrate technology and using emerging technologies in blended and online worlds (Campbell & Cameron, 2016).

#### Methodology

A qualitative case study approach was conducted. Yin (2009) stated that a case study "is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context" (p. 18).

## Study Processes

This study aimed to equip STs with remote teaching competencies. The participating STs underwent 45 h of training—5 for preparation, 10 for observation, and 35 for online practicum. They began with a one-week (5 h) preparation for the training—in this, they were provided with instructions on access to the Ministry of Education platforms and basic training for using those platforms. They received their timetable and met with the school principal and teachers, followed by a two-week observation

period (10 h). They attended online classes with teachers to observe the delivery of online teaching. Two weeks after, they started the actual online practicum, for six weeks (30 h). The training was given by four trainers (Faculty members) from the Department of Curriculum and Teaching Methods (DCTM). After each training session, the STs received the feedback from the faculty members individually via Zoom.

The training was through "Madrasati" and Microsoft Teams software. Madrasati is a virtual school developed by MoE for all learners from K-12 (https://schools.mad rasati.sa/).

Furthermore, all participants in this study (STs & FMs) and learners were provided with accounts on "Madrasati" and Microsoft Teams as the two platforms were used in the schools.

The competency framework used in this study was adapted from Ally (2019) and NeC (2020). A review of literature was conducted to find a suitable competency framework to use in this study provided two. One is a framework developed by Ally (2019), who conducted a qualitative study to develop a profile for digital teachers for the future; digital teachers are those who "will move the education into the Fourth Industrial Revolution" Ally (2019). The other is a framework developed by the Saudi National eLearning Center (NeC) (2020).

Ally's (2019) competency framework has nine major areas for online teaching: including general competency, using digital technology, developing digital learning resources, remixing digital learning resources, communication, facilitating learning, pedagogical strategies, learning assessment, and personal characteristics. Each area has at least four sub-items.

The other is a framework developed by the Saudi National eLearning Center (NeC) (2020). This has three main areas: technical skills, designing skills, and management skills. Technical skills include basic computer skills, effective dealing with different learning platforms, and using different communication tools; designing skills include developing an instructional material model with performance indicators, designing instructional content taking a learner-centered approach, mastering content knowledge, selecting appropriated tools that meet learning objectives, using different teaching strategies, using teaching strategies to encourage collaborative learning, using the question strategy to encourage research, considering the educational entity's policies and regulations as well as the different learner characteristics during course design, and updating instructional materials; and management skills include teacher presence in online classes, fostering learner participation, tracking learners' progress in the course, and evaluating them fairly.

Ally (2019) framework was translated into Arabic (the main language in the college) and emailed to the Department of Curriculum and Teaching Methods (CTM) for review. On receipt of the feedback, two groups were created to review the selected items and choose the best ones for remote teaching competencies. The hyper form comprised combining items from both frameworks (Ally, 2019; NeC, 2020). The new framework has five areas. The first "Teaching in online classes" has four items on teaching and planning; the second "Developing digital learning resources" and the third "Facilitating learning in the online teaching environment" have nine each;

the fourth "Assessing learning in the online environment" has four items; and the fifth "Communication in the online environment" has four items (see Table 12.1).

#### **Participants**

The study was conducted in the first semester of the 2020–2021 academic year in the context of single-phase teacher preparation program for elementary and secondary levels (grades 7 through 12) in the eastern area of Saudi Arabia.

The participants were four members from the Department of Curriculum and Teaching Methods (DCTM). The faculty members had at least seven years of university teaching and teacher training experience. These faculty members who conducted the training and willing to be interviewed.

Twenty-four student teachers participated in this study. They belonged to different departments—English (n = 8), Mathematics Education (n = 4), Science Education (n = 8), and Computer Education (n = 4). Their aged arranged between 23 and 26 years old. The college is an all-female institution, and the faculty members and the student teachers are native Arabic speakers.

The faculty members were coded as F1, F2... and the STs as S1, S2...

# **Data Collection Tools**

Semi-structured interviews—each between 30 and 60 min—were conducted with the participants via Zoom after they completed the training.

One-to-one interviews were conducted with the faculty members (FMs). They were asked about their opinions on equipping student teachers (STs) with remote teaching competencies.

Focus group interviews (FGIs) were conducted with the STs; each group had two to four STs from the same department. They were asked three questions: skills they developed during the online practicum, their opinions on equipping STs with remote teaching competencies, and the pros and cons of the online practicum.

#### **Data Analysis**

Thematic analysis approach was used to analysis the data (Braun & Clarke, 2006) (deductive and inductive approaches). A deductive approach involves a "top-down" approach where "the researcher brings to the data a series of concepts, ideas, or topics to code and interpret the data" (Braun & Clarke, 2012). The competency framework was used as an analytical lens to determine the STs' opinions on remote teaching competence development. The data obtained from the FGIs were transcribed and

Sub-competency	Competency
Teaching in online classes	Has good mastery of content knowledge and skills Follows required criteria for lesson planning Forms correct behavioral objectives in accordance to learning objectives Objectives match students' developmental phase and students' individual needs
Developing digital learning resources	Select the appropriate digital technology to match the content and the learning outcomes Create high-quality digital learning materials Use appropriate strategies for different learning situations Use interactive strategies such as games and simulations to motivate learners Select appropriate digital learning resources to maximize learning Access appropriate open education resources to integrate into the curriculum Use varied learning resources to align with the learning outcomes Use various open education resources to meet the needs of individual learners Integrate augmented reality, virtual reality, and mixed reality to give learners a real-life experience
Facilitating learning in the online teaching environment	Respond to learners' questions at the right times Use diversity in education to meet students' individual needs Have the ability to change strategies to support learners and meet their needs Encourage creativity Be a good listener Provide immediate and appropriate feedback Motivate students to learn Encourage social interaction between learners through the cooperative learning strategy Formulate good questions when interacting with learners
Assessing leaning in the online environment	Select assessment strategies to match the learning outcomes Use rubrics to measure learners' performance Use varied formative assessment strategies Use the results of e-tests to provide individual support and counseling to learners

 Table 12.1
 Competency framework adapted from Ally (2019) and NeC (2020) on digital teachers' competencies

(continued)

Sub-competency	Competency
Communication in the online environment	Communicate at the level of the learners Use appropriate non-verbal communication when interacting with learners using two-way video and text Model good digital citizenship when using social media to communicate with learners and peers Provide e-tools to facilitate communication with the students

Table 12.1 (continued)

*Note* Adapted from "Competency Profile of the Digital and Online Teacher in Future Education" by Ally (2019) at https://doi.org/10.19173/irrodl.v20i2.4206, and the Saudi National eLearning Centre (2020) at https://nelc.gov.sa/index.php/ar/resources

examined by considering the competencies and sub-competencies specified in the framework.

The inductive approach involves a "bottom-up" approach which allowed "research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (Thomas, 2006, p. 238). Thus, the data on pros and cons and the participants' opinions on equipping STs with remote teaching competencies were categorized and identified according to the emerging themes within.

Methods of ensuring trustworthiness and credibility, such as detailed transcription, systematic plan, and coding, were employed throughout the study.

In terms of collecting data and general processing, the data were collected in Arabic and then translated into English. All interviews were transcribed as Word documents and prepared for analysis.

#### **Final Findings**

# **Participants' Opinions on the Development of Remote Teaching Competencies Through the Online Practicum**

#### **Teaching in Online Classes**

All STs participated in this study agreed that the sub-competencies under this area can be developed through an online practicum. For example, S2 said, "Yes, we have content knowledge. I can prepare a lesson plan and draw a learning objective" (FGI).

# **Developing Digital Learning Resources**

The STs confirmed that during the online practicum, they especially developed skills in selecting the appropriate digital technology to match the content and learning outcomes, creating high-quality digital learning materials, using interactive strategies such as games and simulations to motivate learners, and accessing appropriate open education resources to integrate into the curriculum.

They said they can select appropriate tools for their learners. For example, S6 said, "My technological skills are good based on what I studied in college and through this training. I learnt how to search and find good tools that would help to increase my learners' motivation, but before using them, I ensured that those were appropriate for their level and needs" (FGI).

They also confirmed that they can create digital learning resources. For example, S5 said, "I created four educational games; the game helped to increase my learners' engagement and interaction" (FGI). Furthermore, three STs agreed that they can use the advance setting in PowerPoint to make the presentation appear like a game. For example, S11 said, "I created a game-like presentation for my learners. I learnt this through this training" (FGI). Some of the STs obtained experience to create digital mind maps and infographics.

The STs said they developed skills in using different interactive teaching strategies and tools to motivate their learners. For example, S4 said, "In each class, I used different teaching strategies, including individual strategy" (FGI); S7 mentioned, "I integrated about ten tools such as Kahoot, Quizzes, and Padlet to motivate my learners, and was happy to see them engaged. So, I held a workshop for my friends [STs] on how to integrate these tools in online classes" (FGI); S9 said, "I can apply the hot seat strategy and Big Wheel strategy, besides others" (FGI).

The STs also said they obtained skills to access to appropriate open education resources and integrated these into the curriculum. For example, S7 said, "I used open resources, including games, stories, and songs" (FGI); S10 said, "I searched for open resources online; the internet has several useful ones such as YouTube and Pinterest... I used these and others for my learners" (FGI). The faculty members confirmed the same.

Only two STs from the Department of Science Education said they used augmented reality and virtual reality to give learners a real-life experience—S3 said, "I employed virtual laps and augmented reality for my learners. I learnt to use Google to search for good software" (FGI).

# Facilitating Learning in an Online Teaching Environment

Although the participants STs reported that they trained to facilitate learning in the online environment, they mentioned some challenges, especially the sub-item "encourage social interaction between learners through the cooperative learning strategy."

The STs agreed that they were unable to encourage social interaction between learners because they could not create groups and use the cooperative learning strategy. For example, S4 said, "teamwork is an important teaching strategy, but I was unable to create groups because the platforms that we used do not allow that. When I tried other platforms, such as Zoom or WhatsApp, the teacher said we were not allowed to" (FGI).

#### Assessing Learning in an Online Environment

The STs participated in this study confirmed that they developed knowledge to assess their learners in online environments and select assessment strategies to match the learning outcomes.

The STs confirmed that they made a progress to use different evaluation strategies. For example, S6 said, "I sent worksheets to my learners through Kahoot or Quizzes links" (FGI); S11 said, "I chose questions from the question bank on the platforms and sent them to the learners. Then, I asked them to post a picture of their work on my Padlet for correction" (FGI).

# Communication in an Online Environment

All participants STs confirmed that STs can communicate at learners' levels, using appropriate non-verbal communication when interacting with them. The challenges in this area were that they were disallowed from using any communication tools except the MoE-provided platforms which sometimes did not work well.

# **Participants' Opinions on Equipping Student Teachers** with Remote Teaching Competencies

All participants (FMs & STs) were asked a direct question requesting their opinion on equipping STs with remote teaching competencies. The results indicated that some of the participants agreed that STs should be prepared for remote teaching for their future career.

#### **Exceptional Circumstances**

Ten STs and all four FMs agreed that STs should be prepared for remote teaching in case of unexpected and exceptional circumstances, which prevent going to school, such as the COVID-19 pandemic and/or weather conditions. For example, S1 said, "The teacher must be prepared for all circumstances, such as COVID-19, and know how to deal with technology" (FGI); S3 said, "We should be able to use technology to teach online, considering situations like the present one, which force us to stay at home" (FGI); S8 said, "I think that on days when it rains [government weather warning restrictions], teaching can be conducted online. So, we must know how to hold online classes" (FGI). The faculty members expressed their agreement. F3 said, "STs should be prepared for remote teaching, which will benefit them in emergencies that force school closure-for example, weather conditions" (one-to-one); F4 said, "Considering the ongoing pandemic, STs need to know how to adapt to and teach in any situation; in the coming years, more viruses or even other situations are expected to emerge" (one-to-one); F1 said, "I am in the field of online education. I think STs should develop technological skills such as managing and using teaching strategies in online classes, and having sufficient knowledge to motivate learners in these, to make it possible to impart learning in case of heavy rains or other difficulties. This pandemic is expected to trigger a significant change [shift to remote teaching]; so, the education system should adapt and transform itself after this crisis" (one-to-one).

# The Ministry of Education's Plan

Two of the STs and one faculty member mentioned the importance of preparing STs for remote teaching considering the MoE's plan. S5 said, "As shown in the news, the MoE will adopt the Madrasati platform in the future; its use will not end with the pandemic" (FGI); S8 said, "I heard on the news that education in the future will be online, so teachers should be prepared for this" (FGI); F2 said, "Remote teaching has gained importance especially after the minister of education said the ministry has a plan to initiate remote teaching for all levels of education" (one-to-one).

Finally, some of the participants (FMs &STs) mentioned the importance of a teacher preparation program curriculum to develop STs' competencies in both remote and traditional teaching. Comments by the STs on this include: S1 said "the courses I took, such as Lesson Plan, were useful; I saved these lectures on my device, and refer to them even now" (FGI); S2 mentioned "the courses we studied [in college], such as Lesson Plan and Special Teaching Methods, were useful, and we are still benefiting from them" (FGI); S4 said "the skills and knowledge we were taught [in college] were useful" (FGI). All four faculty members confirmed the same. For example, F1 said, "I taught three courses before the practicum: Developing and Designing Lessons, Special Teaching Methods, and Lesson Plan. These hold great importance

in imparting teaching skills to STs. When I supervised them, they applied most of what had been taught in these courses" (one-to-one).

Thus, the participants made interesting suggestions for the teacher preparation program for both curriculum and practicum.

For curriculum.

- 1. "It is better to add one course to impart remote teaching competencies" (S4, FGI).
- 2. "...Remote teaching competencies should be integrated with traditional teaching ones in courses such as Developing and Designing Lessons" (S6, FGI).
- 3. "These [remote teaching] competencies should be apart from the courses. All STs should have these competencies. This is possible through courses such as Developing and Designing Lessons; so, when a faculty member explains, she should train them on how to apply teaching strategies virtually as well as face to face" (F4, one-to-one).
- 4. "I believe we can integrate some topics that discuss technological skills and train STs in how to apply these skills. Even during the traditional courses that include microteaching, we have used video and audio clips, but this does not prevent us from specifying some topics for remote teaching. These topics focus on the types of platforms, and how to handle them and deal with people online. This will develop new teaching skills" (F1, one-to-one).
- 5. "I think STs should be able to prepare plans, and design lessons and teaching methods in traditional and online classrooms. So, we should redesign our courses so that our students [STs] can teach face to face and virtually. They should train in how to apply teaching strategies in both traditional and online environments. We must keep pace with the MoE's plan" (F2, one-to-one).
- 6. "The teacher preparation program should be reconsidered. Though STs are equipped with traditional and online teaching skills from the courses they took in college, the problem is they took these courses separately [curriculums are disjointed]. They learnt about technology through courses such as teaching techniques, multimedia and interface design, and E-learning and distance learning, but they do not use these skills in other courses such as teaching strategies and special teaching methods. So, it is better to work as a team and integrate the courses. For example, we explain concept maps, games and quizzes, and learning cycle models in our courses, and you [as a professor in ICT] let them work on these in your courses [technology courses]" (F3, one-to-one).

For practicum:

- 1. "Traditional practicum can be for a few weeks, and the rest virtual" (S1&2, FGI).
- 2. "I prefer to have it [practicum] fifty-fifty [50% traditional and 50% virtual]" (S6, FGI).
- 3. "It is necessary [for STs] to have knowledge and skills to teach traditionally and virtually. They must know how to stand in front of learners, deal with them directly, and manage the classroom, besides acquiring other skills that are

difficult to master in the online practicum. I suggest microteaching virtually in levels 6 and 7 and the traditional practicum in level 8" (F4, one-to-one).

- 4. "If I have to visit an ST four times in the practicum, I would prefer three traditional sessions and one virtual, because the ST needs the supervisor close at hand" (F1, one-to-one).
- "If we integrate the courses, STs will be prepared for both traditional and remote teaching. Besides, we should know the software used by the MoE" (F3, one-toone).
- 6. "It is better to have the first few weeks of the practicum as observation. Then, it can be equally divided as traditional and virtual" (F2, one-to-one).

## **Pros and Cons**

The STs were asked about the pros and cons of the online practicum. As pros, they mentioned that it increased their self-confidence and allowed learners to be self-learner. The self-confidence mentioned here is twofold—in terms of learning new things, not learnt in college, such as using new platforms and tools to support learning and delivering online classrooms, and when they meet learners face to face for the first time.

The STs mentioned that they were initially anxious about how to use the MoE platforms and conduct the online classrooms, but this training was helpful in reducing this anxiety (e.g., S2 & S6). The STs confirmed that they will use the developed skills in the online practicum in their future work.

In addition, some of them confirmed that the online practicum helped them to develop self-confidence because they did not have to meet the learners face to face. For example, S1 said, "Frankly, my experience was beautiful. I was not anxious because the learners were not in front of me and the teaching was happening through the screen"; S2 said, "I found the online practicum better than the traditional one. I tend to get tensed, which may hamper my ability to teach. So, it [online practicum] provided comfort. It was an enjoyable and useful experience" (FGI).

As cons of the online practicum, the STs cited poor learners' participation in the online classroom, lack of time, and technical problems were the most difficulties faced them in the online practicum.

On learner participation, the STs said most of their learners did not participate in online classrooms. S3 said, "I enrolled in practicum before COVID-19, but I withdraw it, I did not find any differences in terms of teaching in the two practicums... The difference was in the learners' participation. In the online environment, they were less participated. Even when I called out a learner by name to answer a question or do an activity, the learner did not reply" (FGI).

Some of the STs tried to explore the reason for learner being not participate. S7 said, "I sent a survey to the learners to explore their non-participation. I focused on the skills they highlighted as important for them in the survey, which helped to

improve their participation's (FGI); S3 said, "The learners would be 10 min late for the class, but early for exams. So, I think online classes bored them" (FGI).

Regarding lack of time, the STs, particularly those from the departments of Mathematics Education, Science Education, and English, mentioned that applying teaching strategies takes more time in the online environment than in the traditional one. For example, S1 said, "because the class duration is short (40 min), I have to log in earlier. If the class was 45 min long, it would be much better" (FGI); S4 said, "My area is mathematics. When I tried to use the software to engage the learners, they took time to access it and answer the questions" (FGI); S5 said, "I agree. The problem is lack of time, especially considering that the mathematics class is 40 min long. This is insufficient because explanations take time, and so, I can use only one teaching strategy. I can employ multiple teaching strategies [in the online environment] and my learners are comfortable using technology, but this needs more time" (FGI); S9 said, "I could not use teaching strategies in every class due to lack of time. I took two classes to explain a new concept, and in these, I just used a discussion strategy; however, in the third class, in which I conducted activities, I could employ other strategies."

On technical problems, some of the STs said the internet connection was quite poor at times. For example, S3 said, "Internet connection was a problem. Sometimes, it took about 10 min to get in the class" (FGI).

#### **Discussion and Conclusion**

This study aimed to develop student teachers with remote teaching competencies. To facilitate this, a remote teaching competency framework was developed and used for the study purpose. The student teachers were trained by faculty members through an online practicum. Further, the study extents to understand faculty members (FM) FMs' and STs' opinion on equipping student teachers with remote teaching competencies and finally explores the pros and cons of the online practicum.

It can be concluded that the training was given to STs through the online practicum developed their competencies in developing digital learning resources—they also acquired skills in selecting the appropriate digital technology to match the content and learning outcomes, creating high-quality digital learning materials, using interactive strategies such as games and simulations to motivate learners, and accessing appropriate open education resources to integrate into the curriculum. The training helped them to make progress in assessing learning in the online environment to match the learning outcomes.

In terms of communication in an online environment, the STs in this study obtained knowledge and skills to use communication tools and understand the importance of social interaction in the online environment. They, however, were facing some challenges in "facilitating learning in the online teaching environment" area. They were unable to encourage social interaction between learners because they could not create groups and use a cooperative learning strategy on the MoE-provided platforms,

and they would not be allowed to use any other communication tools such as Zoom or WhatsApp with learners. This finding aligns with a study conducted in Saudi Arabia, by the Online Learning Consortium (OLC) (2020)—amid the pandemic, some of the interviewed teachers were not allowed to use communication tools such as WhatsApp with their learners (pp. 46–47). This could be a lack of school policy to allow teachers and learners to use social media. Social presence considers a crucial factor for learners' success in online learning environments (Garrison & Arbaugh, 2007; Boston et al., 2009; Kim, 2010; Richardson et al., 2016). It was suggested that the use of social media tools in an online learning environment can engage learners and facilitate the interaction between learner and teacher that may be never happened in traditional face to face settings (Kiekel et al., 2019). This suggests a need for "policies to put in place" and create safe apps and tools for educational purposes so all, teachers, learners, and parents can communicate in safe online environments.

The STs in this study experienced some problems related to lack of time, technical issues, and learner interaction. Ersin et al. (2020) had found that their participants' main problems during the online practicum were classroom management and infrastructure, concluding that solutions for such issues should be considered during the online lessons. Learner course interaction in online classes was another problem the STs in this study faced. This also was reported by other studies following the COVID-19 outbreak (e.g., Ersin et al., 2020; ETF, 2020; OLC, 2020; Rosa, 2020). The Online Learning Consortium (OLC) found that significant decrease in learners' interaction in post-COVID-19. It was suggested the need for polices and processes regard learner interaction in online classes (OLC, 2020). It is, therefore, recommended that this problem be considered by conducting research to find factors impacting learner course interaction in online classes and ways to foster their participation. The research should involve teachers, learners, and parents.

# How Should a Teacher Preparation Program Be?

The participants in this study mentioned the importance of equipping STs with remote teaching competencies. It was observed that the STs developed skills and knowledge through the online practicum. The training provided as part of this study has advantages in terms of developing remote teaching competencies in STs. They were given an opportunity to develop their competency in online practicum, which enabled them to reflect on how they can utilize these skills in their professional careers. Similarly, the training provided to STs has advantages in terms of developing their knowledge and skills and empowering them for their future careers (e.g., Burns et al., 2020; Ersin et al., 2020; Kim, 2020). Thus, the suggestion is that teacher preparation programs should be redesigned to include both traditional and online practicums. Online practicums are very important in terms of preparing online teachers as STs with mentors modeling teaching experience (Kennedy & Archambault, 2012: Dawson & Dana, 2018; Larson & Archambault, 2019). Compton (2009) suggested the use of early online field experience and an online practicum in teacher preparation program

to train STs for remote teaching. The early online field experience will happen in the early stage of teacher preparation program and before teaching experience (Compton, 2009). This will provide opportunities for STs to observe and deal with real learners and teachers in natural settings. It also was suggested that the online practicum will be at the final stage of the preparation program when STs become more proficient in online teaching skills (Compton, 2009). Online practicums improve STs' development of virtual community and social presence, a primary challenge in online teaching (Compton, 2009; Kennedy & Archambault, 2012). Thus, since universities are going digital, transforming the online practicum would be valuable for teacher preparation programs.

Furthermore, a finding of this study indicates that technology-related courses are crucial for developing STs' knowledge. Thus, the suggestion is that the theoretical and practical aspects of such courses be actively used and practiced in teacher preparation programs. It was suggested that courses that incorporated the best practices for effective online teaching can be developed and implemented (Larson & Archambault, 2019). Compton (2009) suggests training into exciting teacher preparation program courses can offer full online to develop necessary online teaching competences. Additionally, technology-related courses should be well designed using principles of online learning and provide models for good online practices. Mandatory technology foundation that can promote STs to fully integrate technology (Hegelheimer, 2006). Burns et al. (2020) have suggested that faculty members consider ways to include online instruction and online pedagogy in the teacher preparation program courses, which is a necessary step for K-12 learners.

STs in this study learn from observation, reflection, and application. Therefore, STs should be given the opportunity for observation, reflection, and experiencing (Gill et al., 2015).

Finally, the participants in this study reported a lack of learner interaction. The suggestion is to redesign teacher preparation programs using frameworks such as a Community of Inquiry framework (Garrison et al., 2000) to develop STs skills to create online community.

#### Limitations and Future Research Directions

This study was limited to one gender—female. Therefore, the sample should be widened to include the male gender. This study was also limited to only one "case." In the case study approach, the results could not be generalized instead of evaluation the current context's result and generalize them to similar situations (Yin, 2003). A further limitation is the absence of the voice of the learners. This could be a suggestion for future research. Finally, while this study collected interviews, observational data would provide an important supplement (Bryman, 2004, p. 33).

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# Chapter 13 The Current Curriculum, Instructional, and Assessment Reforms in Egypt: The Experience and Lessons Learned



**Rezk Marey and Ashraf Magd** 

**Abstract** The chapter illustrates why and how Egypt has been overhauling K-12 curriculum, instruction, and assessment since 2018. The nationwide transformations starting with KG-1 in 2018, rolling out upper grades year after year and titled Education 2.0 (EDU 2.0) system are evidenced in data and documentation-driven analysis. EDU 2.0 core shifts at written, taught, and assessed content components are outlined. The chapter details how EDU 2.0 shifts toward student-centered learning, more emphasis on skills and values than knowledge, learning that is less theoretical, but more relevant to students' lives, empowering teachers with concurrent instructional materials and professional learning, promoting digital learning, and eliminating testbased learning and instruction. The chapter also analyzes the specific restructuring of EDU 2.0 assessment system to replace the traditional culture of memorization for tests with a modernized education system focusing on student-centered learning and instruction, twenty-first century skills, and harnessing technology for deep learning. In terms of technology, the chapter sheds light on the Egyptian knowledge bank (EKB), an online library providing access to learning resources, and its role in giving a boost to utilizing technology at a large scale and targeting K-12 students and curricula. Lessons from revamping the educational system will be concluded.

**Keywords** Education 2.0 · Curriculum coherence · Life skills · Multidisciplinary · Learner-centered approach · Egypt

# EDU 2.0 Context and Urgency for Change

Egypt's Vision 2030 is currently underway aiming to implement a comprehensive curriculum reform, transform instruction, develop both teachers' professional and technical skills, and restructure assessment. The end goal is to ensure "a high-quality

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education and training system available to all, without discrimination, based on efficient, just, sustainable and flexible institutional framework, and providing the necessary skills to students and trainees to think creatively, get empowered technically and technologically in addition to contributing to the development of a proud, creative, responsible, and competitive citizen who accepts diversity and differences, and is proud of Egypt's history" (Egypt's Vision 2030, n.d.). To enact this vision, the Egyptian Ministry of Education and Technical Education (MoETE) launched a reform initiative known as Education 2.0 (EDU 2.0) in 2018 to revamp K-12 schooling all over the country. EDU 2.0 reforms started with KG1, KG2, K1 in 2018, followed by K2 in 2019, K3 in 2020, reaching K4 in 2021, and will continue with the rollout until 2030.

EDU 2.0 is set to replace the traditional culture of memorization for tests with a modernized education system focusing on student-centered instruction, higherorder thinking, skills-based learning, and mastery of technology (Oxford Business Group, 2020). The conventional focus on end-of-year high-stakes examinations led teachers to translate their instruction into teaching to the test rather than the emphasis on learning outcomes (Fahmy, Salehi-Isfahani & Dhillon, 2008, October). This culture of rote learning has been the norm for years due to teachers' lacking quality training, professional skills, and misaligned curricula. These obsolete curricula disconnect knowledge from real-life applications, miss opportunities for deep learning, inadequately prepare students to think critically, creatively, or work cooperatively (Ministry of Planning, Monitoring, and Administrative Reform in Egypt, n,d.; UNESCO, 2014; Shaaban, 2020). The urgency for current reforms has been in response to the alarming comparisons to other average quality education systems in which out of 12 schooling years, Egyptian students only learn an equivalent of 6.3 school years. Additionally, Egypt ranked 49 out of 50 countries on PIRLS 2016 in grade 4 reading, 34 out of 39 countries on TIMMS 2015 in grade 8 mathematics, and 38 out of 39 countries in grade 8 science (Alan, Teodora, & Seda, 2019).

# **Overhauling Curriculum**

For these reasons, an unprecedented political will and presidential initiatives called for a state-wide community of learning that can "think, learn and innovate" in 2014 and inaugurated the Egyptian Knowledge Bank (EKB) in 2016 as an electronic hub hosting prominent international publishers, making digital learning accessible to all Egyptian students, transforming text-based learning into digitized curricula, and supporting online learning. From 2016 till EDU 2.0 came into effect in 2018, international and national partnerships were established among Discovery Education, National Geographic Learning, Nahdet Masr, Longman Egypt, UNICEF, UNESCO, the World Bank, and experts from the MOETE Center for Curriculum and Instructional Materials Development (CCIMD) to collaboratively overhaul the Egyptian education system. All these synergic endeavors resulted in an internationally benchmarked comprehensive curriculum framework tweaked to the Egyptian context. In their consultations with CCIMD experts, Discovery Education high caliber curriculum experts anchored their reform recipes in.

- establishing clear, measurable standards that are the same in the written, taught, and assessed curricula,
- designing and executing sustainable professional learning targeted to planning for teaching, and assessing the standards, and
- implementing assessments that measure the higher-level standards (Discovery Education Egypt, n.d.).

Curriculum, instruction, and assessment coherence are research-proven to be key to effective educational reforms (Sikorski & Hammer, 2017). In Stabback's view (2016), a quality coherent curriculum is "foundational to educational reforms to achieve high-quality learning outcomes" (p. 6) since it enables students to acquire knowledge, skills, values, attitudes, and productive learning.

Internationally benchmarking EDU 2.0 standards empowers Egyptian students to know and do what other students of similar age from all around the world learn and do. These standards form the basis of assessment and are used by curriculum developers and content designers to create teaching materials used to deliver this curriculum. EDU 2.0 intended and written curriculum is restructured to ensure that the content is up to date, relevant, embedding life skills and values, keeping pace with the challenges of the twenty-first century, focusing on local and global issues, and deeply rooted in the Egyptian culture. The implemented and taught curriculum shifts to more learner-centered approaches, focusing on teaching students how to think critically, negotiate, and problem solve, and providing teachers with quality professional learning, teachers guides, and mentoring support. Assessment is also reformulated to capitalize more on formative and performance-based assessment than end-of-year high-stakes exams (Saavedra, 2019, November; UNICEF Egypt & The Abdul Latif Jameel Poverty Action Lab at the American University in Cairo, 2020; Helmy, Khourshed, Wahba, & Bary, 2020). To optimize the cascade and sustainability of these huge transformations, they happen nationwide at the same time with support and capacity-building efforts to all stakeholder officials, educators, and parents.

For EDU 2.0 curriculum to fulfill this coherence and the alignment to internationally benchmarked standards, students at an early age are exposed to areas that have been neglected for many years or taught in the silo, disconnected disciplines such as, literacy, numeracy, science, social studies, arts, PE, music, and others. Hence, EDU 2.0 curriculum is developed as a multidisciplinary content where different disciplines are grouped using a thematic approach. Teachers can teach multidisciplinary subjects cooperatively and provide students with challenges that require a multidisciplinary response. This approach is considered appropriate to KG-K3 primary stage students whose conceptual understanding and big picture perspectives fit their curious nature. For this reason, curricula are presented in themes such as "Who Am I?," "The World Around Me," "How the World Works," and "Communication" which engage students in learning different yet connected curriculum at the same time to
produce a multidisciplinary, shared project at the end of each instructional cycle (Stabback, 2016).

EDU 2.0 concurs with Stabback's (2016) findings that "syllabi in early years need to be broad and thematically oriented to reflect the ways young children learn" (p. 28). These ways follow constructivist pedagogies which are recommended to be the basis of education reforms in adopting conceptual learning, higher-order thinking, and motivating learners to construct knowledge for themselves as active learners rather than memorizing factual knowledge (National Research Council, 2005; Treagust & Duit, 2008). EDU 2.0 curriculum applies the same constructivist strategies in the form of instructional cycles where students "discover" what they know and do not know, "learn" concepts collaboratively and experientially, and finally "share" what they have learned and produced (Allard & Barman, 1994). During these instructional cycles, students:

- make connections to prior understanding and discover new ideas,
- get exposed to learning new concepts in active, immersive, and collaborative ways, and
- share what this learning means to them and how it will impact their life skills in the form of projects (Discovery Education Egypt, n.d.).

It is worth affirming that EDU 2.0 allocates separate windows for literacy and numeracy so that KG-K3 students have a solid foundation in these basic skills and at the same time students who have the passion and capabilities to excel in the multidisciplinary content can accelerate their learning. Additionally, life skills are incorporated into all the subjects that students study. However, at K4 and above grades, students study silo disciplines in an interdisciplinary approach to deepen their knowledge of subject matter and relate this knowledge to crosscutting concepts and the real world in interdisciplinary projects and performance tasks.

In such an interdisciplinary curriculum, students become increasingly responsible for their learning through subject-matter digital/text in addition to experiential learning. Furthermore, more independent exploration, and more instructional practices, such as argumentation, inquiry, using math to create knowledge in science, etc. are instrumental in the interdisciplinary syllabi. Besides, students independently and with support use experience and knowledge from multiple subjects to ask questions and solve problems in interdisciplinary projects (Discovery Education Egypt, n.d.).

#### **Integrating Skills in EDU 2.0 Curriculum**

High ranking countries such as Singapore and Estonia along with well-established entities such as OCED (2019) hold that teaching skills need to "inform and govern the experiences in schools, including how expectations about desirable behavior are communicated; how conflict and consensus-making between and among young people and adults in schools are managed; how student voice and choice matter or do not matter in schools; and how young people experience and act in their school

cultures and learning environments." (p. 7). In Singapore, the core framework of twenty-first century competencies embeds core values that shape students' beliefs, attitudes, and actions into every discipline and allocates a separate syllabus called "character and citizenship education" for teaching and assessing these values in addition to social-emotional competencies (OECD, 2019). The Ministry of Education and Research in Estonia implements Values Development Program which supports formulating common values in Estonia. This program also contributes to developing students' attitudes toward happy fulfillment in personal, family, work, and public life, along with helping students assess situations of everyday life against their values and those agreed by society, and promoting students' ability to assess the integration of the values that are considered essential into their actual behavior (OECD, 2019).

In a study conducted in Turkish elementary public schools to evaluate the impact of an intervention program on students' resilience and learning outcomes, students showcased higher resilience to negative feedback, more willingness to participate in challenging activities, and more readiness to engage in activities that positively build their skills. Enhancing students' grit and self-control increased math test scores by 0.31 standard deviations and verbal test scores by 0.13 standard deviations (Alan, Teodora, & Seda, 2019).

Life Skills and Citizenship Education (LSCE) is a compelling component in EDU 2.0 curriculum in contrast to the traditional curriculum used to have no consideration to skills or competencies (Saavedra, 2019, November; Helmy, Khourshed, Wahba, & Bary, 2020). EDU 2.0 is built on the UNICEF's Life Skills and Citizenship Education framework, which promotes twenty-first century skills such as critical thinking, problem-solving, empathy, resilience, and others. Two skills that are relevant to the Egyptian context: accountability and productivity have been added to the framework (Shaaban, 2020). The framework targets "a creative and innovative citizen who will continue to teach and learn, coexist in harmony with others, ... be an effective leader and positive follower, proud of country and heritage, ... adheres to values, ... has a competitive spirit and faith in work values and ... a promoter of the principles of entrepreneurship" (Ghanem, 2018; UNICEF MENA Regional Office, 2017). These life skills equip students with holistic and lifelong learning and assist them in making meaning out of knowledge and transferring these skills, values, and knowledge to their self-development, work, and social life (UNICEF, 2020).

The 14 life skills in EDU 2.0 follow a four-dimensional learning model:

- Learning to know: learning skills (critical thinking, creative thinking, problemsolving)
- Learning to do: employability skills (cooperation, decision-making, negotiation, productivity)
- Learning to be: personal empowerment skills (self-management, accountability, communication, resilience)
- Learning to live together: active citizenship skills (participation, empathy, respect for diversity (UNICEF, 2020).



The framework also adopts a classification of values categorized according to the four learning dimensions to achieve alliance between values and skills. Each skill has a sentimental component, and each value has a cognitive component as follows:

- Science values integrate into scientific skills
- · Work values align with work skills
- · Self-esteem values are embedded in self-skills
- Coexistence values underlie coexistence skills (Ghanem, 2018; UNICEF MENA Regional Office, 2017).

EDU 2.0 firmly pivots on the notion that promoting transformative learning and facilitating change can be brought about by value and skill-based curriculum incorporated into experiential activities, not just text-based activities (Gilmore, 2004; Mezirow & Taylor, 2011). EDU 2.0 applies Pearson, Raphael, Benson, and Madda's (2007) recommendation that students need to learn how to behave in real life rather than just learning factual knowledge. Life skills and values are incorporated into EDU 2.0 to tackle the issues and challenges facing Egypt and to implement the 2030 vision targeting a creative and innovative society. Learning outcomes and skills indicators are listed at the beginning of each EDU 2.0 multidisciplinary chapter. In their teacher guides, teachers are notified of activities that include these skills with a prescription of how these skills are taught.

#### **Evidence of Embedding Skills in EDU 2.0**

Critical and creative thinking skills are viewed as basic EDU 2.0 life skills that need to be taught concurrently with reading and writing (Fisher, 2013). Students develop critical thinking if teachers use open-ended questions (Miri, David & Uri,

2007). Wagner (2010) believes that learning is not about how much knowledge students acquire, but about learning how to think, reason, analyze, cite evidence, solve problems, and communicate effectively. Classroom interactions promote critical and reasoning skills (Anderson, Howe, Soden, Halliday & Low, 2001).



Source "Discover"—Teacher Guide—Grade 2 (MoETE, 2021, p. 130)

As proposed by EDU 2.0, OECD (2019) assumes that knowledge, skills, and values are inseparable as is the case with design thinking which requires tying knowledge, skills, attitudes, and values. This occurs because "design thinking requires not only knowledge about the problem but also social and emotional skills to develop solutions empathetic with and suitable for users, attitudes, and values to ensure that procedures and products are ethical and culturally appropriate" (OECD, 2019, p. 13).



Source "Discover"-Student Book-Grade 1 Term1 (MoETE, 2021, p. 155)

EDU 2.0 content helps students to develop their points of view leading them to be aware of unwanted attitudes, and by reflecting on or challenging these attitudes,

students develop their personal and social perspectives (Mezirow & Taylor, 2011). In addition, EDU 2.0 transformational learning moves students beyond assimilating attitudes by directly reading and writing about them, but by teaching students to act on their own, and establishing themselves as clear, independent thinkers, and decision-makers (Mezirow, 2000).

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l think the most impo the golden eagle to c	ortant body part for obtain food is the			
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Source "Discover"—Student Book—Grade 1Term1 (MoETE, 2021, p. 40)

Reflection is optimized in EDU 2.0 in the three forms posited by Mezirow and Taylor (2011) including content (what students think, learn, feel, and act), process (how students behave), and premise (why students' perception changes or not). Besides these forms, EDU 2.0 also enacts Mezirow and Taylor's (2011) two vehicles for reflection: (1) writing as a key instructional means for recording prior thoughts, sharing ideas with others, and reflecting on them when appropriate; and (2) dialogue as an essential medium through which beliefs are questioned and attitudes are eventually transformed.

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Source "Discover"-Student Book-Grade 1 Term2 (MoETE, 2021, p.127)

#### Learning and Instruction in EDU 2.0

Transformative reforms in EDU 2.0 "considerably depend on the quality of teaching and the relevance and effectiveness of the curriculum [that] enhances both good teaching and learning" (Stabback, 2016, p. 8). Learning in EDU 2.0 centers on curricular totality that strengthens relationships between students and teachers and among students (socially), how students behave (behaviorally), how students read, write, and count in real life (cognitively), and how they sympathize and empathize (affectively) (Stabback, 2016). The reason EDU 2.0 and twenty-first-century education pursue graduating intellectually balanced and ethically oriented citizens is that knowledge alone will not help students develop holistically (Acedo & Hughes, 2014; Enger & Lajimodiere, 2011). Dewey (1966) reaffirms that directly teaching beliefs, emotions, and knowledge cannot by itself result in developing positive students' attitudes and dispositions.



Source "Discover"-Student Book-Grade 2 Term1 (MoETE, 2021, p. 22)

EDU 2.0 embeds positive attitudes in day-to-day learning and instructions as an essential component and not as an add-on (Osguthorpe, 2008). For teachers to habitually plan and instill positive attitudes in students, they need to model, practice, and inculcate these attitudes systematically into their daily instruction (El-Koumy, 2019). Stances through which teachers can set best exemplary models for positive attitudes involve consolidating attitudes, such as respect for diversity and fairness by treating students squarely and showcasing equity in assessing students (Gulati & Pant, 2017). Among the attitudes that students are required to master in EDU 2.0 is the curiosity to question, passion to learn new things, desire to solicit teachers, or classmates' help whenever needed (Adderley, 2015), openness to listen to others' critiques, readiness to learn from mistakes, tendency to resolve conflicts, and resilience to solve problems (Dyke, 2006). In addition, positive dispositions and attitudes require specific instructional strategies, such as teacher-student and student–student interactions, Socratic questioning, group discussion, role-playing, storytelling, project/problem-based learning, and collaborative learning (Gulati & Pant, 2017).

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Source "Discover"-Student Book-Grade 2 Term 2 (MoETE, 2021, p. 173)

# **EDU 2.0 Learning Environment**

EDU 2.0 is grounded on the fact that authentic, personalized, and engaging learning environments ensure developing independent skills, helping students opt for their careers, and develop collaboration skills (Ketch, 2005; Motallebzadeh & Kafi, 2015). Linking learning to students' context is EDU 2.0 magic wand to enhance intrinsic motivation, and encourage problem-solving (Eyler, 2009). It also fosters true and active citizenship (Zimmerman & Weible, 2017). To promote a community-driven learning environment, EDU 2.0 enriches the curriculum with contextualized learning (Knapp, 1996); caters for appreciating differences (O'Connor, 2012); promotes positive attitudes toward nature and environment (Jagger, 2016); and advances learning outcomes, language skills and holistic health (Miller & Twum, 2017). EDU 2.0 echoes Bartosh, Ferguson, Tudor, and Taylor's (2009) findings that outdoor learning environments help students achieve higher than those who commit to theoretical class learning in reading, writing, and critical thinking. Classroom environments are employed in EDU 2.0 to improve students' attitudes, find answers to open-ended questions, and demolish memorization (Herreid, 2005; Moravcsik, 1981).



Source "Discover"-Teacher Guide-Grade 1 Term 1 (MoETE, 2021, p. 172)

#### Assessment in EDU 2.0

Education 2.0 transformations in written and taught curriculum necessitated a shift in approaching and applying assessment. The focus for EDU 2.0 new assessments concentrates more on giving students opportunities to provide or demonstrate evidence of their learning than memorizing and recalling knowledge. Parents can monitor progress toward curriculum learning objectives throughout the year and teachers collect and analyze data to adjust instruction and capture evidence of student success. From KG through K3, there are no formal assessments other than multidisciplinary projects and formative assessment opportunities. Formative assessment gives teachers and students opportunities to make better-founded, informed decisions about the next steps for teaching and learning. Multidisciplinary projects are conducted at the end of each chapter or instructional cycle: "Discover, Learn, Share" to evidence students' individual, pair, and group work in alignment with the content they learn, plus the quality of their performance, and life skills. These three descriptors are assessed by student self and teacher rubrics. During the stages of projects, students also peer assess each other's work. For K4 and upper grades, assessment is mainly formative, with occasional low-stakes summative assessments including performance, project, and problem-based opportunities (Discovery Education Egypt, n.d.).



Source "Discover"—Student Guide—Grade 2 Term 1 (MoETE, 2021, p.26)

EDU 2.0 practically applies Stabback's (2016) insights that "there is a wide array of learning areas where learning outcomes are not easily quantified such as in ethics, civic responsibility, global citizenship, emotional maturity, moral character, tolerance of diversity, curiosity, cooperation, ... That these are not easily assessed does not minimize the importance of their inclusion in the curriculum" (p. 31). In EDU 2.0, life skills cannot be paper-pencil tested but evidenced through obvious actions and/or interactions as showcased in performance-based practices and projects (Shum & Crick, 2012, April). Examples for identifying students' attitudes for curiosity can be demonstrated in and measured by students' competence to raise questions and investigate problems (Shum & Crick, 2012, April). Similarly, social attitudes such as respecting diversity can be displayed in and judged by students' interactions with others (Osguthorpe, 2008). Life skills can be measured by using a rubric during classroom interactions (Huber-Warring & Warring, 2006). Diez (2006) suggests explicit rubric that can assess students' respect for others during group discussions. As reflected in Diez'z (2006) rubric, EDU 2.0 employs a rubric where nonverbal attention to other students' speech, reinforcing others' speech, building on others' speech, and arguing against others' ideas without attacking them can be metrics for measuring respect or disrespect.

#### **Teachers' Roles**

Transforming EDU 2.0 written and assessed curriculum requires teachers to shift their roles from dominating lesson delivery to enabling student-centered learning, promoting productive learning, and fostering teacher-student and student-student talks. These same roles are outlined by Stabback (2016) who claims that teachers can turn classroom instruction into positive behavior through encouraging discussions, inquiry, curiosity, student self/peer reflection, metacognitive thinking, peer interactions, sympathy, and respect. EDU 2.0 teachers also migrate from focusing on helping students retrieve factual knowledge into engaging students and leading them to master deep learning by drawing on their prior knowledge, inquiring about their conceptual knowledge, and transferring this knowledge into real-life applications. Moreover, EDU 2.0 teachers assist students in developing their metacognitive skills, taking responsibility for their learning, formatively self/peer assessing their progress, and demonstrating evidence of their learning (National Research Council, 2005).

At the elementary school level, teachers need to monitor students' learning, analyze the obtained data, and determine whether students can move on to the next topics or need enrichment or remediation (Jin et al., 2019). Teachers also provide effective feedback about what students do and do not understand, and what they need to do to make progress (Stabback, 2016).



Rubric Assessment (for teacher use)

Source "Discover"-Teacher Guide-Grade 2 Term 1 (MoETE, 2021, p.64)

#### Learners' Roles

EDU 2.0 echoes Stabback's (2016) conclusions that a good quality curriculum encourages students to socially participate and contribute to class peer and group work, cognitively demonstrate academic understanding, and behaviorally enact positive conduct, and effectively show feelings toward their peers. In the same vein, EDU 2.0 students are expected to recognize what, why, and how they learn and "be open to new ideas; be curious and willing to ask questions; raise what they take for granted to the level of conscious critical scrutiny; engage in assessing their own and other students' learning; as well as learning the content and associated skills, understand how they accomplished this and try to become better learners; and support and respect other students' efforts to learn" (Stabback, 2016, p. 33).

EDU 2.0 learning-centered approach with its implications of considering students' preconceptions and prior knowledge is regarded by a big body of research as metrics of the effectiveness of learning and instruction. Therefore, the National Research Council (2005) first asserts that instruction needs to prioritize students' ideas, knowledge, skills, and attitudes as basic foundations that scaffold any future learning. Second, learning outcomes, why and how they are taught in addition to manageable challenges can maintain students' engagement. Third, both students and teachers need to look for visible evidence of learning and instruction as the focal point of formative assessment, followed by constructive feedback moving learning forward. According to multiple studies, self/peer assessment improves students' metacognition and achievements. Fourth, students are encouraged to develop a sense of community, be inquirers, respect their peers, take risks, etc.

🥘 A RE	VIEW OF MY PICTURE BOOK
Anot	her student will review the pages you created for the re book. You will review their work in their student book.
Reviewer	's Name
Picture B	ook Title
+	1 like your pages because
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	One thing I would like to see is
P	

Source "Discover"-Teacher Guide-Grade 2 Term 2 (MoETE, 2021, p. 85)

## **EDU 2.0 Instructional Materials**

Memorizing facts in informational textbooks neither ensures preparing students for lifelong learning nor does it guarantee students' holistic growth (Stabback, 2016). In contrast, EDU 2.0 students are provided with workbooks where they can compare, classify, analyze, synthesize, evaluate, or co-create knowledge orally and in writing. They are also provided with digital content aligned to their print content.

EDU 2.0 equips teachers with the necessary tools to lead, assist and motivate students to achieve their full potential (Stabback, 2016). These tools encompass highly prescriptive teacher guides that present relevant advice on ways of delivering and differentiating the content to meet all learners' needs, modalities, and contexts. These teacher guides arm teachers with necessary tolls for planning instruction, assessment, and life-like learning applications. The detailed instructional prescription in EDU 2.0 teacher guides provides teachers with opportunities that ensure accessibility and equity among all students all over Egypt. Stabback (2016) elaborates on the notion that EDU 2.0 prescriptive teacher guides "generally provide more structure for underqualified and less experienced teachers and allow more space for the inclusion of locally relevant topics" (p. 27).

#### **EDU 2.0 Professional Development**

For EDU 2.0 efforts to successfully pay off, professional development opportunities contribute to sustainably enhancing teachers' performance, professional learning, and applying the new written and assessed curriculum (Jin, Mikeska, Hokayem, & Mavronikolas, 2019). Teachers and supervisors are exposed to an intensive professional learning journey that helps them make learning and instruction more effective (Stabback, 2016).

The alignment between EDU 2.0 curriculum and professional development (PD) is apparent in the way EDU 2.0 PD follows the same structure of the multidisciplinary approach, i.e., "Discover, Learn, and Share" as set out in the EDU 2.0 textbook teacher guides. PD applies this approach throughout immersive PD activities, tasks, and model lessons designed to:

- encourage teachers to explore their prior understanding and discover new ideas by having them actively engaged with content,
- expose teachers to new concepts in hands-on, immersive, and collaborative ways, and
- enable teachers to express what this learning means to them and how it will impact their practice (Discovery Education Egypt, n.d.).

This approach is spiral in design and helps teachers revisit EDU 2.0 key elements multiple times throughout their PD journey, get exposed to progressive PD complexity, and reinforce their theoretical understanding and practical application.

Teachers are also enabled via this PD journey to:

- engage—in implementing EDU 2.0 approaches, techniques, and content in their classrooms,
- embed—EDU 2.0 practices confidently and fluently, and
- enhance—their decisions about how to personalize EDU 2.0 to suit learners' needs. (Discovery Education Egypt, n.d.).

Since supervisors are among the main pillars of EDU 2.0 vision and philosophy, they are exposed to experiential, hands-on, and simulated coaching practices during teachers' PD program. This PD targets supervisors' new roles such as, observing classes where EDU 2.0 is applied, reporting best teaching, and learning practices, documenting evidence of learning, giving constructive feedback that can move learning and teaching forward, highlighting successes, helping teachers sort out challenges, filling schools' online visit reports, supporting teachers, and building a collegial relationship with them. Examples for how supervisors support teachers in their professional learning journey include applying the Goal, Reality, Options, and Way forward (GROW) model, offering positive feedback, modeling best practices and instruction, building teachers' capacity to reflect on their practices, arranging Teach Meet or PD sessions, sharing digital resources with teachers, creating extra channels for continuous support such as, WhatsApp, Facebook, YouTube, and online learning communities and arranging meetings with parents (Marey, Hesham, Magdd, & Toprak, 2020).

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# **Chapter 14 Constructing Teacher Education for Inclusion in Bahrain**



#### Hanin Bukamal

**Abstract** The chapter begins by providing an overview of the current state of teacher education in Bahrain, with particular emphasis on the role of the sole teacher education provider in the country which is Bahrain Teachers College (BTC). BTC, established in 2008, has the major role for transforming the education system of the country. The chapter will then attempt to pave the way forward for teacher education in Bahrain to keep up with international emphasis on inclusive education and response to student diversity. Recommendations are provided for the provision of inclusive teacher education should incorporate an inclusive philosophy and an integrated approach to inclusion where inclusive practices are embedded across the curriculum. That includes a focus on developing: inclusive pedagogy and teaching practices for pre-service teachers, effective co-teaching practices between mainstream teachers and collaborators, and differentiated instruction.

**Keywords** Inclusive education • Inclusive practice • Inclusive pedagogy • Co-teaching • Differentiated instruction

# Introduction

The Kingdom of Bahrain is an archipelago consisting of 33 islands and is located in the Arabian Gulf. It is an independent Islamic Arab State, and the majority of its population are Muslims. The official language is Arabic, and English is used widely and taught in all schools (MOE, 2007). Bahrain's total population is about 1.5 million with 55% being non-Bahrainis (eGovernment, 2019). The year 2008 in Bahrain was the highlight of a number of educational reform initiatives to transform the Kingdom from an oil-based economy to a knowledge-based economy. The reform initiated with the national document of "Vision of 2030", which one of its pillars seeks to empower Bahrainis to fulfill their ambitions through an education system of quality. One of

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the main points discussed in the Vision of 2030 is the focus on teacher education and training, and a standards-based education system that undergoes regular reviews (Board, 2008). As part of the reform, the education sector witnessed a substantial shift and was enhanced with the establishment of three institutions and they were: the Bahrain Qualifications Authority (BQA) to oversee all matters related to the quality of education in Bahrain, Bahrain Polytechnic to provide a skilled workforce, and Bahrain Teachers College for highly qualified teachers.

Bahrain Teachers College (BTC), a college at the University of Bahrain, is the sole teacher education entity in the country. It was established with the purpose of training in-service teachers and school leaders. The other main purpose of the college was to attract applicants to the teaching profession to join the new initial teacher education program for primary education, in order to improve the overall quality of education in the country (College, 2019). BTC currently offers the following programs: foundation year program, initial teacher education program for primary school teachers, teacher leadership program and continuing professional development program, post-graduate diploma in education, and school leadership program.

The bachelor's program was specifically designed to cater for teaching shortages in public primary education in the following subject areas: English, Arabic and Islamic studies, mathematics, and science education for cycle two education; along with cycle one education (College, 2019). Cycle one education includes primary school levels from year 1–3, while cycle two education includes year 4–6. The initial teacher education program currently only prepares student-teachers to work in public primary education, while in-service professional development programs cater for teachers from all levels of public education. Since BTC's establishment, over 1000 students have graduated from the bachelors program and started teaching in Bahrain primary public schools. BTC works alongside the Ministry of Education (MOE) to facilitate practicum placements and requirements for pre-service teachers during the completion of their degree, as well as immediately employ student-teachers in primary schools upon their graduation. This partnership with the MOE enables BTC students to apply their pedagogical knowledge in practice during the completion of the degree, thus enhancing the relevance of the program.

In 1994, the United Nations Salamanca Statement called for the integration of children with special educational needs (SEN) in mainstream schooling (UNESCO, 1994). This initiated the global pursuit of inclusive education which lead to substantial changes to education systems worldwide, and included a reconsideration of teacher education. One of the main arguments in teacher education literature is whether teacher education programs sufficiently prepare teachers to teach in inclusive class-rooms. There is generally a lack of guidance for teachers on inclusive teaching practices to implement in inclusive settings. Black-Hawkins (2012) examined over 600 teacher education for inclusion textbooks and found that only 17 of them provide support in the area of teaching practices for inclusive education. Booth, Nes, and Strømstad (2003) suggest that suitable teacher education is an essential requirement for the success of inclusion. As for the state of teacher education for inclusion regionally, Amr (2011) identifies a gap in teacher education for inclusion in the Arab

world. Keller et al. (2016) believe that teacher education in Bahrain should address the variety of special educational needs for student-teachers to feel better prepared to teach children of exceptionalities. While Al-Manabri et al. (2013) suggest that teacher education should encompass teaching methods that respond to student diversity. Given the disconnect between inclusion policy and guidance for teacher education for inclusion, this chapter will first critically discuss some of the common issues in the literature of teacher education for inclusion. The chapter will then examine the current state of teacher education for inclusion in Bahrain, along with an overall evaluation of the state of inclusion in the country. This is then followed by suggestions to transform teacher education for inclusion in Bahrain which includes incorporating the following practices in the initial teacher education program: inclusive pedagogy, co-teaching, and differentiated instruction.

#### **Common Controversies in Teacher Education for Inclusion**

Teacher education for inclusion is largely shaped by how inclusive education is defined. The different conceptualizations and understandings of inclusive education constitute one of the main barriers to developing inclusive teacher education, particularly the problematic perspective of inclusion as mainly related to teaching students with special educational needs (Booth et al., 2003; Symeonidou, 2017). Teacher education for inclusion is frequently associated with training on SEN (Avramidis & Kalyva, 2007). Teachers often assume they are not qualified enough to teach students with SEN (Jordan et al., 2009), and that they require more specialized training (Alborz et al., 2013; Avramidis et al., 2002; Forlin, Sharma, & Loreman, 2007).

Avramidis and Kalyva (2007) consider that teachers' restricted familiarity with SEN is considered as one of the main barriers to the successful implementation of inclusive education, therefore indicating that teachers' knowledge on special needs is integral to inclusion. According to Avramidis et al. (2000b), SEN training improves teacher confidence to teach in inclusive settings. Some specific recommendations provided in the literature on how to improve initial teacher preparation for inclusion include exposing pre-service teachers to teaching students with SEN as early as possible during their school placement. This is done in order for student-teachers to feel more competent in teaching mixed-ability groups, and accumulate a broad experience in dealing with the teaching and management challenges in an inclusive classroom (Avramidis et al., 2000a).

While some SEN training is valuable and authors call for more special education courses to be incorporated into initial teacher education programs (Pappas et al., 2018), special education is no longer the main concern of inclusive education (Wilde & Avramidis, 2011). Florian (2009) argues that if teacher education for inclusion comprises a range of different qualifications, then teachers are going to assume they are unable to teach a particular group of children because they are not qualified to do so. This explains why teachers continuously indicate their need for more professional development to accommodate for students with SEN in their classrooms. Student-teachers should thus focus less on acquiring new skills and techniques to teach an inclusive classroom, and instead utilize their existing knowledge to implement inclusion (Florian & Linklater, 2010). This is emphasized by Florian and Rouse (2009) who argue that teacher education should focus on general teaching and learning strategies rather than issues of SEN and inclusion. Particularly given that the main purpose of initial teacher education is to equip teachers with the skills necessary that enhance the learning and participation of all their students.

Forlin (2010b) additionally advocates that a single approach to teachers' education is no longer feasible as classroom environments are becoming more diverse. Forlin (2010b) emphasizes the need for teacher education programs to be flexible in response to political and societal changes that respond to the increased diversity in the student population and their associated educational needs. Kumar and Hamer (2012) similarly encourage initial teacher education programs to highlight classroom issues of diversity and students of minority, so as to prepare pre-service teachers to deal with cultural diversity in the student population and the associated practices. They also believe that multicultural education should be an essential element of teacher education. This consequently helps student-teachers become more aware of any personally held prejudices and stereotypes.

Given the issues identified above, inclusive teacher education should therefore be more broadly based on the following principles: the rejection of deterministic beliefs of ability (Florian, 2008); embracing the responsibility for teaching all students with their variety of needs (Forlin, 2010a); specialists are sought and consulted in support of the general teacher's efforts, rather than referring some learners to a specialist (Florian et al., 2010); and to be inclusive of all learners regardless of perceived ability or disability (Florian et al., 2010). This approach encourages teachers to assume responsibility for all learners in their classrooms, rather than believe that the education of some learners is the responsibility of their specialized colleagues (Jordan et al., 2009).

#### **Inclusive Teacher Education in Bahrain**

It is crucial to examine the current state of teacher education for inclusion in Bahrain to determine national progress with inclusion policy. The Bahrain Teachers College (BTC) Bachelors in Education program, in its present format, offers one inclusive education course at the second year where students are introduced to learning disabilities, learning styles, multicultural education, and physical disabilities they are likely to encounter in the classroom. The course also offers in-depth information on differentiated instruction and lesson planning for an inclusive classroom. Given that BTC was only established in 2008, all other teachers in the public school system who have not been educated at BTC, probably have not received formal general teacher training or training specifically for inclusive teaching.

When it comes to initial teacher education, it is essential that support for inclusion is not provided in a "stand-alone course", as that could indicate to teachers that inclusion is an addition to regular teaching and can only implemented with the support of specialists (Forlin, 2010a). Instead, a more integrated or content-infused approach to inclusion is implemented across the program, in order for pre-service teachers to assume responsibility for all learners in the classroom (Donnelly & Watkins, 2011; Forlin, 2010a, 2010b). Teacher education should therefore prepare pre-service teachers to holistically cater for their diverse learners (Sokal & Sharma, 2017).

In BTC's initial teacher education four-year program, student-teachers spend four weeks in school placements every year for the first three years of the program. In the fourth year, pre-service teachers spend the entire second semester in school placements, which comprises half of the school year. Symeonidou (2017) stipulates that partnerships between teacher education colleges and schools that facilitate practicum placements are identified as one of the main requirements for teacher education for inclusion. Regular school placements are encouraged as student-teachers are introduced to issues they will encounter in the profession with the guidance of a more experienced teacher. In BTC, all school placements are arranged by the college itself and that is facilitated by the BTC and MOE partnership. This guarantees that all student-teachers have school placements in every year of the program, which is conducive to inclusive practice.

There is also currently no undergraduate special education program offered at the teachers' college to prepare special education teachers (SETs) to teach in mainstream settings. Most special education teachers currently employed in mainstream schools have thus been educated in the college of education preceding BTC, which has closed down prior to BTCs establishment. While a SET role is not a pre-requisite to inclusive teaching, clearer expectations must be made for the role of existing SETs in mainstream schools. This is explored more thoroughly in the next section.

In order to further examine the state of teacher education for inclusion in Bahrain, it is vital to also investigate current national inclusive education practices, as well as research on inclusive education in Bahrain. Inclusion policy remains at the initial stages in the Gulf Cooperation Council (GCC) countries including Bahrain, despite the Education for All (EFA) push to implement inclusive education decades ago (Crabtree & Williams, 2013). There is no publicly available information found regarding the commencement and mechanism of inclusion and integration in Bahrain. According to Weber (2012), the commencement of inclusion in Bahrain can be traced back to 2005. Based on common knowledge of the education system in Bahrain, integration tracks or resource rooms in Bahrain's mainstream schools include tracks for giftedness, autism, learning difficulties, speech difficulties, Down's syndrome and intellectual disabilities. As well as supportive classes for students with Arabic as a second language. These integration tracks or remedial classes function in some schools depending on the availability of resources (MOE, 2007). Students who are allocated to one of these tracks are pulled out of the mainstream class for some or all of the school day depending on recommendations of the SET. Students with special educational needs (SEN) in mainstream education are either fully integrated in mainstream classes, partially integrated, or not integrated and spend almost the entire school day in the resource room with the SET. The extent of collaboration between the SET and the mainstream education teacher is unspecified.

As for research on inclusion in Bahrain, it is extremely lacking, and only two studies were found that explore teacher attitudes toward inclusion. AlMahdi and Bukamal (2019) investigate BTC's pre-service teacher attitudes toward inclusion through the 'Sentiments, Attitudes, and Concerns about Inclusive Education Scale' (SACIE). The pre-service teachers reveal positive attitudes toward inclusive education and students with SEN. However, the majority of the participants indicate some hesitation toward the inclusion of children with aggressive behavior and those who require the assistance of communicative technologies in mainstream classes. Still, the majority of the pre-service teachers support the inclusion of children whose first language is not Arabic, students with learning difficulties, and students who require more instruction from a SET in a resource room. The student-teachers additionally reveal some concerns with inclusion such as the lack of support staff, increased workload, insufficient resources, and issues relating to the mainstream students' acceptance of students with SEN.

Another study by Bukamal (2018) explores in-service teachers' attitudes, perceptions and challenges with inclusive education. The majority of the participants believe that students with more severe SEN either should not be included in the mainstream class, or should only be included if they are accompanied by a SET. The in-service teachers did not feel capable of teaching this group of learners. Despite some hesitation with the concept of inclusion and teachers' belief in the increased workload associated with it, the teachers still acknowledge the social benefits of inclusion for children with SEN as well as the right of all students for equal education and opportunities. According to the participating teachers, appropriate support from the Ministry of Education, school leadership, parents, and SETs should ease the implementation of inclusion. Although studies on inclusive education in Bahrain are limited, they are slightly indicative of the state of inclusion in the country. It seems that some of the common issues are: having a unified meaning of inclusion, policy and guidance for implementation, support from the appropriate sources, and the unavailability of SETs. Based on these identified gaps, the next section explores ways to transform teacher education for inclusion in Bahrain to enhance the implementation of inclusive education policy.

#### **Transforming Teacher Education for Inclusion in Bahrain**

In accordance with the broad principles of inclusive practice and the integrated inclusive teacher education approach discussed earlier, the remainder of the chapter will delve into specific teaching practices and values to be integrated into Bahrain's initial teacher education program. The integration of these practices will enable pre-service teachers to teach in inclusive settings and address the needs of their diverse learners. These practices should thus be incorporated across the entire curriculum to support the implementation of inclusive education in schools, and they include: inclusive pedagogy, co-teaching, and differentiated instruction.

#### **Inclusive Pedagogy**

Initial teacher education in Bahrain should reflect the values of the Inclusive Pedagogical Approach (IPA) as a form of enacting inclusion. What differentiates inclusive pedagogy from other inclusive practices in that it is holistic by incorporating the thinking and philosophy behind teaching choices, as well as the actions of teaching (Florian & Black-Hawkins, 2011). Inclusive pedagogy is concerned with improving the learning experiences of not only students with SEN, but also learners of diverse ethnic backgrounds, students of poverty, and students who are non-native speakers of the main language in their schooling context (Pantić & Florian, 2015). According to Florian and Black-Hawkins (2011, pp. 818–819) the main principles of inclusive pedagogy focus on teaching practices that enhance the participation of all learners through:

- 1. shifting the focus from one that is concerned with only those individuals who have been identified as having 'additional needs' to the learning of all children in the community of the classroom.
- 2. rejecting deterministic beliefs about ability as being fixed and the associated idea that the presence of some will hold back the progress of others.
- 3. seeing difficulties in learning as professional challenges for teachers, rather than deficits in learners, that encourage the development of new ways of working.

Inclusive pedagogy requires a shift in teachers' mindset of separating their planning for teaching for most and some learners, toward planning for everybody in the classroom (Florian, 2012). Planning in response to diverse student needs is done with the purpose of improving the participation and achievement of all learners (Florian, 2019), through planning for variations within the same learning activity (Spratt & Florian, 2014). Student diversity is seen as valuable and conducive to the learning environment, and an opportunity for learners to collaborate and acquire knowledge through their interactions with their peers (Florian & Rouse, 2009; Florian & Spratt, 2013). One of the pillars of inclusive pedagogy is that it rejects deterministic beliefs of ability and 'bell curve thinking'. Deterministic beliefs of ability are usually enacted through ability groupings and overt differentiation where limitations to student progress are imposed (Florian & Spratt, 2013). In the IPA, teachers extend the learning opportunities to all learners in the classroom and believe in all students' ability to improve their achievement (Florian, 2012). Mixed-ability grouping (Spratt & Florian, 2015) and differentiation by outcome can be a good representation of inclusive pedagogy as students are allowed variations in their expressions and outcomes of learning (Spratt & Florian, 2014).

Spratt and Florian's (2015) findings reveal that maintaining students' dignity is essential to inclusive pedagogy and the participating teacher refers to it as students' "status". This relates to the teacher refraining from identifying certain students as having additional needs in front of their peers either through the language the teacher uses or through certain teaching practices. Although some learners do require additional support within the IPA, it is essential that support is provided without identifying these learners as being different (Florian & Spratt, 2013). In IPA, teachers

forgo the assumption that they need specialist knowledge or are not qualified enough to teach certain pupils and accept that differences in student abilities are more due to a range of individual differences than categorial differences (Florian, 2008). Instead, teachers should embrace all learners and feel responsible for their learning progress rather than externalize it to other factors (Spratt & Florian, 2014).

IPA does not advocate for separate classrooms for students with SEN where such practice identifies the students who have additional needs (Spratt & Florian, 2015). Specialist knowledge should still be acquired from specialists in ways that will not identify some learners with lower ability (Spratt & Florian, 2014). That is not to say IPA ignores the existence of students with SEN and denies them specialist support, but rather to support these learners in ways that would not separate them from their peers (Black-Hawkins & Florian, 2012). For instance, specialist support can be provided for the teacher who then creates the learning experience for the student, rather than simply referring the student with SEN to the SET (Florian & Rouse, 2009). The connection between the teacher and the SET is essential as one of the main values of inclusive pedagogy is teachers' willingness to work with other adults in order to enhance their teaching provision in the classroom as well as continuously seek professional development opportunities (Florian, 2014). Inclusive pedagogy is not concerned with a particular teaching method, but how it is used in the classroom to be inclusive of all learners (Black-Hawkins & Florian, 2012; Florian & Black-Hawkins, 2011). Inclusive pedagogy endorses the use of whole class strategies, where all learners are engaged in the same classroom activities without a prior determination of student ability by the teacher (Black-Hawkins & Florian, 2012; Spratt & Florian, 2015).

Given this theory emerged and is implemented through actual school practices and teacher training (Florian, 2012), it is the most relevant and realistic view of inclusive practice available in the literature and offers the most descriptive way of implementing inclusive education. IPA's emphasis on "not the strategy, but its use" allows practitioners to scrutinize all their practices and evaluate their inclusive or exclusive tendencies. At BTC, reflection is an essential component in all its programs, but it needs to be utilized in a way that is conducive to inclusive education. BTC can further emphasize the development of student-teachers' reflective skills to enable them to analyze teaching situations and select a more inclusive approach as consistent with IPA principles. To further contextualize this approach to the Bahraini context, student-teachers must seek ways to engage non-Arabic speakers and enhance the inclusion of learners from SEN who come from integration streams. That should be preceded by the gradual elimination of special needs classrooms within mainstream schools, and the full inclusion of these learners in mainstream classrooms. As for the role of the SET in the mainstream classroom and the way in which specialist support is sought, this is specifically discussed next.

#### Co-Teaching

According to Kugelmass (2001), co-teaching usually takes places in the mainstream classroom between the lead teacher and a collaborator to enhance the participation of students with SEN in an inclusive classroom. The co-teaching partnership between a mainstream education teacher (MET) and a SET in an inclusive classroom is considered another form of inclusive practice (Mamas & Avramidis, 2013; Strogilos & Tragoulia, 2013), as well as co-teaching with teaching assistants (TAs) (Ainscow et al., 1999). The TA role does not exist within the Bahraini education system; therefore, this section will focus on co-teaching practices between the MET and SET.

One of the main benefits of co-teaching practice identified by Strogilos and Avramidis (2016) is that students with SEN have a higher level of engagement in co-teaching sessions than other sessions. Other benefits to the students with SEN is that they appear to be more focused when receiving one-to-one support from the SET, show improved behavior (Strogilos & Avramidis, 2016), and enhanced learner collaboration (Scruggs et al., 2016). Teachers also acknowledge the value of co-teaching in contributing to their professional development, as well as overall improved learning opportunities for the students (Väyrynen & Paksuniemi, 2018). Establishing a collaborative rapport between the MET and the SET is vital for successful attempts at curriculum alteration (Strogilos et al., 2012, 2018). Saloviita and Schaffus (2016) articulate that the more support available, the more likely METs will have positive attitudes toward inclusion. In another study, an effective co-teaching partnership provides the opportunity for the teachers to discuss the student performance and progress and reflect on that together. Co-teachers have a very positive outlook on co-teaching and view it as an opportunity for learning from each other's experiences and differences, and identify a great benefit to having a partner who assumes equal responsibility of their classroom and learners (Väyrynen & Paksuniemi, 2018).

One of the main aspects of co-teaching critically discussed in the literature is the form of collaboration between the MET and SET, and the distribution of teaching responsibilities in the mainstream class. Forlin (2010b) discusses different types of co-teaching which are: team teaching; station teaching; parallel teaching; alternative teaching; and one teaching, one assisting. First, team teaching is where both teachers equally engage in lesson planning and teaching. Second, station teaching is where learning stations are created and student groups are rotated in the stations, while each teacher rotates around the stations to guide learners. Third, parallel teaching is where each teacher handles the responsibility of teaching different groups of students simultaneously. Fourth, alternative teaching is when the MET teaches the majority of the students while the SET teaches students with SEN in resource rooms. Lastly, one teaching and one assisting model of co-teaching is where the MET teaches the mainstream class and the SET is available to teach students with SEN within the mainstream class setting. The participating SETs in a study by Strogilos et al. (2012) describe their model of co-teaching as consisting of an informal discussion with the MET and that only a minority of METs schedule time for planning with the

SETs. This appears to be an unsystematic method of regulating co-teaching arrangements. Teachers' misperception of co-teaching arrangements is also common. While teachers initially indicate they follow a team-teaching model. Further exploration reveals that SETs mainly assist the METs by teaching students with SEN (Strogilos et al., 2012).

In other studies, researchers explore particular co-teaching arrangements from the perspectives of the co-teachers. It appears that the predominant co-teaching model is the MET allocating the main responsibility of the education of pupils with SEN to the SET. A study by Vlachou et al. (2015) reveals that METs do not regard SETs as equal specialized partners and view their role as a more assisting role. In particular, METs believe the role of the SET is to unburden METs from teaching students with SEN. Strogilos and Tragoulia (2013) and Scruggs et al. (2016) also find that the "leader and assistant" model is primarily used. The MET assumes the role of a traditional leader and plans the learning activities, while the SET is responsible for teaching students with SEN as well as assist a few other students who require help either in or out of class. In fact, scheduled lesson planning time for METs and SETs mostly consists of the METs lesson plan and what the SET is required to do to modify this plan for students with SEN (Strogilos et al., 2016).

Although it is useful to introduce the different co-teaching variations, it is unclear what are the effects of each variation on students' engagement and attainment, and which variation is the most beneficial to the inclusion of all students. This is an essential distinction to make in order to inform teacher education programs of the required training for METs and collaborators on the co-teaching form that best supports inclusion. Aligning co-teaching practices to the IPA will likely reveal the more inclusive co-teaching arrangement. For instance, team teaching and station teaching are more consistent with inclusive practice as students with lower ability are not identified in front of their peers, and both teachers assume full responsibility for all learners in the classroom. Other co-teaching arrangements are more likely to lead to the exclusion of some learners particularly if they are predominantly taught by a SET either in or outside of the mainstream classroom.

Fyssa et al. (2014) articulate that co-teaching should be promoted through the school's approach to inclusion, suggesting that co-teaching practices will succeed if they exist within a supportive environment. METs and SETs generally require more planning time and report inconsistencies in shared planning time which prevents the implementation of co-teaching (Scruggs et al., 2016; Strogilos & Tragoulia, 2013; Strogilos et al., 2016). It is recommended that teachers are allocated a co-planning slot in their schedule (Scruggs et al., 2016; Strogilos & Tragoulia, 2013), which is facilitated through a supportive school climate (Strogilos et al., 2012). In fact, the collaboration between METs and support teachers generally aids in moving the school's inclusion agenda forward. In this study, teachers meet once a month to plan together for all the co-teaching lessons within that period (Strogilos, 2012). This is found in an earlier study where teachers collaborate in teaching activities, selection of materials, and lesson planning due to the equal commitment to inclusive education in the school climate (Kugelmass, 2001). The school can further support co-teaching

practices by providing specific training on the art of co-teaching (Forlin, 2010b; Scruggs et al., 2016).

For BTC to emphasize the practice of co-teaching and working collaboratively with other teachers, co-teaching can be incorporated across the initial teacher education curriculum. During practicum placements, BTC student-teachers should be paired with pre-service teachers as an experienced mentor in inclusion who views inclusive education positively (Donnelly & Watkins, 2011). This is of particular importance as Elmahdi and Fawzi (2019) report that BTC students feel unprepared to work collaboratively with other school staff. To further emphasize co-teaching practices, BTC can incorporate this element in the school leadership program where school leaders are encouraged to outline co-teaching practices to be implemented across the school with sufficient support from the school administration. Since BTC does not currently offer a SET program, co-teaching practices can even be encouraged among METs who can co-teach with their peers, as well as co-teaching between an experienced MET and a pre-service teacher during their school placements.

#### **Differentiated Instruction**

Differentiation or Differentiated Instruction (DI) is one of the prevalent practices discussed in the literature to implement inclusive education in the classroom, and it generally consists of educating individuals or groups of students differently (Armstrong et al., 2010). Students therefore work at different levels within the same task which is applied to the entire classroom. That is done to increase student participation and improve individual student academic attainment (Corbett, 2001b). A differentiated classroom prepares for the growing diversity of schools' population and allows all student groups the opportunity for academic progression and attainment (Tomlinson, 2005b), which is consistent with inclusive values.

According to Tomlinson (2014), in a differentiated classroom, the teacher adjusts the content, process and product in response to the students' "readiness, interest, and learning profiles". Student interest refers to learning topics that promote student motivation, which is also referred to as "interest-based differentiation". The process of differentiation begins by first, modifying the content and that requires the identification of the learning outcomes and the materials available for the students in order to achieve those outcomes. Second, amending the process requires learning activities that enable learners to interact with and construct knowledge and understanding. Third, adapting the product includes allowing for a variety of responses and expressions of students' knowledge. The differentiated classroom is student-centered where students learn to work independently and attain individual and collective objectives. The differentiated classroom is also flexible in its arrangements, sometimes the student groups are organized by the teacher or by the students themselves (Santangelo & Tomlinson, 2012; Tomlinson, 2014).

Tomlinson et al. (2003) further explain that effective differentiation is "proactive" where the teacher predicts students' needs prior to the lesson, rather than makes adjustments based on students' responses during the lesson. Differentiation involves a variety of instructional methods including whole class instruction, group learning, and individual support, along with regular formative assessment to inform instruction (Tomlinson, 2005a). Group learning is best conducted within mixed-ability collaborative learning groups (Tomlinson et al., 2003). Tomlinson (2016) additionally proposes a continuum of differentiated instruction where it includes instances of "microdifferentiation" and "macrodifferentiation". Microdifferentiation, or individualization is more reactive than proactive. This can happen by giving more challenging work for some learners during the lesson once they complete their initial task, or evaluating students' work differently based on their perceived ability. Macrodifferentiation is more proactive where assessments are pre-planned and content, process and product are all varied.

The definition of differentiated instruction is inconsistent across the literature (Strogilos et al., 2017) and is largely influenced by the view of the school of this practice which naturally imposes variations in its practice in response to the different settings (Armstrong et al., 2010). The more traditional view of differentiation originates from the SEN framework. It examines students' individual needs and attempts to respond to students' learning styles, yet restricts student creativity and interactions with other students (Corbett, 2001a). Strogilos et al. (2017) refer to this as DI as a child deficit-oriented activity where the use of DI is mainly to support students with SEN. This view is problematic and reveals assumptions of teachers' perceptions of how students with SEN should be taught, and equally problematic assumptions about the absence of differentiation for the remaining students without SEN. The alternative view is DI as a context-oriented approach where the curriculum is differentiated for all learners and not only learners with SEN. This is accompanied with the use of many instructional adaptations and modifications and denotes a change in the instructional methods (Corbett, 2001a; Strogilos et al., 2017). DI is more inclusive when it serves students with lower abilities as well as students with higher abilities (Nind et al., 2005).

Despite DI being an inclusive practice, it can still be implemented in a way that subjects some learners to exclusion. One of the main contentions in the area of differentiation is that it somehow reveals assumptions of an entity view of ability and intelligence (Nind et al., 2005). That can occur when some students are given modifications of activities that restrict their advancement. Ainscow (1999) agrees and indicates that DI can limit expectations of student performance, which can then hinder student achievement. Yet, others believe that the influence of DI on student attainment is unknown (Roy et al., 2013). It is also unclear whether students are allowed a choice of differentiated tasks or if the task with a certain ability level is given to them by the teacher, as that could largely determine the inclusivity of this method. Brennan et al. (2019) and Finkelstein et al. (2019) discuss differentiation through choice where students are allowed to make their own decision on which level of task they should attempt. This then leads to positive outcomes with students such as increased motivation and engagement and improved academic attainment.

Offering the choice is less likely to limit student's ability and achievement, and therefore rejects deterministic views of ability.

Another source of contention is that despite teacher efforts to differentiate the curriculum, national examinations remain undifferentiated (Nilholm & Alm, 2010). Which is perhaps why Schwab et al. (2019) express that teachers should focus less on differentiation and more on planning engaging activities for learners. Other issues with DI include: lack of direction for teachers on the extent and degree of differentiation (Strogilos et al., 2018), that METs forgo their responsibility for differentiation as they believe it is the duty of the SET (Strogilos et al., 2017), the time consuming aspect of differentiating the curriculum, and lack of teacher training in the area (Strogilos, 2012).

The promising potential of differentiated instruction in meeting the needs of diverse learners therefore needs to be solidified as pertaining to: expectations from METs and the support team for its implementation, ways of implementation, and students' choice of task. While DI is implemented within the stand-alone inclusion course at BTC, that practice needs to be incorporated consistently across the entire curriculum and particularly evaluated during school placements. When aligning differentiated instruction to the principles of inclusive pedagogy, it is best implemented within mixed-ability student groups where students are allowed to select the task level appropriate to their perceived ability and preference. It is also optimum as a context-oriented approach where all learners in the classroom are given the same learning opportunities and range of tasks.

## Conclusion

This chapter identified a number of existing substantial steps in constructing teacher education for inclusion in Bahrain. This includes the stand-alone inclusion course in the initial teacher education program, partnerships with schools that facilitate practicum placements, and a generally national direction towards inclusion. To further develop and sustain inclusive practice, it is recommended that the official documentation on national inclusion policy to be published and clearly communicated with schools and BTC. It is also more productive to move toward an integrated approach to teacher education for inclusion where inclusive practices are infused across the entire curriculum and expectations for inclusion are outlined in all courses.

This chapter recommended the integration of three main practices in Bahrain's teacher education curriculum which include: inclusive pedagogy, co-teaching, and differentiated instruction. It is important to note that practices and recommendations should always be responsive to the context. While co-teaching is recommended in this chapter as one of the main inclusive teaching practices, that option is not consistently available in Bahrain. SET availability largely varies from school to school, and when a SET is available the opportunity for co-teaching will be scarce especially if there is only one SET in the school to collaborate with all its teachers. More SETs will however be available if BTC introduces a program for special education teachers,

which also comprises a substantial collaborative element with METs. It is unclear why the SET program was eliminated and not re-established. It might be the nation's way of committing to inclusive education and encouraging the closure of special schools.

Without a thorough investigation on the state of inclusion in the country and the associated practices, the transformation of teacher education for inclusion will be lacking. The shortage of research and publicly available educational policies on inclusion contribute to this hindrance. A unified view of inclusive education in the national policy and school practices is necessary, and a movement away from the SEN perspective of inclusion. It is vital to note that a four-year teacher education program will not prepare teachers for all the issues they will encounter in their entire teaching careers. Initial teacher education programs should therefore encompass the core values of inclusive teaching and equip student-teachers with the necessary reflective skills that will then enable them to tackle and analyze teaching dilemmas. While this chapter predominantly focused on teacher education for inclusion at a preservice level, inclusive practices can also be incorporated in other programs at BTC such as the in-service professional development program as well as school leadership program on how to create an inclusive school culture. Initial teacher education in Bahrain should also move beyond only preparing teachers from the primary level of schooling and embrace intermediate and secondary levels to implement inclusion in the entirety of the educational system.

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# Chapter 15 Teacher Education in Kuwait: Exploring the Impact of Pedagogical Content Knowledge on Novice Teachers' Perceptions of Their Ability to Teach



# Munirah Khalid AlAjmi, Yasser F. Hendawy Al-Mahdy (b), and Mahmoud Mohamed Emam

Abstract Teacher education (TE) has been a significantly controversial topic across the globe. In Kuwait, there has been vigorous discussions and debate by policymakers on the effectiveness of teacher education. Although the Kuwaiti government has recently paid considerable attention to the teaching profession and TE, there is hardly a murmur about novice teachers' perceptions of their pedagogical content knowledge (PCK) as a result of their preparation program. This chapter is intended to review TEPs in Kuwait and provide empirical investigation of novice teachers' perceived PCK impact on their teaching ability as a result of the PCK courses and field experiences exposure during their preparation program. Teacher candidates from the two main education preparation providers in Kuwait were invited to complete a survey asking them to rate their perceived PCK based on the core educational courses in their teacher education programs (TEPs). Results revealed the need to enhance TEPs in Kuwait as novice teacher expressed a need to more training to enhance their teaching ability. The results also highlighted a gap between (theory and practice) as there is a disconnection between some of what the program curricula provide and what teachers were faced with in real context.

Keywords Teacher Education  $\cdot$  Pedagogical content knowledge  $\cdot$  Schools  $\cdot$  Kuwait

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#### Introduction

Teacher education (TE) has been a significantly controversial topic across the globe. More specifically, teacher education programs (TEPs) in Kuwait have been under scrutiny by the society amid heightened concerns that the low quality of teachers and teaching in school may have a deleterious impact on students' learning outcomes (Saloviita & Tolvanen, 2017; Diez, 2010). The discourse on TE in Kuwait has concurred with recent governmental efforts and initiatives to implement significant changes in the educational system, including curricula reform, innovative school leadership policies, teacher professional development, and enhancement of school accountability.

There is recent research evidence that effective teaching is conducive to student achievement and that the quality of teacher is the most influential factor on improving student learning outcomes (Chetty et al., 2013; Metzler & Woessmann, 2012). Pedagogical content knowledge (PCK) is a term coined by Sulman (1987) to refer to teachers' understanding, knowledge, skills, and dispositions of delivering the subject matter to students in a teaching situation (Sulman & Richert, 1987). There is a consensus among scholars that PCK is comprised of four main components: (a) Knowledge of learners' understanding, (b) skills and strategies of instruction, (c) applying an innovative curriculum, and (d) teachers' beliefs and values about the professional responsibilities associated with the teaching profession (Kleickmann et al., 2013; Millican, 2012; Raiber & Teachout, 2014). The primary source for building prospective teachers' PCK is the teacher education program. Several researchers agree that teacher candidates acquire knowledge of subject matter through content specific courses and acquire PCK through core courses in the program that focus on pedagogy and how to teacher the subject matter. Additionally, beliefs and values about the subject matter can guide teachers' pedagogical strategies and instructional methods. Further, PCK was argued to be a definitive indicator of teacher effectiveness competencies through which good teachers can be distinguished from poor teachers (Cowell, 2011; Millican, 2016).

Understandably, then, there has been vigorous discussions and debate by policymakers in Kuwait on the effectiveness of teacher education. Although the Kuwaiti government has recently paid considerable attention to the teaching profession and TEPs, there is hardly a murmur about novice teachers' perceptions of their pedagogical content knowledge (PCK) as a result of their preparation program. This chapter, therefore, is intended to review TEPs in Kuwait and provide empirical investigation of novice teachers' perceived PCK impact on their teaching ability as a result of the PCK courses and field experiences exposure during their preparation program. In the sections to follow, we will begin by describing the context of education in Kuwait, examine programs offered by teacher education providers (EPPs), and finally present the results of an empirical inquiry of novice teachers' perception PCK impact on their teaching ability.
### **Current Context of Education in Kuwait**

Kuwait has recently witnessed rising concerns over the quality of education particularly as the youth population is growing very fast. Unsurprisingly, the Kuwait government has commenced an inspection and a review process of educational policy with the intention to revitalize the education system including both basic and higher education. There is currently as strong conviction by policy- and decision-makers that the provision of high quality education should be essentially placed at the heart of the New Kuwait 2035 governmental strategy in order to enhance economic development and diversification. Education has been announced as one of the seven policy pillars which form the Kuwait National Development Plan. In particular, the New Kuwait 2035 plan a series of educational initiatives such as the National Learning Standards Project whose goal is to establish innovative standards of teaching and learning in school and reshape the student assessment practices. In addition, the government prioritizes building public-private partnership to encourage private sector participation in the education sector. The government expenditure on education has increased steadily in the last decade due to the rising demand on education resulting from a fast growing population and the families interest in spending more of their high income on obtaining high quality education.

The educational system structure in Kuwait includes preschool, elementary, and secondary school levels which are regulated and supervised by the Ministry of Education. Basic education in Kuwait is compulsory until the secondary level. In 2016, the government established the Supreme Education Council (SEC) as independent government institution which is chaired by the Minister of education and aims to guide strategic planning of education policy. Additionally, the Ministry of Education set up the National Centre for Education Development to conduct school inspections, administer international assessments, and review teaching and learning practices in schools. Currently, the number of schools in Kuwait ranges from 1700 to 1800 public, private, and foreign schools.

Public schools implement the national curriculum and employ teaching staff from different Arabic and foreign countries although the government has recently begun to replace expatriate teachers with Kuwaiti indigenous teachers as part of the Kuwaitization policies. Public schools are available only for Kuwaiti children. However, some non-Kuwaiti children may join public schools if the parent was working a governmental sector such as hospitals, schools, and universities. Education in elementary schools is based on gender-segregation, i.e., females or males. Private schools offer international curriculum and are, therefore, the first choice to expatriate families residing in Kuwait. The higher education system in Kuwait consists of public and private institutions that are overseen by the Ministry of Higher Education. The Kuwait University if the first and only public higher education institution in the country. There are 12 private universities in Kuwait. In 1982, Kuwait established the Public Authority for Applied Education and Training (PAAET) whose stated mission is to "to provide the Kuwaiti society with professional technical workforce to enhance

social and economic development." The PAAET oversees five colleges including the College of Basic Education and 8 institutes.

Based on searching scientific databases of authentic publishers (e.g., Taylor and Francis, Elsevier, Sage Publications, Springer, Emeralds, Wiley), there is limited literature of published research on teacher education in Kuwait. There are a few studies published in Arabic that examined the effectiveness of teacher education program from the perspective of teacher educators. In particular, two studies (Al-Shamry, 2017; Al-Qalaf, 2009) reported that teacher education programs in Kuwait are not aligned with international standards such as those developed by the Council for the Accreditation of Educator Preparation (CAEP), or with exemplary models of teacher effectiveness (Campbell et al., 2012; Cheng & Tsui, 1999). Further, the inadequate quality of teachers was contributed back to similar inadequate admission criteria in teacher education program and the weak program structure which focuses more on theoretical knowledge and provides less field experiences. Recently, teacher education programs in Kuwait have been criticized for providing fragmented courses that prioritizes theoretical knowledge over practical pedagogical skills. The Arabic literature on teacher effectiveness in Kuwait was based on exploring the perspectives of college faculty members and educational experts on the program content and structure. Overall, the emerging evidence from such literature affirms the dissatisfaction with program input and outcomes. Scholar argues that novice teachers who begin their teaching become more confident if they felt that their teaching program provided them with exemplary field experiences and pedagogical content knowledge, built their teaching competence, developed their sense of lifelong learning and professional growth, and stimulated their sense of belonging to the teaching career (Yauan et al., 2017). Teacher candidates may judge their teaching ability on how much specialized knowledge, PCK, and field experiences they acquired during their teacher education program (Clark et al., 2015).

With the expansion of public schools in Kuwait due to urban growth, the number of students who have been admitted to teacher education programs has increased substantially over the last decade. Further, Kuwait has recently reviewed educational policies and school reform initiatives placing the teacher as the cornerstone of improving school effectiveness. The Kuwaiti government's goal is to have a teaching workforce that can contribute to the Kuwaiti vision 2035. Teachers graduating from teacher education program are expected to possess the knowledge, skills, and dispositions that can influence students and contribute significantly to their learning outcomes.

Effective teaching "requires teachers with deep and flexible knowledge of the subject matter who understand how to represent ideas in powerful ways can organize a productive learning process for students who start with different levels and kinds of prior knowledge, assess how and what students are learning, and adapt instruction to different learning approaches" (Darling-Hammond, 2000, p. 167). Thus, it is the role of teacher education programs to foster the development of effective teaching

by strengthening its knowledge base and connecting theory to practice (Darling-Hammond, 2000).

#### **Education Preparation Providers in Kuwait**

The state of Kuwait is an Arabic-speaking country located in the Arabic Peninsula in Western Asia. It is also located in a region known as the Arab Gulf Region. Arabic-speaking countries in the Gulf Region formed the Gulf Cooperation Council which includes Saudi Arabia, Kuwait, Qatar, Oman, Bahrain, and the United Arab Emirates. Geographically, Kuwait borders Iraq to the North, Saudi Arabia to the south. It has a population of almost 4.5 million inhabitants of which almost 1.5 million are indigenous Kuwaiti citizens, while the remaining 3 million are foreign expatriates from different countries. Kuwait is an Emirate with a political system that is based on autocracy. The Emir (the crown prince) is the head of the state and is always chosen from the ruling family. The cabinet or the council of Ministers runs the state and is monitored by an elected parliament with limited authority. Kuwait is a wealthy country with the highest currency across the globe. Its economy is based on petroleum investments and oil reserves. Kuwait's population is ranked among the top 20 countries with the largest GDP per capita. The dominating religion in Kuwait is Islam, and the culture and social norms are informed by the Islamic religious beliefs. Kuwait is based on a collective culture with tribes contributing to the social texture of the society.

Kuwait relies on two main education preparation providers (EPPs) to equip schools with highly skills teachers who are capable of fulfilling the demands of the current and future goals of the educational system. Currently, there are two EPPs in in Kuwait: (1) the College of Education at Kuwait University, (2) The College of Basic Education runs under the supervision of the Public Authority for Applied Education and Training (PAAET). After issuing the Amiri decree in 1966 (No. 29/1966), Kuwait University was established to prepare the young generation to assume their future responsibility of building the Kuwaiti society. The vision and mission of Kuwait University was to provide the society with graduates equipped with the necessary knowledge and skills that are required in a competitive global society. Over the years, Kuwait University has witnessed a significant expansion in the number of students pursuing post-secondary degrees. The university has expanded to include sixteen colleges offering various majors and undergraduate and graduate programs. One of the first and foremost programs offered by the Kuwait University was the teacher education program in 1966 with only 418 students and 31 faculty working within the College of Sciences and Arts. In 1980, the College of Education was officially established and was separated from the College of Sciences and Arts. Since then, it became the only provider of initial teacher preparation program the country. It also offers post-graduate diploma program in education and graduate master's programs. Currently, the college of education has four departments: (1) Department of Curriculum and Instruction, (2) Department of Educational Administration and Planning, (3) Department of Educational Psychology, and (4) Department of Foundations of Education. Overall, the Kuwait University College of Education offers the following initial teacher preparation undergraduate programs:

- Kindergarten teachers.
- Elementary education (Islamic studies; Arabic language; English language; science and math; and social studies).
- Intermediate and secondary education (Islamic studies, Arabic language; English language; philosophy; psychology; sociological studies; geography; history; math; physics; chemistry; biology; and geology).

The second education preparation provider is the college of basic education which runs under the supervision of the Public Authority for Applied Education and Training (PAAET). Established in 1982, the college stated vision was to a center of excellence and leadership in teacher preparation in the country. Similarly, the college stated mission has been to provide the country with distinguished cadres who are capable of presenting quality education services in schools. The college set up an array of objectives to achieve. These include: (1) preparing qualified teachers who can lead change and reform in schools, (2) providing the labor market with highly skilled teachers who possess exemplary professional competencies, (3) developing programs for teachers and other school professionals that are aligned with international standards, and (4) providing teacher candidates with enriches field experiences and research skills. Contrary to the Kuwait University College of Education which prepares teachers for elementary, intermediate, and secondary schools, the College of Basic Education offers programs in elementary education only. It offers different majors including, Islamic education, Arabic language, physical education, educational technology, early childhood education, music, social studies, special education, arts, home economics, interior design, and mathematics and science. Admission requirements to the College of Basic Education are similar to those of the Kuwait University College of Education, which we previously described.

Both EPPs offer initial preparation programs that are based on a credit hour system. Table 15.1 provides a comparison of the teacher initial preparation programs offered by the two EPPs.

As shown in Table 15.1, we note the similarity between the two programs in terms of the structure and content. Both are completed within four years. Curriculum in both programs is structured around four main areas: (1) general preparation courses which provide teacher candidates with general cultural and contextual knowledge (e.g.), (2) specialized content knowledge courses closely associated with the candidate's specialized major (e.g., English, mathematics, science), (3) pedagogical content knowledge teaching (e.g., teaching methods, use of technology as pedagogy to support student learning, knowledge of the learner's emotional, social, and intellectual development), and (4) professional practice and field experiences (e.g., the teacher candidate's exposure to opportunities for observing and implementing the PCK to impact student learning outcomes (e.g., student teaching, microteaching laboratory, placement in

College of Basic Education—PAAET			College of Education—Kuwait Universit			sity	
Туре	Courses	Credits	%	Туре	Courses	Credits	%
General	Compulsory Elective	9 21	27.6	General	Compulsory Elective	21 9	22.3
	Total = 30 crosses = 30 cross	edits			Total = 30 crosses = 30 crosses	edits	
Academic specialized	Compulsory Elective	30 6	22.3	Academic specialized	Compulsory Elective	41 3	33.3
	Total = 36 crosses	edits			Total = 44 crosses	edits	
Student teaching	Compulsory Elective	25 4	18.4	Student teaching	Compulsory Elective	45 3	35.5
	Total = 29 crosses relations relat	edits					
Minor major	Compulsory Elective	15 9					
	Total = 24 crosses	edits			Total = 48 crosses	edits	
Practical	Training Seminar	9 2	8.4	Practical	Training Field Seminar	93	8.8
	Total Credits $= 11$				Total = 12 credits		
Overall credits $= 130$		100	Overall credits $= 134$		100		

 Table 15.1
 Comparative study plan of the college of education and the college of basic education

school). The two programs differ in the number of credit hours (Kuwait University teacher preparation program has 135 credit hours, whereas the College of Basic Education is comprised of 130 credit hours). Further, the Kuwait University TEP prepares teacher candidates to teach all school levels from preschool to secondary, whereas the College of Basic Education program graduates teach at preschool and elementary schools.

Kuwait does not have a long-standing history of teacher education programs. The readiness of novice teachers in Kuwait has come to the forefront particularly as there has been a debate over whether the country has a strategic plan of initial teacher preparation and other teacher certification pathways. The teaching workforce depends considerably on the recruitment of expatriates both in public and private schools. In an unpublished doctoral dissertation, Bufarsan (2000) analyzed the teacher preparation program content offered by the College of Basic Education. The analysis relied mainly on exploring the views of teacher educators, pre-service teachers, and novice teachers. Participants in the study were provided with a survey that asked them questions about the extent to which they were satisfied with the initial teacher preparation program content in terms of curricula and instructional methods. Overall, the investigation revealed that the program is not aligned with international standards such as those adopted by several EPPs in the USA. The teacher preparation program at the CBE has less focus on technological skills, soft skills, and professional responsibility disposition and values.

To enhance initial teacher preparation in Kuwait, a two-year collaboratively joint project between the College of Basic Education and the University of Hull in England was undertaken. The project, which was implemented between 2012 to 2014 and underpinned by an interpretivist methodology and aimed at improving the program curriculum, assessment processes, and teaching practicum. The collaborative team interviewed teacher candidates, teacher educators, and other stakeholders. One main finding highlighted by the project was the restricted and slow support for change at the political, institutional, and program levels, which is a bureaucratic cliché of most Arabic-speaking countries. Further, the report identified a number of challenges that face initial teacher preparation in Kuwait including: (1) low admission rate of program entrants, (2) large number of students fail to complete the program within the four year period, (3) admission and selection procedures disregard prospective teachers' preferences, (4) absence of a designed gate system to ensure that teacher candidates qualify as teachers, (5) lack of a quality assurance system to ensure program effectiveness, (6) limited educational technology facilities to support and scaffold teacher candidates' learning, and (7) fewer opportunities to engage in field experiences and professional practice.

## The Empirical Investigation

Effectiveness of teachers in Kuwait is substantially contingent upon how they were prepared in their EPPs (Parker & Heywood, 2000). They should not only possess a robust understanding of the subject matter they will teach but also should develop a subtle knowledge of the innovative pedagogy for delivering it to learners. Although there has been a surge of research on PCK in the last two decades, we have not found any reference of PCK of teachers and in teacher education programs in Kuwait in any of the scientific databases. Therefore, we need to extend to our limited of what prospective teachers in Kuwait truly obtain from their teacher preparation programs. The growing solid connection between constructivist teaching approaches for teaching various subjects in schools brings to the evaluation of the current PCK introduced by EPPs in Kuwait to the forefront to ensure that teachers will be capable of teaching effectively in school and impact student learning outcomes. Additionally, due to interconnection between teacher preparation and cultural factors (curricula, resources, textbooks, type of school, gender-related issues), there is a need to examine how PCK is perceived in different countries. To our knowledge, and based on searching scientific databases, there has been no empirical investigation of the impact of novice Kuwaiti teachers' perceived PCK on their teaching ability.

It is understood that young generations in Kuwait represent the country future as they will be future leaders and active citizens. It is equally undisputed that the future of mankind will be filled with various economic, political, technological, health-related, environmental challenges, which will test our capability and skills. The primary purpose of any educational system in all countries, rich or poor, is to prepare a generation equipped with whatever knowledge, skills, and dispositions necessary to predict, prevent, and act adequately to make our life better in the years to come. With this in mind, our empirical investigation of novice teacher perceived PCK impact on their teaching ability becomes relevant to our review of teacher education in Kuwait. As such, the empirical investigation seeks to answer one main question: How do teachers perceive the impact of their pedagogical content knowledge on their ability to teach effectively?

## Method

#### **Participants**

Teacher candidates from the two main education preparation providers in Kuwait were invited to complete a survey asking them to rate their perceived pedagogical content knowledge based on the core educational courses in their teacher education programs. Convenient sampling was employed to recruit participants. The teachers' response rate for the survey was 76.5% (n = 306 teachers from a target sample of 400 teachers). The sample of respondents consisted of 164 graduates of Kuwait University teacher education program and 142 graduates of the College of Basic Education. Of the 306 participants, 101 were in science majors, 205 were in arts majors. Further, 91 were elementary school teachers, 62 were middle school teachers, and 153 were secondary school teachers. With regard to gender, the majority of the participants were female teachers (288) with only 18 male teacher respondents. Schools in Kuwait are gender segregated. All participants were novice teachers with a maximum of 3 years following the employment in the teaching career. Table 15.2 presents the demographic information of the study sample.

Characteristic	Measure		Teacher sample $(n = 306)$
		Frequency	%
College	Kuwait University	164	53.6
	Basic Education	142	46.4
Specialization	Sciences	101	33.%
	Arts	205	67.%
Gender	Male	13	4.2%
	Female	293	95.8%
School level	Elementary	91	29.7%
	Preoperatory	62	20.3%
	Secondary	153	50.0%

 Table 15.2
 Novice teachers' demographic information

#### Instrument

A survey developed by the authors was used for data collection during the fall semester 2021/2022. The survey consisted of two sections. The first section required respondents to provide some demographic information as follows: (1) gender, (2) EPP, (3) year of graduation, (4) study major (arts versus science), (5) school level (primary, middle, and secondary), (6) educational district. The second section of the survey was a rating scale on teachers' perceptions of pedagogical content knowledge (TPPCK). The TPPCK items were developed based on similar instruments in the literature (e.g., professional teaching knowledge and skills survey [PTKSS], Clark et al., 2015) and the InTASC 2011 model core teaching standards (Interstate New Teacher Assessment & Support Consortium, 2011). The TPPCK comprised 31 items that conceptually described the knowledge, skills, and dispositions that teachers could have acquired from their teacher education program. All items were rated on a five-point Likert-type scale format (0 =strongly disagree to 4 =strongly agree). A panel of educational experts from teaching faculty members at both EPPs in Kuwait and at the Ministry of Education were requested to review the survey and determine its appropriateness of content, linguistic soundness, and relevance to the goal of the current empirical investigation. This procedure was also intended to eliminate any possible paradigmatic bias. The panel's feedback served as a pilot test of the survey's face validity. Next, the survey was designed in electronic form using Google Form and in print. The URL of the electronic survey was sent to schools by email. Additionally, copies of the printed survey were mailed to schools in case teachers chose not to respond electronically. The first page of the survey included a description of the study and written consent section. The electronic survey remained live for four weeks, and no more responses to printed surveys were accepted beyond the same time duration. Prior to the commencement of data collection, an approval was obtained by the Ministry of Education and Kuwait University.

#### **Data Analysis**

For data analysis, SPSS package version 23 was used to conduct an exploratory factor analysis (EFA) of the TPPCK. To examine the validity of the TPPCK conceptual constructs and test the model fit, confirmatory factor analysis (CFA) was conducted using the AMOS package version 26. Next, the measurement and psychometric properties of the TPPCK were tested. Reliability was assessed using Cronbach's alpha test of internal consistency; construct validity was assessed through CFA. The validity of the measurement model was assessed using the maximum likelihood estimation on the covariance matrix, eliminating items with factor loading <0.50. Additionally, we used the most common fit indices: chi-square/degrees of freedom ratio (X2/df), comparative fit index (CFI), normative fit index (NFI), Tacker-Lewis Index (TLI), and root mean square error of approximation (RMSEA).

## Results

#### **Exploratory Factor Analysis**

After obtaining evidence on the face validity of the TPPCK, EFA was conducted to explore the scale structure. The Kaiser-Meyer-Olkin value for defining the sampling adequacy was shown to be significant (0.965), as values above 0.8 are considered acceptable (Field, 2009, p. 647). The maximum likelihood analysis with varimax rotation was applied and resulted in the emergence of four distinct factors from the overall TPPCK. As shown in Table 15.3, results suggested that the four factors in the construct have significant moderate intercorrelations, indicating their dependence on each other. The correlations between the four factors exceeded the threshold of 0.30, as recommended by Tabachnick and Fidell (2019), reflecting factors' associations. The factor loadings of the items were higher than 0.50 and consistent within each factor. Table 15.3 illustrates the factor loadings for each emerged factor using the varimax rotation.

We found that the first factor, referred to as pedagogical knowledge and skills, includes seven items relating to the novice knowledge and skills associated with the curriculum, the design of instructional and representational strategies, and knowledge of students' understanding and characteristics (e.g., I manage the classroom effectively; I design valid assessments to evaluate students' learning). The second factor, referred to as dispositions and professional values, includes seven items which describe novice teachers' attitudes and beliefs about their role as a teacher (e.g., I understand the importance of cultural values in teaching; I believe that all students can learn). The third factor includes six items defining novice teachers' understanding of school, family, and society relations (e.g., I succeeded in involving and collaborating with parents; I know the philosophy, purpose, and principles of Kuwaiti National Curriculum). The fourth factor has five items which reflect the soft skills novice teachers acquired from the courses which developed their PCK (e.g., I acquired good communication skills; I succeeded in interacting with students inside and outside the classroom).

## **Reliability Analysis**

We tested the scale reliability by examining its internal consistency Cronbach's alpha technique. Items for each loaded factor were checked to determine the internal reliability of TPPCK. All four factors showed excellent internal consistency with values equal to or above 0.90 (Table 15.4), as values of alpha above 0.8 imply high reliability (Field, 2009).

Items		Component				
			2	3	4	
4	I can create a motivating learning environment	0.648				
5	I am capable of catering for diverse learners	0.633				
6	I design developmentally appropriate instructional activities	0.633				
28	I manage the classroom effectively	0.622				
3	I apply pedagogical knowledge in real instructional situations	0.612				
1	I design valid assessments to evaluate students' learning	0.589				
2	I am able to adapt curricula, teaching methods, and assessments for diverse learners	0.576				
14	I understand the importance of cultural values in teaching		0.721			
17	I value the educational utility of instructional technology to support students' learning		0.694			
15	I became extremely interested in becoming a teacher		0.648			
27	I understand the significance of the teaching profession		0.569			
25	I feel I am a professional teacher		0.558			
26	I understand the challenges associated with the teaching profession		0.541			
16	I believe that all students can learn		0.535			
12	I can work as a leader and as part of a team to serve students' educational needs			0.740		
11	I succeeded in involving and collaborating with parents			0.707		
8	I benefited from the school facilities and environment to support to increase school effectiveness			0.620		

 Table 15.3 Exploratory factor analysis for TPPCK

(continued)

Items		Component				
		1	2	3	4	
9	I understand the significance of school leadership			0.602		
10	I know the philosophy, purpose, and principles of Kuwaiti National Curriculum			0.588		
13	I understand that interaction with parents can increase students' learning			0.586		
20	I acquired good communication skills				0.742	
21	I benefited from the educators who taught me the courses				0.735	
22	I am confident of applying the acquired knowledge and skills in real context				0.672	
23	I succeeded in interacting with students inside and outside the classroom				0.589	
24	I believe that teacher agency is what makes me different in school				0.526	
Eigenvalue		4.48	4.26	4.01	3.88	
% of varian	ce	17.93	17.05	16.02	15.51	

Note Percent of explained variance 66.51; extraction method: maximum likelihood. Rotation method: varimax with Kaiser normalization

Construct	α	x	SD	1	2	3	
1	0.904	3.44	0.90	1			
2	0.931	3.35	0.99	0.761**	1		
3	0.931	3.63	0.98	0.753**	0.784**	1	
4	0.919	3.34	0.99	0.713**	0.791**	0.755**	1

Table 15.4 Descriptive statistics, reliability, and correlations

*Notes* five-point Likert scales; teachers, n = 306, \*\* $p < 0_001$ 

## **Confirmatory Factor Analysis**

CFA was used to examine the construct validity of the TPPCK and test the goodness of fit for the scale structure. Based on the results obtained from the EFA, the four dimensions of the TPPCK were used to develop its measurement model. The measurement model was, then, used to examine the validity of the four-component

Table 15.5	Model fit indices	

Constructs	$\chi^2/df$	CFI	NFI	TLI	RMSEA
TPPCK (four factors model)	2.53	0.937	0.900	0.930	0.071

Notes N = 306,  $\chi^2/df =$  chi-square/degrees of freedom ratio; CFI = comparative fit index; (NFI = normative fit index, (TLI) Tacker-Lewis index, RMSEA = root mean square error of approximation

structure, followed by testing the goodness of model fit using different fit indices. Table 15.5 provides the different model fit indices and the acceptable levels of fit used to assess the adequacy of each model.

The values of X2/df < 3.0; CFI, NFI, and TLI > 0.90; and RMSEA < 0.08 indicated a good fit (Anderson & Gerbing, 1988; Hair et al., 2006). The correlations among four dimensions were also significant but almost at a moderate level, which shows that the four factors significantly describe four different associated aspects of a single construct.

## Discussion

In this section, we reflect on the context of TEPs in Kuwait in regard to current global trends of teacher preparation. Next, we discuss the findings of the empirical investigation of novice teachers' perceived PCK impact on their ability to teach. Recently, there has been increasing pressure on teacher education programs in Kuwait to demonstrate the quality of program contents, provide evidence of the quality of program completers, and employ data to inform continuous improvements. This increasing demand for the display of program quality has been also associated with a similar demand to seek international accreditation from the Council of Accreditation of Education Preparation Providers (CAEP) in the USA, particularly as a few institutions in the Arab region have taken that step (Al-Abri, Emam, Al-Siabi, 2019; Al-Balushi et al. 2020). In fact, the CAEP has taken major strides to extend its standards to be embraced by internationally including education preparation provides in the Arab region, a step which was described as the Madonaldization of teacher preparation standards (Romanowski, 2020; Romanowski, & Alkhateeb, 2020).

Searching scientific databases to locate studies which empirically explored TEPs in Kuwait or critically analyzed their components rendered very few records. This reflects the needs to conduct empirical research to answer questions which are currently raised in different contexts across the globe. Examples of these questions include: Is TE important for teacher preparation? What are the features of effective TEPs? Do these features apply to TEPs in Kuwait? Is TE in Kuwait embracing recent international standards which are propagated by international professional organization? Is initial teacher preparation in Kuwait better than alternative teacher certification pathways if they exist? Answers to these questions and others could inform the future of TE in Kuwait. It is noteworthy to mention that we found no records in scientific databases, which attempted to answer any of these questions. It

may be the case that TE in Kuwait is changing slowly and it seems that Kuwait along its history has not made significant changes to TE preparation. From the review of literature which we conducted in this chapter, it seems that Kuwait embraces initial teacher preparation as the only pathways to teacher education and that this is implemented by two major TEPs in Kuwait, one by Kuwait University and the other by the College of Basic Education. No research evidence has examined the effectiveness of these two programs through the use of objective measures or completer surveys that reflect international standards. According to Darling–Hammond (1999), there is accumulated research evidence that the common features of successful TEPs include having a clear vision of quality teaching which is reflected in program coursework and clinical experiences combined with precise standards of performance that the guide the evaluation of courses and clinical experiences.

Although EPPs in Kuwait have not yet sought international accreditation by international organization such as the CAEP, yet the completer surveys may significantly relative to measures of teacher effectiveness particularly as they can inform the accountability and improvement activities in Kuwait. In the absence of objective measures of teacher effectiveness in teacher education programs in Kuwait, completers' surveys can provide significant feedback on program quality. Additionally, completer surveys typically explore program quality across several areas such as content knowledge, pedagogical content knowledge, dispositions, values, and ethics, and therefore, they directly provide EPPs with data that can guide future decisions. There is recent evidence that completers' perceptions are moderately associated with teacher effectiveness and retention (Bastian et al., 2021).

This is the reason we aimed to use completer survey to provide some insight to TEPs in Kuwait. It is argued that the teaching profession, unlike other professions, requires necessary humanistic qualities and efficient communication. These qualities enable the teacher to play different roles in school including the role of a substitute parent. What makes an effective teacher has been a topic of debate among researchers. Some researchers believe that personal characteristics such as concern and love for students, enthusiasm, and communicative interaction could contribute to effective teaching; others consider the possession of subject content knowledge and good PCK essential to have an inspiring teacher (Al-Musawi & Karam, 2011; Stronge, 2002, 2006; Strong, 2009).

For the purpose of the current chapter, we explored Kuwaiti novice teachers' perceived PCK impact on their ability to teach. We designed TPPCK survey that incorporated the different aspects of PCK of TEPs as delineated in international standards and related literature. The TPPCK included four dimensions: (a) pedagogical knowledge and skills, (b) dispositions and professional values, (c) school, family, and society relations, and finally (d) teacher's soft skills. An EFA and a CFA were conducted to validate the survey and examine its four-dimension structure. The data provide evidence of the TPPCK model fit. Overall, novice teachers in Kuwait reported a moderate rating for in the four dimensions of the TPPCK, reflecting a moderate perception of how well they were prepared to be successful and effective. This result in itself implies that novice teacher expressed a need to a more training to improve their PCK. It also echoes some previous concerns by Kuwaiti scholar (Al Qalaf, 2009; Alsaqabi, 2020; Al-Shamry, 2017) urging for aligning TEPs in Kuwait with international standards. Based on Kuwaiti teacher response, it seems that there is a disconnection between some of what the program curricula provide and what teachers were faced with in real context. This notion is consistent with previous research (Ballantyne, 2007; Fives & Buehl, 2014; Grieser & Hendricks, 2018; Legette, 2013) which suggested that there is a gap between theory and practice which TEP needs to bridge by providing numerous real-life clinical experiences. Although participants in our investigation found some value in their preparation experiences, it seems that more is needed with regard to contextualizing PCK theories and content to link between knowledge and skills for applying it in real situations. In the sections to follow, we provide some insight into how this rating may explain TEPs in Kuwait from the perspective of international standards and exemplary programs of teacher preparation.

The first dimension of pedagogical knowledge and skills represents the core experiences that teacher candidates in Kuwait obtain during their preparation programs. Therefore, their moderate rating of the impact of PCK courses on their teaching ability warrants discussion. From the perspective of the continuous learning model of teacher effectiveness, novice teachers' could have faced a number of challenges adapting to the school environment which represents a real context even though they were exposed to this environment as a trainee during field experiences and students teaching (Cheng & Tsui, 1999; Kyriakides et al., 2006; Soysal & Radmard, 2018). To expand on this point, TEPs in Kuwait may consider the frequently rapid changes that occur in the educational environment, which requires program content in terms of PCK courses and field experiences exposure to be continuously updated and reviewed. Three decades in Kuwait the use of technology in teaching was not as necessary as it is at the current time. Teachers themselves understand that instructional technologies maximize the learning benefits for all learners. Further, TEPs in Kuwait should inculcate the concept of lifelong learning and professional development for teacher candidates in order to prepare them for the new school environment that will remain challenging as they develop from novice teachers to expert teachers. The continuous learning model has emphasized that improved teacher performance is contingent upon the teachers' possession of adequate PCK to analyze a challenging and continuously changing school environment, reflect on the contextual changes, and develop appropriate strategies to ensure continuous improvement. The number of field experiences and student teaching hours in both programs in Kuwait can be regarded as modest compared to international standards and exemplary model. There is evidence that the amount of support and supervision teacher candidates received during their clinical experiences and students teaching was a strong conversely associated with teacher attrition (Boyd et al., 2009; Oh et al, 2005; Raymond-West & Rangel, 2020). Additionally, Clark et al. (2015) reported data suggesting that teacher candidates acquire rich experiences during student teaching through modeling and close supervision, which contributes to their self-efficacy when they take their classroom in real school context.

Teachers' held dispositions and values are important for successfully effective teachers. The ability to teach and cater for diverse learners, for example, is one of the issues that TEPs in Arabic-speaking countries in general and Kuwait in particular grapple with. Inclusive education has become the norm globally, but it still stumbles in the Arab region (Emam, 2016). Both programs by the two main EPPs in Kuwait need to consider how teacher candidates are prepared for teaching all learners. No core courses are presented in both program to general educators. There is research evidence that teacher candidates display lower self-efficacy in teaching diverse leaners than in teaching mathematics, reading or science and that PCK coursework received during their preparation program on the issue of diversity determines their self-efficacy (Bozkurt & Nafiz Kaya, 2008; Clark, 2020; Fitchett et al., 2012, Lastrapes & Negishi).

For the third dimension which focuses on issues of related to family, school, and society, the moderate rating participants denotes that they needed more knowledge and skills on these issues. For example, scholars have demonstrated that teacherparent collaboration and partnership contribute to students' learning outcomes including social and emotional learning (D'haem & Griswold, 2017; Epstein, 2011; Uludag, 2008). Similarly, the soft skills that teachers need in order to be successful and effective including communication skills, possession of agency, confidence, and good interaction skills with students were also perceived as moderate, reflecting that these skills could have been higher if they were exposed to ameliorated opportunities for practice. In summary, the results are consistent with what Darling-Hammond suggested when she argued that a powerful TEP is the one that provides teacher candidates with opportunities to "practice in practice" i.e., to have more exposure to clinical experiences and real situations that can make the teacher candidate develop as a problem solver (Darling-Hammond, 2010).

## Limitations, Implications, and Future Directions

The content and empirical investigation incorporated in this chapter are not without limitations. It is noteworthy to mention that the authors were surprised with the scant published English literature on teacher education in Kuwait. Additionally, the number of scientific Arabic databases is also limited. Therefore, we believe that this chapter could have been improved if Arabic literature was included. Although we referred to very limited number of Arabic literature, further research may conduct a systematic review of Arabic literature on TE in Kuwait. This limitation in itself indicates that our chapter addressed a shortcoming in the literature of TE in other contexts, namely Kuwait. The empirical investigation reported in the chapter was based on self-reported data by novice teachers in Kuwait. The investigation could have been improved by providing data from real context observation, interviews, and artifacts. Additionally, it is possible that selection bias affected our empirical investigation. Novice teachers who returned the surveys probably were confident enough of themselves compared to teachers who did not. Further, our designed survey required participants to recall information from the past when they were teacher candidates, which could have affected the accuracy of their responses. The reported

findings in this chapter do not offer any causal interpretations to the reader. The data were helpful in exploring novice teachers' beliefs of the PCK impact on their teaching ability.

Given the strengths of completer surveys which we highlighted previously, they could contribute to data-driven accountability and improvement efforts by EPPs in Kuwait. The results of our review together with the findings from our empirical investigation can offer some insights and practical implications to teacher education in Kuwait. First, our findings suggest that teachers' PCK is perceived by teachers as cost and time efficient and that even though they perceived its impact on their teaching ability as moderate, it remains a key component of teacher preparation. Second, and based on our findings, the two TEPs reviewed and empirically investigated in this chapter need to invest in completer survey data to inform program changes. They also need to design surveys in the light of international standards of TE. Third, our investigation did not examine the impact of gender, educational major (e.g., science versus arts), and quality and quantity of field experiences and/or student teaching on novice teachers' perceived impact of PCK on their teaching ability. Future studies may consider these variables across the current or future EPPs in Kuwait. Fourth, longitudinal studies are needed on TEPs in Kuwait. There are several variables (e.g., self-efficacy, teacher agency, workforce outcomes) and different components (e.g., type of mentoring and support) of the TEP that need to be explored in regard to their impact on Kuwaiti teachers' perceived PCK impact on their teaching ability. Fifth, there are currently no alternative teacher education certification pathways in Kuwait. It is likely that the complete dependence on initial teacher preparation is a political decision given that there are large numbers of expatriate teachers working in Kuwait. It also seems that the government is not currently in a rush to rely on alternative teacher preparation pathways. However, this issue could be a topic for discussion between policy-makers and teacher education scholars in Kuwait. Data from different contexts on the comparison of both pathways to the teaching profession may inform such discourse in Kuwait.

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# Part III Subject-Specific Teacher Education

## Chapter 16 Teaching Practices and Mathematics Teacher Education in Lebanon



Hiba Naccache

Abstract This chapter describes mathematics teacher education in Lebanon that has well-developed systems for teacher preparation. It investigates Teacher Education Strategies and practices in Lebanon with a focus on private and public sectors, within the context of philosophy, policies for enrollment, training, ongoing professional development, and collective improvement of practice. Moreover, this chapter describes the structure of the Lebanese teacher development program around the following components: government policies, standards for entrance the teacher education program, characteristics of the education program for mathematics teachers in secondary education, alternative teacher's certification programs in the private sectors, and recruitment according to professional development. The chapter investigates some reports describing teachers' qualifications and their confidence in teaching mathematics. The final part attempts to provide some conclusions about the effectiveness of such programs in developing mathematics teachers and induce them into classrooms.

**Keywords** Lebanon  $\cdot$  Teaching strategies  $\cdot$  Professional development  $\cdot$  Training programs  $\cdot$  Quality of teaching

## Introduction

Several research studied the impact of teacher's pedagogical content knowledge (PCK) on student's learning outcomes in mathematics; they explored and investigated (PCK) to understand the constitution of teachers thinking. Studies are working on filling the research gap on teacher's training and its impact on their practices particularly in mathematics, where teachers' qualification has huge effect on students understanding of the content.

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Many questions arise about teachers' preparation programs in mathematics in Lebanon and the best way to success in improving educational outcomes. Some of the questions to answer are:

- What are the main traits of the applicants to enter to teacher programs?
- What are the requirement needed to be accepted in this program?
- What is the differences between teacher preparation at the undergraduate level of education and teacher preparation at the graduate level in Lebanon?
- Is there any difference between teachers' preparation at private universities compared to public university?
- What aspects the teachers receive while studying in the program?
- How valid and reliable data should be collected to reflect the content knowledge and the pedagogical competence of teachers after graduating from the program?

Due to the hard work and limitations of resources to cover the entire questions, the author will provide answers that reflect the systematic efforts in collecting the required data.

## **Mathematics Teachers' Preparation**

Let us look first at what students supposed to learn and know about mathematics then compare it to what is being taught in Lebanon. In the last forty years, the national council of mathematics in USA set several standard and skills needed for students to master knowledge in mathematics. After the release of *curriculum and evaluation standards for school mathematics* in 1989 by the national council of school of mathematics (NCTM) members, several countries adopted these standards and applied them to their curriculum including Lebanon. This approach triggers the need to prepare both pre-service and in-service teachers to master mathematical skills and to develop conceptual understanding.

After releasing the *Principles and standards for school mathematics* by NCTM in the year 2000, they published in literature several updates related to theory and practices. These *principles* consist of five content and process standards, the content standard are algebra, number and operations, measurement, geometry, and probability and data analysis, the process standard consists of reasoning and proofs, problem solving, communication, presentations, and connections. Students should achieve these standards at each level from kindergarten to k-12 classes. These standards are added to six principles for school of mathematics: curriculum, equity, assessment, teaching, learning, and technology. The center of educational research and development at the Lebanese government (CERD) adopted these standards and principles and began to train teachers, then reported in the year of 2005 that they were familiar with them.

Later on and in the year 2010, the CERD trained intermediate and secondary teachers the new focal points released by the NCTM (*curriculum focal points for* 

prekindergarten through grade 8 mathematics: a quest for coherence), and this document contained fundamental guidance on mathematics topics that learners should achieve at each grade level in schools.

The educators at the tertiary level drew attention to the preparation of pre-service teachers and adopted a new curriculum to meet the standards. The aim was to prepare pre-service students to teach mathematics according to new standards for the aim of a higher quality teachers, which in turns reflect on students' outcomes. In literature, many researchers argue that higher educational institutions responsible of teacher preparation play an important role in improving the quality of teacher performance, so the future of the nation is well secure. Thus, the new curriculum leaded higher institution responsible of teacher preparation to demand expectation from teachers in both pre-service and in-service programs.

To answer the questions above, we need to have an overview of the teaching preparation programs offered in Lebanon, these programs differ in their pathways, and this diversity includes the quantity and content designated, duration and timing of the fieldwork, types of the programs, and type of institution offering these programs.

Motivating pre-service teachers and specifically mathematics teachers in Lebanon is prepared in two types of higher institution: public and private. The public institutions as the faculty of pedagogy, center of research and development, and the department of pedagogical support. These institutions are in direct contact with the ministry of education; the first institution prepares pre-service teachers, while the rest deal with in-service teachers (training, counseling, and guidance) with a complete collaboration between all of them. Private universities also have teachers' preparation programs; students will be enrolled after finishing their bachelor major; none of these universities offers pre-service teacher preparation in an undergraduate level of education.

Let us have an overview of the faculties of education at the Lebanese Universities.

### **Public University**

To be accepted in teacher program at both undergraduate and graduate levels at Lebanese University faculty of pedagogy, the students should pass a comprehensive exam in mathematics related to mathematical content skills needed to teach grade one to grade six for undergraduate level and secondary for graduate level. After passing the comprehensive exam, the students will be subjected to an interview by a committee of three to four professors to check his/her ability to do math and teach it.

The European commission stated that Lebanon has a high literacy, and most universities have agreements with one or more institutions in Europe, Canada, or in the USA where during the year 2015, around 14,000 Lebanese students traveled outside the country seeking degrees abroad. In the year 2018, the international conference on Science and Education reported that more than 79,000 of the students are

enrolled Lebanese University in which 2698 are in the faculty of pedagogy known in 1951 as the high teacher's institution then renamed the faculty of pedagogy in 1976.

The goal of the faculty is to prepare and train elementary and secondary teachers. According to the Bologna-reformed European system of higher education, the faculty of pedagogy at the Lebanese University implemented three consecutives cycles; a bachelor degree (3 years) known as license in the French system, a master (2 years) and a doctorate (3 years) degrees. The Bologna reform in addition to the American reform has main objectives as promoting mobility by overcoming legal recognition and administrative obstacles, adopting a system of easily readable and comparable degrees. In the academic year 2008–2009, the faculty of pedagogy implemented the LMD program in the three cycles of education with the use of the European credit transfer system. The programs of study in the French-structured institution; the faculty of pedagogy is offered in three languages Arabic, English, and French.

The students attend the faculty in three branches; denary for master's level, branch I, and branch II disseminated in Beirut area.

The faculty of pedagogy at the Lebanese University is an applied more than theoretical faculty; it prepares pre-service teachers mostly for public schools at the elementary level and for both public and private secondary schools at the masters' levels. In addition to a bachelor degree for science and mathematics teachers at the elementary level, the undergraduate branch I and branch II offer various specializations, such as physical and sports education, early childhood, teaching English or French as foreign languages. In addition to these specializations, the master level offers a master of school counseling, educational supervision, educational administration, and special education. The fourteen weeks' semester in mathematics education allow students to register for 18 to 30 credits and attend eight courses, which vary from free to optional and compulsory as 52 courses.

The courses required for the pre-service mathematics teachers range from theoretical (e.g., development of educational thought), or practical (technology in teaching), or applied (classroom observation), some courses are required according to the specialized track, and the others are optional but end up to be compulsory due to the lack of diversity in courses. All didactics courses are offered in both foreign languages French and English, while social and general education common between all specializations are offered in Arabic language. Based on the LMD system, the assessment of the students is based on two partial exams, which comprise class presentations, quizzes, and projects and count for 40% of the final grade and one summative final exam that count for 60%. The method of instruction in the didactics courses follow the constructivism approach, while other courses still use the traditional method of instruction.

#### **Private Universities**

Private universities in Lebanon offer teachers' preparation programs called teaching diploma (TD); the faculty of pedagogy at Lebanese University does not offer this

diploma. This program is offered to graduate students for a better potentials and teaching skills needed in the market. The only requirement to enter this program is having a bachelor degree in any major related to the topic taught at schools (sciences, mathematics, and social sciences).

This program is not designed as a requirement needed to teach at Lebanese schools, but some in-service teacher enroll in this program in order to acquire teaching skills and new methodologies. Moreover, most of graduate students and in-service teachers prefer such program due to the short period of the program (two semesters) compared to the master degree (2 years) offered by the Lebanese University faculty of pedagogy.

Most of private universities have similarities in teaching mathematics programs, and the students have to complete 18 credits in mathematics and mathematics education in which six of them are general pedagogy courses. The content of the mathematics courses is similar, consists of mathematics introductory courses and pedagogical mathematical basis of various approaches in teaching of mathematics in the elementary and secondary schools. The first mathematics pedagogical courses include demonstrations, applications, and classroom observation. The second mathematics course, which based on preparation of teaching and learning materials, tests and plans to be applied in the classroom. Moreover, some universities add supervised practice teaching, individual and group meetings.

Although most of these programs in private universities are similar, they differ in the fieldwork; six credits are required for universities following the American system, while a one-year fieldwork is required for universities following the French system. The period of practice for the fieldwork is the only difference between the programs, but the content of the practicum course—as named by these universities—consists of observation and practices in the presence of the university course instructors and cooperating with school teachers.

It is important to note the absence of university-level programs for the preparation of the intermediate school mathematics teachers. This absence reflects a weakness in the minimum credits required for the fieldwork and influences classroom practices of the teachers after graduation.

Although teachers' preparation at both the public and private institution follows the international standards, studies point on several gaps concerning theoretical framework, application of professional practices, and the discrepancies between different institutions. Moreover, studies showed absence of the connection between what teachers learned and what they will practice at schools after graduating. This weak connection is due to the lack of follow-up of pre-service teachers when they will be in service.

Moreover, a lack of studies concerning the attitudes of supervisors, students, and in-service teachers about these programs, even though these studies enlighten both pedagogical and subject content in these preparation. Therefore, a main recommendation is that the programs should be standardized for all the country and under the follow-up of the government institutions.

Another issue should be raised, the matter of contractual teachers which have a negative effect on the process of teaching and learning. These teachers are hired in Lebanon according to political consideration, which prevents the recruitment of well-prepared teachers. The solution is a certification set by the ministry of education, and the recruitment of teachers should be under this certification only.

In addition to the issue of recruitment of teachers, the continuous development of in-service teachers is subjected to the international aids from organizations, which much needed to support and improve teachers' practices in the classroom.

## **Nature of Teacher Education in Lebanon**

The quality and the strength of students' outcomes are related to teacher ability to deliver pedagogical content and apply them with motivation and sensitivity in class-rooms. Therefore, the program needed for teacher education should be a combination of education, research, and training.

Moreover, these programs should train teacher to face challenges and develop his/her proficiency in the profession. Teachers should not be prepared as technicians but should embrace pedagogical theories, teaching, and professional skills, and this combination will make them achieve the right knowledge.



## **Teacher Education in Lebanon**

The perception about the performance of the education system in Lebanon occupies the 75<sup>th</sup> percentile globally in terms of perception of education quality (at the rank 37 from 141 countries according to World Bank). However, perception is different from reality where according to the World Bank in 2018, Lebanon is at the 36<sup>th</sup> percentile globally in terms of learning outcome, which determines the metrics of success in education.

Therefore, the demand for high quality teachers' preparation is a major concern in Lebanon, and students' performance in public education as well as private education is a key element to recognize the quality of teachers and set plans for improvement under the No Child Left Behind legislation. Therefore, one of the keys to look at is the reasons that aspire teachers as expected compensation when graduating, status of finding easily a job in Lebanon, and their opportunities while working in the field to get a continuous professional development.

The center for research in education in Lebanon made several recommendations in the last 15 years regarding teacher preparation, but the most important recommendation is to ensure the quality of teaching force with mainly the help of universities. Although, we cannot cover all the issues related to teacher quality, but we will emphasize on the main factors affecting this preparation in Lebanon. Professional development of teachers, which represents an enormous industry in Lebanon and attempts to rely on indicators of teachers' college experiences. One of these indicators is the number of courses teachers take in their particular subjects to represent the extents of teachers' knowledge, the pedagogical preparation of teachers, and finally the number of hours they will be practicing teaching in the field.

The organization of Lebanon schooling as three stages: elementary (kindergarten through grade 6), intermediate (grade seven through 9), and secondary (grades 10 through 12) manifests big challenges for mathematics education. Different age group exists at each of these levels, which introduce distinct character that reflects the need of particular educational preparation and development needs.

While mathematics teachers at the secondary level are prepared as specialists in their content area, most elementary teachers teach all subjects except teachers prepared at the faculty of pedagogy at Lebanese University; they are prepared to teach content area (usually mathematics and science) at the level of elementary education.

With the absence of preparation at the intermediate level, mathematics teachers prepared for secondary education are those teaching these levels.

This will raise a question about the necessary instructional steps to support successful mathematics students. The key is to discuss how the students learn; mathematical prior knowledge, skills required to do mathematics, and finally mastering different strategies when solving mathematical problems.

Students' intuitions and resourcefulness brought to class are important because what students hold as misconceptions may interfere in the learning process; moreover, thinking that mathematics is only for smart people will make them struggle and consequently give up on learning mathematics.

Regarding the skills needed to do mathematics, the students build a path to understand mathematical concepts and apply them.

#### **Teaching and Professional Skills**

Students' performance in mathematics has been significantly lower than other countries in the region with declining trends as measured by international learning assessment. In the year 2018, the performance of math students in Lebanon recorded lower values then international records in both Trends in International Mathematics and Science Study (TIMSS) and Program for International Student Assessment (PISA)



**Fig. 16.1** TMSS 8th grade math. Source: Education Statistics (EdStats) (database), World Bank, Washington, DC, https://datatopics.worldbank.org /education/country/Lebanon. Note: MENA = Middle East and North Africa; TIMSS = Trends in International Mathematics Study



**Fig. 16.2** PISA 8th grade math scores. Source: World Bank, 2016.Note: MENA = Middle East and North Africa; OECD = Organization for Economic Co-operation and Development; PISA = Program for International Student Assessment

and TIMSS tests as presented below from 2003–2015 compared to the region and globally.

TIMSS scores in math 2003–15 (Fig. 16.1).

PISA 2015 scores in math and science (Fig. 16.2).

Therefore, these results highlighted the shortage of highly qualified mathematics teachers, which has been a major concern and impassionate topic for discussion in Lebanon in the last 30 years.

The Lebanese system divided into three stages—elementary level (kindergarten to grade 6), intermediate level (grade 6 to grade 9), and secondary level (grade 10 to 12)—in both private and public sectors needed different sort of mathematics preparation for each level.

The professional development of teachers in Lebanon encloses strategies, practices of different techniques as computer, counseling, interpersonal, and classroom management skills. Pre-service teachers at the faculty of pedagogy enrolled in both programs will achieve these strategies by training and practice in order to plan instruction and produce reinforcement and effective assessment. Upon graduating, the faculty of pedagogy assesses their students according to these strategies in order to make sure they will graduate with the practices needed. At the same time, many mathematics teachers in Lebanon who teach intermediate and secondary schools lack the required professional skills and content preparation. This situation has been a concern for a long time, and it requires attention to assess the status of teachers at schools and make sure they receive the adequate training.

Researchers proved that teacher's knowledge and skills have a strong influence in their practices. The recommendations of many mathematical councils in Lebanon were about taking more courses in mathematics in order to improve teachers' mathematical skills. Regarding teachers prepared at Lebanese University, pre-service elementary mathematics teachers usually take 12 semester-hours on basic and essential ideas of elementary school mathematics, while pre-service secondary mathematics teachers complete a 6-h fundamental course connecting their university mathematics courses with the needed high school mathematics. Many researchers proved that students, whose teachers completed many mathematics courses in their preparation, perform better on achievement tests than students whose teachers took fewer courses in their preparation. Noting that little evidence to what extent this course work will affect students' performance especially after the proof that teacher should think from the learner perspective in addition to being fluent in mathematics.

In addition to the Lebanese University, the center of research in education is another source on how mathematical teachers are prepared and the requirement needed for preparing mathematics teachers. To teach at Lebanese schools, majoring in the subject area is required to teach; no certification or tests are required before hiring, and only interviews that assess the mathematics knowledge necessary to teach. Teachers prepared at Lebanese University faculty of pedagogy have more advantages for being hired since they have the preparation needed to succeed in class.

The recruitment of the teachers in Lebanon does not follow the procedure set by other countries where the requirement is to have attend and pass a pre-service teacher program to get a teachers' certification. This was not the case before the 80's, the law specified passing the program of the Lebanese University to get a certificate, and consequently, it was the requirement for hiring in this profession. Moreover, it can be noted the existence of a teacher program for the intermediate level of education disappears after 1980 due to political issues. In addition to the disappearance of the certification after the teacher program, the increase of recruiting contractual teachers with no teacher preparation programs indicated a decline in the performance of the students due to the absence of coherent policy of recruitments. Moreover, the tremendous increase in the political recruitment of the contractual teachers and the political interference in the in-service teachers' preparation leads the Ministry of Education to be unable to monitor the performance of new recruited teachers.

## Pedagogy

The effectiveness of teachers' preparation and training usually explores teachers' thinking, their pedagogical and content knowledge (PCK).

The important questions in this part are what pedagogical practices teachers in Lebanon use. Are these practices effective on the learners and under what conditions? Finally, does school curriculum support effective pedagogy?

Therefore, we will discuss how teachers are applying pedagogical theories and mainly constructivism in their classes, moreover where these practices are identified as successful. The last question investigates how the Lebanese curriculum set by the center of educational research and development and followed by both public and private schools is the main reference for teachers in their pedagogical strategies and practices. Thus, how teachers' preparation introduces teachers' to the pedagogy in the curriculum and in their teaching profession.

Pedagogy itself involves the set of practices or activities that induce changes in the learners in which teachers gained during their preparation program and define their approaches.

During teachers' preparation at the faculty of pedagogy, the students practice all type of pedagogical approaches in their training. Studying theories are present in addition to practicing these theories in real classes. These practices comprise:

- Practicing visual presentations (using technologies or white boards, learning aids) to build their new knowledge and understand in order to be prepared to present it to the learners.
- Prepare teachers for spoken tasks as communication and parley (explanation, questioning, responding, and management talk)
- Learn how to explore new tasks to cognitively engaging learners with new mathematical content; the tasks involve problem solving, mapping, experimentation, and other practicing tasks.
- Master the act of remediation, intervention, and both formative and summative assessments.

All these tasks are included in the teachers' preparation, and students need to master them in order to graduate from both undergraduate and graduate programs at the Lebanese University.

Theories of learning are taught to the students' teachers in one course, and these theories are supposed to be applied in another two courses and in all their practices during their preparation. The theories covered are the behaviorism, constructivism, and social constructivism. Table 16.1 summarizes the theoretical schools that support different pedagogies in Lebanon.

## Curriculum

The main tools for teachers in classroom are the curriculum, particularly in Lebanon where it is presented in the official textbook. Students' teachers learn this curriculum from both the center for research in education where the main and specific objectives are listed and explained and from the official textbook. A course of curriculum is

Theories	Corresponded pedagogy	Pedagogies in developed countries	Pedagogies in Lebanon
Behaviorism	Teacher-centered learning "performance," visible pedagogy	Cooperation between all students in the class, and the whole class are working together. A particular sequence for mastery of skills	Direct instruction, acquisition of learning, demonstration, lecturing, imitation
Constructivism	Child-centered learning "competence" or invisible pedagogy	Conceptual, individual work, project, and activity	Activity-based learning
Social constructivism	Student centered guided by teacher	Mainly group work under strategies, flipped classroom, communication between teachers and learners	Group work, think-pair-share, communication between students, teacher high-level questioning, inquiry-based, problem-solving

Table 16.1 Theoretical schools of thought and associated pedagogies

given to them during their preparation to discuss the learning objectives in each level class.

Unfortunately, some schools in Lebanon teach mathematics content as contentdriven curricula where the key concept is discipline in order to finish the material on time, throwing all the theories of teaching and having full control from the teacher on the class. This is due to the exams set by the government at the end of grade nine and grade 12, the teacher has to finish the material in order to prepare his students for these exams. Although in some schools, this code is applied, and teachers graduating from universities and well prepared use curriculum as structured round sets of expected learning outcomes.

Curriculum has the power for social change in which what the society will be in the future. This reform usually resisted by many educators, but students' teachers prepared are ready for the change and implementing this change in their practices at schools.

The center of education and research development (CERD) is the main center to design the national curriculum and texts books. In addition, the center prepares inservice public teachers' training once a year, but it does not have any communication with private schools except with the use of the Ministry of Education, which inform the private sector about the new change in textbooks and curriculum.

Moreover, we can identify some recommendations to improve education quality for curriculum and recommend to be applied by the center of education and research development (CERD):

- A strong collaboration, alignment, and harmonization in activities offered to inservice teacher should be implemented between Lebanese University, CERD, and the Ministry of Education.
- Continuous assessment to public and private teachers to reinforce and improve teachers' practices.
- The follow-up of the teachers after the training is necessary for continuous reform of teachers to collect evidence on applying what they learned to improve students learning outcomes.

Finally, the improvement of working conditions for the CERD staff as for recruitment and assignment practices was very competitive and attracted professors, but nowadays, these conditions have not remained the same and need to be improved for better outcomes.

## Conclusion

After reviewing how mathematics teacher preparation in Lebanon is conducted and what the requirement for hiring are, we need to note four clear points; first, the information available suggested that public and private preparation programs are not meeting the expectations for hiring in Lebanon specifically the absence of government license at the end of the programs. Second, a strong basis exists in these preparations especially the one done by the Lebanese university regarding the mathematics content and pedagogy. Third, the lack of undergraduate programs at universities leaves the responsibility to prepare elementary mathematics teachers to only the Lebanese University, which represents a lack of competition to improve these programs. Fourth, the absence of the intermediate-level preparation of the mathematics teachers leaves a gap in these programs, which appear in the results of the students at the end of the intermediate levels or in the international tests.

After discussing the strong evidence of the correlation between teachers' high mathematical knowledge and achievement of the students, we suggest a collaboration between the departments of mathematics and the department in education to provide teachers candidate with higher mathematics content in addition to pedagogical learning provided by the department of education.

To conclude, the system of education in Lebanon is a national pride, and in particular, mathematics education receives full support socially and politically. Thus, Lebanese people are willing to invest in their children education especially mathematics education to ensure in their opinion scientific enrollment in tertiary education.

Regarding teachers' preparation, mathematics teachers like the rest of teachers are very qualified when graduating from the faculty of pedagogy at the Lebanese University, and they have the freedom to associate which provide diversity in education as different languages and international curricula.

Given the lack of evidence on the effectiveness of the private universities approached to prepare teachers, additional research is needed. Moreover, more institutions are needed to prepare teachers at all levels, in particular at the intermediate level for a better development of effective teachers.

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## **Chapter 17 EFL University Students' Perceptions of Offline Flipped Classroom in Yemen**



Morshed Salim Al-Jaro, Fatima Salem Balaswad, and Abdul-Qader Khaleel Abdul-Ghafour

**Abstract** Implanting student-centered and dynamic learning environment becomes more popular where most of the class time is given to students to interact, create, and receive instant feedback. This study aims to investigate the EFL university students' perceptions of offline flipped classroom in Yemen. It employed a mixed-method design where quantitative and qualitative methods were adopted for collecting and analyzing the data of the study. A five-Likert scale questionnaire consisting of 27 items as well as five open-ended questions were used to collect the data from 47 tertiary second-level students studying English at a public university in Yemen. The results of the study revealed the EFL students' positive perceptions of offline flipped classroom and the positive effect of offline flipped classroom on developing the students' writing skills. Furthermore, the findings showed that offline flipped classrooms assist the participants in understanding the writing course as it was implemented through their portable devices. Based on the obtained findings, the study recommends that the flipped classroom should be adopted in teaching and learning other English courses. The present study offers some practical implications which could be useful for English teachers, curriculum designers, and policy-makers in Yemen and perhaps in other similar EFL contexts.

Keywords Flipped instruction · Offline · Perceptions · Writing skills · Yemen

## Introduction

Flipped classroom is a form of blended learning that incorporates the use of technology where EFL teachers present video lessons for students to watch prior to the class and use the actual class time to leverage and facilitate the learning process (Chen, 2013). However, proper flipped learning is beyond mere reverse of lecture

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and homework time. Implanting this approach is meant to create student-centered, dynamic learning environment where the teachers provide guidance for each student as they apply concepts and engage with the topic of the lecture (Walker et al., 2020). Flipped learning was properly developed back in 2012 as one way to make the best use of face-to-face classroom time (Bergmann & Sams, 2012). The structure of the flipped learning experience enables students to focus on basic knowledge at home prior to the class time and dedicate the face-to-face time for interaction, creation, and receiving instant feedback (Walker et al., 2020). Tasks that deal with lowers skills on the Bloom's taxonomy: knowledge and comprehension are required from students prior the class time, usually at home, by for example, going through video lessons that contain direct instruction and taking notes. However, the students' presence in the class is devoted to deal with higher skills on the Bloom's taxonomy such as application, analysis, evaluation, and creation (Voss & Kostka, 2019).

A number of previous studies in EFL context have tackled various aspects of implementing flipped classroom on teaching–writing in countries such as Indonesia, Kuwait, Turkey, Iran, and Saudi Arabia (Afrilyasanti et al., 2016a, b; Ahmed, 2016; Alghasab, 2020; Ekmekçi, 2017; Özkurkudis & Bümen, 2018; Soltanpour & Valizadeh, 2018). The results of these studies showed that flipped classroom, compared to traditional methods, is significantly effective in improving students' writing proficiency, and their overall attitudes toward it. Moreover, it is believed that flipped classroom boosts students' motivation along with the level of engagement and creates a cooperative and focused learning environment.

Despite the rich literature on writing flipped classroom, it is not widely studied within the EFL Yemeni scope so far (Bin-Hady & Hazaea, 2020), where technological adaptations are necessary to ensure the students' access to the video lessons. Instead of sharing them via online platforms, they are shared with the students through flash drives and phone sharing applications. Therefore, this study attempts to fill the gap in a relatively little-researched setting through exploring the EFL students' perceptions toward offline writing flipped classroom. It could provide necessary information for EFL teaching– writing skills at Yemeni universities and offers some useful insights for similar EFL contexts.

#### **Theoretical Background**

The principles of flipped classroom approach are embedded in the underpinnings of Sociocultural Learning Theory (Soltanpour & Valizadeh, 2018), Vygostky's Zone of Proximal Development (Helgevold & Meon, 2015), Computer/Mobile-Assisted Language Learning (CALL/MALL) and its relations to learners' autonomy (Andujar et al., 2020; Forsythe, 2017), and Communicative Language Teaching (Spino & Trego, 2015).

According to Vygotsky's Sociocultural Theory (SCT), learning is a social process that requires a combination of instruction, interaction, and engagement with more capable individuals in a certain task (Forsythe, 2017). Learning occurs in a context

in which interaction amid students and teachers, instruments such as videos, books and planned activities exist (Soltanpour & Valizadeh, 2018). The interaction among learners who try to learn something new and more proficient speaker/s does not simply involve copying words or actions, but "a negotiation of meaning" (Forsythe, 2017, p. 7). The Zone of Proximal Development (ZPD) is a significant aspect of SCT, theorized by Vygotsky in 1978. It refers to the distance between the actual development of a learner through self-study and the potential development of a learner that can be attained through mediation "of settings, language, and other tools" by the teacher or a more proficient peer (Alghasab, 2020; Forsythe, 2017, p. 8). Through SCT viewpoint, development can only occur if mediation takes place within learner's ZPD (Alghasab, 2020).

Scaffolding, highlighted in terms of SCT and SLA, comprises creating social learning experience where more proficient learners or teacher use language and educational tools to help beginners develop. The level of the language that is meant to help beginners should be challenging for them; yet it should not be above their capacities to develop (Hamidi & Bagherzadeh, 2018; Lucas, 2013). In flipped classroom, the lessons are learnt outside of the classroom by the mediation of video files, audio, or printed material. Classroom time is dedicated to social interactions and practical organized activities. The teacher's role is to provide scaffolding to learners (Soltanpour & Valizadeh, 2018). Therefore, the tenets of sociocultural theory are aligned with flipped classroom approach.

Computer-Assisted Language Learning (CALL) is becoming a normalized part of the educational process (Forsythe, 2017). It relates to the use of computers or smartphones in the case of MALL: Mobile-Assisted Language Learning, in language learning (Andujar et al., 2020). Language classrooms now seek to incorporate new technology in hopes to create a twenty-first century classroom and even though flipped learning takes high advantages of CALL/MALL. Bergmann and Sams (2012) argue that "pedagogy should always drive technology" (p. 21), not vice versa. The integration of CALL and MALL in education gives learners more opportunities to develop their own autonomy, which refers to learner's ability to set goals, self-create opportunities to practice, and evaluate their own progress (Forsythe, 2017). Flipped classroom revolves around self-driven learning where learners can take control of their pace of their learning. Learners are expected to be able to make learning goals, make plans to achieve these goals, and evaluate their progress and achievements (Hamciuc & Roux, 2014).

The cornerstone of Communicative Language Teaching Approach is to use a language rather than to learn about it (Spino & Trego, 2015). In terms of SLA, learners in communicative classes are firstly exposed to sufficient input before they are put in situations that allow them to produce language and interact with their peers (Nghi, 2016). The defying aspect, as stated by Spino and Trego (2015), is "fitting in enough input, output, and interaction, particularly given the time constraints of a language class" (p. 3). Hence, flipped classroom exposes, in the case of communicative language class, the vocabulary and grammar to learners prior to the class. However, classroom time is principally committed to the learners' interaction and to the output production (Basal, 2015, Nghi, 2016; Spino & Trego, 2015).
# **Literature Review**

Writing is one of the English basic skills that students should learn during their different learning levels. Regarding the role of writing in English, "it is highly limited to public primary and secondary schools as students are generally asked to write guided and/or controlled paragraphs. The focus in writing classes is on the form of the written product rather than on how the learner should approach the process of writing" (Al-Jaro, 2018, p. 1). Learning writing skill has become more pressing for college students. Through writing, they are required to demonstrate comprehension and synthesis of what they learn via written assignments, examinations, essays, or papers. Out of the other language skills, writing improvement plays a significant role to the overall language development performance (Hyland, 2003). EFL students are expected to produce "cohesive, logical, clearly structured" (Fareed et al., 2016, p. 81) pieces of writing; nevertheless, they encounter many hindrances while working on tasks that involve writing (Ahmed, 2016; Al-Jaro, 2018; Rao, 2017). To organize coherent written pieces while keeping in mind the rhetorical conventions as well as having competence of the syntax and the structure of a second language is burdening to EFL students (Ahmed, 2016).

By the time EFL students are enrolled in the BA programs of Yemeni universities, they are expected to have completed six levels textbook series of English. The series is called "Crescent English Course for Yemen," and it is approved by the Ministry of Education. Even though the series was developed to be taught through Structural and Communicative approaches, the most common teaching practices include exclusive attention to teaching grammar and no consideration is given to communicative forms of language (Mohdar & Pawar, 2020). Therefore, EFL literacy studies in Yemen show that English majors face various challenges in acquiring and developing their literacy skills to meet the demanded expected level of proficiency in higher education (Al-Hammadi & Sidek, 2014). Besides, the majority of students are able to use the grammar rules within directed practice; however, they fail to apply them in spoken and written forms (Mohdar & Pawar, 2020).

A review of pertinent literature revealed that EFL Yemeni students suffer from a number of writing-related academic performance issues among which are misapplying grammar, improper punctuation, failing to generate ideas and getting started, problems of cohesion and coherence, and ineffective organization (Al-Jaro, 2016; Mohdar & Pawar, 2020).

For various factors, it is challenging to address specific reasons that lie behind the challenges that EFL Yemeni students face with writing skill. Firstly, there is the absence of shared outline of how and what to teach writing skill between Yemeni universities. Each university has its own vision on the number of writing courses (Abouabdelkader & Ahmed, 2016). For instance, the English department at a public university in Yemen offers five writing courses "Writing I, Writing II, Writing III, Advanced Composition, and Directed Research." Furthermore, in another university, reading and writing skills are taught within the same courses throughout four years. However, English department at another Yemeni university provides only two writing courses (I & II). Therefore, the lack of a unified pedagogical philosophy on teaching–writing has caused the English majors' improvement to be dependent on the quality of the department and teaching staff, who occupy the roles of "policy-makers, curriculum designers, developers or selectors, and teachers" (Abouabdelkader & Ahmed, 2016, p. 225).

Teaching–writing at most Yemeni universities are traditional ones (Abouabdelkader & Ahmed, 2016). These traditional teaching methods, such as lecturing as well as give less time and opportunities for students to practice due to the relative passivity of the students' role within traditional learning are considered less effective to teach writing (Abouabdelkader & Ahmed, 2016; Özkurkudis & Bümen, 2018). Additionally, writing skill instructional methods do not inspire students' critical thinking and creativity. Instead, these traditional methods encourage English majors to write for display but not to write for learning. Consequently, another issue is the lack of authenticity in students' writings since they are taught writing for the purpose of examination (Nasser, 2018).

Another form of the nature of the traditional writing teaching methods in Yemeni universities is the unemployment of technology-assisted methods (Abouabdelkader & Ahmed, 2016). Being instructors of English at Yemeni Public Universities, the researchers observationally attribute this to a number of reasons: to mention but a few the poorly equipped classrooms, lack of constant electricity, and the technological illiteracy or discomfort that some teachers may have. An additional reason behind that is the student and teachers' limited access to good Internet connection which makes it impossible to consider online teaching.

The multidimensional writing and environmental difficulties that face Yemeni EFL students are classified into linguistic, psychological, cognitive, and pedagogical categories (Fareed et al., 2016). This study is concerned with how pedagogical remedies can affect the way students perceive the facility of learning better. It becomes vital to implement pedagogies that provide remedies for these problems. Flipped classroom approach serves to illustrate as one effective way to provide students with opportunities to practice and develop their writing skills. This relatively new pedagogical approach functions primarily through reversed order of instruction time and homework time via the use of instructional videos (Soltanpour & Valizadeh, 2018).

Therefore, this study is expected to add to the field of knowledge by investigating the EFL students' perceptions toward their experience of the use of offline flipped classroom. Additionally, it would contribute to the body of knowledge by offering some valuable insights and practical implications for teaching–writing skills in the Yemeni context and perhaps in other similar EFL contexts in the Arab world.

Consequently, this study intends to answer the following main question:

What are the Yemeni EFL student teachers' perceptions toward offline flipped classroom?

# Methodology

This section provides the methodology of the study; it highlights the study design, population and sampling, data collection and data analysis.

# Study Design

The present study adopts a mixed-method design in which both quantitative and qualitative data were collected. This approach is adopted for the current study because it is suitable and helps achieve the objectives of the study.

# Population and Sampling

This study targeted 47 EFL tertiary second-year students from the department of English, at Yemeni Public University. They are female students who have the same cultural background. Arabic language is their first language and English for them is learned as a foreign language. They were taught the course Writing II using flipped classroom. This course is a three-hour credited course and has a prerequisite course: Writing I, which sheds light on writing paragraphs. However, Writing II focus is on writing short essays. Each class is flipped into three short video lessons with length that varies between 5 and 10 min each as recommended by (Bergman & Sams, 2012; Hsieh, 2017).

A number of pedagogical underpinnings were put into consideration while making the video lessons such as cognitive load theory and duality principle, which state that the working memory is limited. Therefore, information is processed easily when they are chunked into memorable parts (Ölmefors, 2016). Some of the videos were entirely made by the teacher. Sometimes other videos were taken from YouTube to fill some gaps. While many relevant videos could be found online, the videos were made by the teacher to provide deeper personal contact since they were created for certain audience (Fig. 17.1).

Moreover, authentic materials were added to the video lessons to be more relevant to the students' levels, interest, and identity. The videos were, then, shared with students through flash drives and phone sharing applications. The students were also informed to watch these videos, take notes, and write down questions they have before class (Fig. 17.2).

During class, their teacher started assessing students' learning of the videos content through asking some comprehensive questions. After that, the floor was opened for questions and discussions. The remaining class time was devoted to completing the exercises on the textbook in addition to the individual, pair, and small groups writing tasks as well as hands-on activities such as, send-a-problem,



Fig. 17.1 Screenshot of the writing video lesson



Fig. 17.2 Screenshot of the descriptive essay video lesson

team matrix, and think-pair-share. While students were working together on those tasks, the teacher circulated to provide assistance and feedback to students. By the end of each class, students were expected to produce a certain written task such as preparing their ideas and write a good thesis statement, or write the introduction paragraph of their essay. The following classes were conducted as a continuous workshop where students worked to improve something they wrote before, or shared it with their classmates/teacher for feedback, etc. Due to the small number of the population, all the available students were selected as the study participants as proposed by Creswell (2002). However, only 47 participants (85.45% of the whole population) who responded to the study data collection instrument constituted the sample of the study.

#### Data Collection

A questionnaire was used to explore the EFL students' perceptions toward their experience in the offline writing flipped classroom and the challenges they faced. Thus, the utilized questionnaire in this study includes two parts. Part A which is adapted from some previous studies such as (Alasmaria, 2020; Alghasab, 2020; Bin-Hady & Hazaea, 2020; Johnson, 2013) contains 27 items related to seven areas: flipped classroom (4 items); writing skills (9 items); individual differences (2 items); accessibility (3 items); active learners (4 items); and videos (5 items). The respondents are required to read the items carefully and respond to a five-point Likert scale. However, Part B includes five open-ended questions to elicit more information on the EFL students' perceptions toward the use of offline flipped classroom regarding writing skills, the challenges encountered, and their comments and suggestions on their experience.

Prior to distributing the questionnaire to the study participants, a panel of five experts was consulted to review it in order to ensure the validity of the study instrument. Those experts are PhD holders in EFL/ESL teaching affiliated to a number of EFL teacher education institutions in Yemen. The suggested comments and were considered to refine the final draft of the questionnaire.

The questionnaire was finally distributed in person to the study participants. They were guided and provided with necessary instructions to respond to the questionnaire. They were also informed that their responses will be confidentially kept and used only for academic purposes. Furthermore, their names were anonymous and did not appear in the study findings report. Therefore, confidentiality and anonymity were maintained. To ensure the instant return of all distributed questionnaires, the participants were given enough time to respond (45 min) during one of the offline flipped classrooms.

# Data Analysis

The data of the present study were analyzed quantitatively and qualitatively. The students' responses to the first part (Part A) of the questionnaire were statically analyzed using the SPSS version 24. The descriptive statistics (i.e., means and standard deviations) were calculated for all items. Thus, the scale variables were coded: strongly disagree (AD) "1", disagree (D) "2", undecided (UD) "3", agree (A) "4", and strongly agree (SA) "5". All the statements of the questionnaire are positively attributed and given grades 1–5. Thus, the agreement ranges are determined and

Strongly disagree	Disagree	Undecided	Agree	Strongly agree
1-1.80	1.81-2.60	2.61-3.40	3.41-4.20	4.21-5.00
Very low	Low	Medium	High	Very high

Table 17.1 Range of statements

followed with the use of the formula (n - 1)/n after calculating the interval width of the range between 1 and 5 as 0.8 (Abedalaziz et al., 2013). Table 17.1 illustrates the ranges in the questionnaire:

Table 17.1 shows the interval width of the ranges. Therefore, statements which score above than the mean (3.40) were counted positive. However, statements which score less than the mean (2.60) were counted negative.

Besides, the participants' responses to the second part (Part B) of the instrument were qualitatively analyzed using the thematic analysis. The participants' written responses were read many times to generate codes. The generated codes were reviewed and then classified into categories and finally into themes. Four main themes were emerged from the qualitative analysis, namely accelerate learning, continuity, implementation to other courses and challenges. The following section will present the findings of the study.

# **Results and Discussion**

# EFL Students' Perceptions Toward the Use of Flipped Classroom

Table 17.2 shows the findings of the participants' perceptions toward the use of flipped classroom.

Item	N	Minimum	Maximum	Mean	Std. Deviation
1. This is the first time I learn writing using flipped classroom	47	2.00	5.00	4.8511	0.50985
2. Writing flipped classroom facilitates the way I understand the writing class	47	1.00	5.00	3.8511	0.85919
3. I become more active in writing flipped classroom than in the traditional classroom	47	1.00	5.00	3.9787	1.11295
4. I was given greater opportunities to communicate with my classmates during writing flipped classroom	47	1.00	5.00	3.9787	0.98884
Total				4.1649	0.58810

Table 17.2 Descriptive statistics of participants' perceptions toward the use of flipped classroom

The analysis of the responses of the items 1, 2, 3, and 4 of the questionnaire showed that the students had positive perceptions toward the use of flipped classroom. This is indicated in the total mean score (4.16) of the first four items. A closer investigation of this result revealed that the majority of the students agree that flipped classroom facilitated their understanding of the writing classes (3.8), helped them to be more active (3.9) and communicated during the writing classroom (3.9) though almost all of them have learnt writing using flipped classroom for the first time (4.85). This indicates that they preferred this technique to the traditional classroom implemented in other classes.

The obtained findings (i.e., the students' perception toward the use of flipped classroom) were consistent with those of Johnson (2013), Ölmefors (2016), and Pudin (2017). Their results revealed that most students perceived flipped classroom as an enjoyable environment that appealed their preference. Results discussed by Johnson (2013) disclose that the majority of the participants considered flipped classroom overwhelmingly positive, and that it provides an encouraging environment to learn. Ölmefors (2016) reported that the majority of the participants did feel some positive effects in forcing themselves to prepare before class. Pudin (2017) stated the participants said that the majority of the students enjoyed flipped classroom more than the traditional one.

Contrarily, the participants in studies done by Strayer (2012) and Alasmaria (2020) provided somewhat less positive opinions about flipped classroom. In Strayer (2012), participants expressed dissatisfaction toward the structure and the classroom learning tasks of the flipped classroom (as cited in Lee & Wallace, 2017). While Alasmaria (2020) records that negative attitudes were measured as 90% of the participants, the flipped classroom is considered less beneficial than an ordinary classroom. Alasmaria attributes such negative attitudes to the different learning styles of students within various cultures.

# *EFL Students' Perceptions Toward the Benefit of Flipped Classroom on Writing Skills*

Table 17.3 shows the mean scores of the participants' perceptions toward the benefit of flipped classroom on writing skills.

Items number 12 and 13 scored very high mean (4.4 and 4.23, respectively) which indicated that most of the participants are satisfied with the format and structure of the learning materials presented on the video lessons, and they feel comfortable during the writing flipped class because of the preclass preparation. Items 5 to 10 scored high means which means that the offline writing flipped classroom would help the participants to improve their writing skills (3.5), generate ideas on the assigned topic (3.5), learn various writing strategies (3.8), easily and conveniently practice writing at home (3.6), and receive instant feedback (3.8). However, item number 11 receives a medium mean score (3.3) which indicates that offline writing flipped classroom

Item	Ν	Minimum	Maximum	Mean	Std. Deviation
5. I think that writing flipped classroom would improve my writing skills	47	1.00	5.00	3.5745	0.80067
6. Writing flipped classroom helped me to generate ideas on the assigned topic	47	1.00	5.00	3.5957	0.90071
7. Writing flipped classroom helped me to learn various strategies of writing	47	1.00	5.00	3.8723	0.67942
8. Writing flipped classroom makes it easier for me to practice writing at home	47	1.00	5.00	3.6170	1.15256
9. Writing flipped classroom makes it more convenient for me to practice writing at home	47	1.00	5.00	3.6383	1.20552
10. Writing flipped classroom allows me to receive instant feedback	47	2.00	5.00	3.8511	0.88413
11. Writing flipped classroom allows me to receive sufficient feedback	47	2.00	5.00	3.3191	0.93498
12. I am satisfied with the format and structure of the learning materials presented on the video lessons	47	1.00	5.00	4.4468	0.85487
13. I feel comfortable during the writing flipped class because of the preclass preparation	47	2.00	5.00	4.2340	0.78610
Total				3.7943	0.52166

 Table 17.3
 Descriptive statistics of participants' perceptions toward the benefit of flipped class-room on writing skills

allows participants to receive feedback, but it might sometimes be insufficient. Moreover, the total mean (3.7), which is relatively high, indicates that the students have positive perceptions toward the influence of the offline writing flipped classroom on writing skills.

A closer look at the results of (Alghasab, 2020; Destian, 2019; Rad et al., 2021) shows that similar findings have been found. Destian (2019) reported that the employment of flipped classroom was proven to be effective to enhance the EFL students' performance in writing skills. Additionally, the majority of students showed their development in three elements of writing skills, which are coming up with ideas and content, organization, and conventions. Likewise, the results presented by Alghasab (2020) suggest that learners have said that flipped classroom increased their motivation and helped them improve their writing skills. By the same token, Rad et al. (2021) worked to apply a discussion-orientated model of flipped classroom and sought to reveal its effect on the learners' performance in writing skills. Their results brought to light that learners performed better in flipped classes in terms of writing performance.

Item	N	Minimum	Maximum	Mean	Std. Deviation
14. Writing flipped classroom gives me enough time to translate new words in the video lessons prior to the class	47	1.00	5.00	4.1489	1.08305
15. I sometimes face a difficulty in understanding the language of the videos	47	1.00	5.00	2.7660	1.14612
Total				3.4574	0.64124

Table 17.4 Descriptive statistics of participants' perceptions toward the individual differences

#### EFL Students' Perceptions Toward the Individual Differences

Data analysis in Table 17.4 shows that the EFL students' perceptions toward the language used in the offline writing flipped classroom reached a relatively high mean score (3.4). Item number (14) receives a high mean score (4.1). However, item number (15) receives a medium mean score (2.7).

This result indicates that flipped classroom is compatible with the students' individual differences and allows each student to learn at her own pace. Students who suffered from understanding difficult words, for example, had enough time to translate them prior to the class. Nevertheless, it can be observed that students faced challenges in understanding the overall language in the video lessons. This result is consistent with the results of Afrilyasanti et al., (2016a, b) and Mubarok et al. (2019) in terms of the fact that flipped classroom can facilitate learning and improve writing skills for students of all academic levels. Afrilyasanti et al., (2016a, b) presented in their results that flipped classroom accommodates the students' different learning styles and needs. Mubarok et al. (2019) reported that flipped classroom has an effect on improving students' writing across cognitive styles, therefore improving the students' learning.

# EFL Students' Perceptions Toward the Accessibility of the Video Lessons

Data analysis in Table 17.5 shows that the EFL students' perceptions toward the accessibility of the video lessons in the offline writing flipped classroom registered a high mean score (4.17) which indicates that they have positive perceptions toward the accessibility of the video lessons.

A closer look at the result of items 16 and 17 shows that the majority of the students strongly agree (4.38) with getting the video lessons through flash drive and/or phone sharing applications was convenient to them and getting access to these video lessons using their phone (4.25). In addition, the result of the item 18 shows that most of the students (3.7) were able to smoothly play these video lessons.

Item	N	Minimum	Maximum	Mean	Std. Deviation
16. It was convenient for me to get the video lessons through flash drive and/or phone sharing applications	47	2.00	5.00	4.3830	0.70874
17. It was always easier to get access to these video lessons using my phone	47	1.00	5.00	4.2553	0.94335
18. The video lessons were played smoothly and no technical problems with my device	47	1.00	5.00	3.7447	1.29326
Total				4.1277	0.63533

 Table 17.5
 Descriptive statistics of participants' perceptions toward accessibility

Lee and Wallace (2017) consistently suggested that issues of access to video lessons should be avoided. Several suggestions were provided to deal with access issues, such as reserving space in the educational institute's computer laboratory where students can watch the assigned videos, and considering replacing online videos with printed and/or animated PowerPoint presentations that can be easily shared with students via flash drive. To implement flipped classroom effectively, educators who work with limited resources need to secure students' accessibility to the videos; otherwise, it might affect students' performance negatively by encouraging off-task behavior (Johnson, 2013; Lee & Wallace, 2017).

#### EFL Students' Perceptions Toward the Active Learning

The analysis of the participants' responses to items 19, 20, 21, and 22 of the questionnaire, as shown in Table 17.6, reveals that they have positive perceptions toward the active learning. This is clear from the total mean score (3.29) of the following four items:

The analysis of the items in Table 17.6 showed that the majority of the participants feel comfortable with learning independently through offline writing flipped classroom (item 21) and watching the videos at home without being able to ask their teacher (item 19) with high mean scores (3.8 and 3.5, respectively). Thus, some of them were able to do most of the writing assignments after writing flipped (item 22 with a medium mean score 3.2). Additionally, item 20 registered a low mean score (2.5) which indicates that they did not feel completely lost while watching video lessons prior to writing flipped classroom. This could be inversely interpreted that they actively involve themselves in the learning tasks through watching these video lessons before they come to the class.

This result is consistent with the results of Basal (2015) and Kawinkoonlasate (2019) in terms of the fact that flipped classroom improves learners' engagement and creates an interactive learning environment where students are responsible for their learning. Basal (2015) reported that learners had found flipped classroom to be more

I I I I I I I I I I I I I I I I I I I	L	I I			0
Item	N	Minimum	Maximum	Mean	Std. Deviation
19. Watching the videos at home without being able to ask my teacher makes me nervous	47	1.00	5.00	3.5745	1.11793
20. I feel completely lost while watching video lessons prior to writing flipped classroom	47	1.00	5.00	2.5319	1.03946
21. I feel more comfortable with learning independently through writing flipped classroom	47	1.00	5.00	3.8085	1.19124
22. I can do most of the writing assignments after writing flipped classroom	47	2.00	5.00	3.2553	0.73627
Total				3.2926	0.42771

Table 17.6 Descriptive statistics of participants' perceptions toward the active learning

active, and that their roles are less passive, which paves them to take control of their learning. Similarly, Kawinkoonlasate (2019) reported that learners' involvement in problem-solving or partaking in other kinds of active learning tasks can assist them "to actualize and assimilate their new knowledge" p.25, instead of being passive knowledge receivers.

# EFL Students' Perceptions Toward the Videos

Data analysis in Table 17.7 shows that the EFL students' perceptions toward the content of the video lessons registered a high mean score (4.16) which indicates that they have positive perceptions toward the content of the video lessons.

Item	Ν	Minimum	Maximum	Mean	Std. Deviation
23. I find the length of the video lessons acceptable	47	1.00	5.00	4.1702	0.93992
24. I think the video lessons would help me write better essays	47	1.00	5.00	4.0213	0.73690
25. The video lessons guide me while I write essays as home assignments	47	2.00	5.00	4.1064	0.75855
26. I find the video lessons interesting	47	3.00	5.00	4.4255	0.68349
27. I enjoy watching the video lessons prior to writing flipped class	47	1.00	5.00	4.1064	0.93795
Total				4.1660	0.49751

 Table 17.7 Descriptive statistics of participants' perceptions toward the content of the videos

A closer look at the result of five items (23-27) shows that the majority of the students strongly agree (4.4) that the video lessons were interesting (item 26). Moreover, they agree that the length of the video lessons was acceptable (4.1), helpful to write and guide them during writing their assignments (4.02 and 4.10), and they enjoy watching these video lessons prior to the offline writing flipped class (4.10).

This result is consistent with the results of Clark and Mayer (2016) in terms of the fact that videos are suitable input medium to guide students' self-study. It is stressed that certain pedagogical principles have to be considered while making videos for a flipped class, such as suitable length, suitable amount of content that is not considered as cognitive overload (Clark & Mayer, 2016). Yet, videos are not the only possible input medium in flipped classrooms. Printed texts and audio records could also be used (Bergman & Sams, 2012). Having said that, it is argued by that videos are the most favored medium by learners (Cockrum, 2014).

In section (B) of the questionnaire, the EFL students also reported other perceptions toward the use of flipped classroom. Four broad themes were identified from their responses including accelerate learning, continuity, implementation to other course and challenges. The following sections will highlight these themes with some evidences from the students' responses.

# Accelerate Learning

The majority of the students expressed their perceptions toward the use of flipped class strategy in accelerating their learning. They revealed that this strategy helped them in understanding the writing course in various ways. For instance, because of the availability of the material, the flipped classroom assists them to refer and prepare for the class. This is indicated by one of the students as follows:

Flipped class gives me sufficient time that I need to understand the videos, and I can watch the videos any time.

Furthermore, the flipped classroom strategy allows the students to go back and retrieve any point that they have missed or forgotten. This is reported by another student who responded by saying:

In lectures, I sometimes miss some information, and I can't get it. However, in the flipped classroom, I can watch the videos and repeat any part that I don't focus on it during class.

Furthermore, watching videos seemed to be interesting to most of the students as they can watch whenever there is a need to clarify some points. The following excerpts are quoted from the students' responses:

The videos helped me a lot because I can watch it many times and this makes it easier for me to understand and write notes.

Another student stated:

I always feel like I understand better when I'm learning alone. Being comfortable at home makes the lesson stuck on my mind. Also, watching the videos more than once helps me correct my mistakes.

Additionally, some students prefer the flipped class strategy to the regular writing classroom as the material of the flipped classroom is obtainable and assists them to refine their knowledge. This is indicated in the following excerpt:

Comparing with regular classroom learning, if I learn some new information but with a mistake, it remains in my mind. However, in the flipped classroom, the video with instruction is available any time.

# *Continuity*

Most of the students would like to continue taking this course using flipped classroom because they think it provides motive to study before class and facilitates the way to write their assignments. The following excerpts are taken from the students' responses:

I'd like to complete this course with this strategy because it helps me to improve my writing and my own vocabulary.

Another student stated:

Yes, it is different from other classes and its more fun.

A third student added:

Yes, it is more interesting, and I can take my time in writing the assignment at home.

However, some other students found that watching the videos before the flipped classroom requires longer time. This is indicated in the response of one of the students who said:

Not really, because it took most of my time. I prefer to have a writing essay exercise more, so I can improve my writing ability.

Similarly, another student expressed that she did not receive sufficient explanation, and she sometimes felt confused. She said:

I want to continue in this way, but I think we want to practice writing well and more assignments should be given in the class.

# Implementation to Other Courses

Although the majority of the students expressed their interest in experiencing this strategy to learning writing, they had variant opinions toward implementing it to learning other courses. The first opinion stressed tha importance of the flipped

classroom for learning other courses. Students think that this strategy would save their time when they are studying from videos compared to books. In addition, they found it more exciting than traditional method, and students become energetic in the class. In the other hand, some students would not like to recommend implementing flipped classroom for learning other courses because they thought that every course has appropriate techniques for its teaching. Moreover, they assumed that flipped classroom is only suitable for teaching skill courses. One student explained that by saying:

I don't recommend implementing this strategy to teach other courses, because, I think, some courses have [too much] information which would take longer time to watch [as videos] and take notes form, at home.

However, some student respond neutrally and they refer that to the nature of the course itself. This was indicated in the following excerpt:

It depends on the course, may be not all the courses can use this kind of method. It was great and I enjoyed it, but, for other courses, I don't know how it could be used. I couldn't imagine this!

#### Challenges

During their experience in learning writing skills through flipped classroom, students encountered a number of challenges which might limit their progress during this course. One of these challenges is managing time. Some students expressed that they spent longer time in watching the videos, and they might be distracted by social media applications on their devices. So, they cannot focus on their tasks. Technical problems with the students' devices were also reported by some students during this course such as out of charging mobile phones, low storage capacity, and broken down devices. Besides, some students were still facing a difficulty to generate ideas and get started on a writing assignment. This is indicated in the following excerpt:

I don't encounter any difficulty in understanding the subject, but I have problems in expressing myself. So, writing the assignment is a little bit difficult.

Similarly, the same difficulty is expressed by another student who said:

When I want to write, I feel lost. When I start writing, I go on, but when I finish and read what I have written, I feel disappointed because of faults and mistakes.

In the same vein, the students revealed some comments and suggestions based on their experience with writing flipped classroom. Most of them expressed the need for adding more explanation to the videos and in class writing practice. The following excerpts are taken from some students' responses. One student stated: "It would be better adding more examples and exercises to the videos." Another one reported: "giving us a model example for each type of essays and explaining all details." A third student explains her need for more in class practice to improve her writing skills. She wrote: I did see it well yet, but I want you to give us more assignments in class because when I go home, I can't write well like the class. I think more written tasks help us to avoid our mistakes in spelling and structure of sentences.

A fourth student requested more in class practice to improve her ability in writing. She added:

If it possible, try to give us an in class exercises in each class to train us to write paragraphs smoothly and to make it easier for us to write essays in future.

# **Conclusion and Implications**

The present study investigated the EFL university students' perceptions of offline writing flipped classroom in Yemen. The study revealed that the EFL students have positive perceptions toward their experience of the use of offline flipped classroom in learning writing skills. Furthermore, the findings showed that offline flipped classrooms assisted the EFL students in understanding the writing course, and it could be implemented in teaching and learning some courses. Additionally, the study reported some challenges encountered by the EFL students during their experience especially with their portable devices.

Based on the obtained findings, the study recommends that the flipped classroom should be supplied with supplementary materials that would provide the EFL students with sufficient details and assist them to do their in-class written assignments. On an instructional level, the present study supports the notion that considering the participants' perceptions and live experience may locate their encountered challenges and find urgent remedy. Therefore, there is a need for supplying the EFL classrooms with technological devices to promote the desired outcomes.

In conclusion, the present study is subjected to some limitations such as the sample size and sampling process, and the results cannot be generalized to other settings. Therefore, interested researchers are recommended to carry out similar studies on other EFL contexts with larger samples. Another limitation is the study design and the adapted data collection instrument. Hence, further studies are suggested to deeply examine the effect of the offline flipped classroom and the applicability of implementing this strategy in teaching and learning other courses. Moreover, further experimental study is suggested to examine the effect of offline flipped classroom on learning writing skills. Such research might offer some valuable findings and realities that could contribute to the professional development of EFL tertiary teaching and learning. Regardless of the above-mentioned limitations, this study provides some practical implications which could be useful for EFL instructors, curriculum designers and policy-makers in Yemen and perhaps in other similar EFL contexts.

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# Chapter 18 **Understanding Different Modes** of Teaching the Genetic Material (DNA) **Topic for Middle-School Students**



# Mahyoub Bzour, Fathiah Mohamed Zuki, Muhamad Mispan, Mohammed ELTurk, and Muiz Shalbak

**Abstract** An analysis of the students' achievement for teaching the genetic subject was done to determine the extent of the understanding of this important topic in the different ways of learning. The study employed an experimental design research where Grade 10 students in a secondary school in Raba-Palestine were exposed to three different approaches. A validated posttest tool with diverse questions was used by the study. Empirical findings from the study revealed that there was a good improvement of the students' understanding from a medium understanding in the traditional way to a very good understanding in the new one (modeling-based approach). The study revealed that the incorporation of lesson elements such as used drawing, polystyrene sheets, and plastic cubes challenge significantly improved students learning engagement, achievement, and attitude toward learning biology led to a high understanding of biological concepts. It was recommended that teachers should make improvements both in terms of teaching methods in school and rely on traditional one.

Keywords Genetic material · DNA · Teaching · Modes · Traditional · Intervention

# Introduction

Every student has the right to learn diverse knowledge and skills. Education is a process through which information is transferred to the recipient or the student, so that he acquires various experiences and skills, in addition to gaining the ability to transfer that information to other individuals. It is an organized process that aims

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to build individual personality and to achieve specific goals. The right of an individuals to education has been recognized since 1952 as first protocol issued by the European Convention on Human Rights. All children can learn in an inclusive environment regardless of their differences in culture, gender, language, and ability (Savolainen et al., 2011). Education affects the improvement of various life conditions, including economic fields, and this comes through the development of the capabilities, competencies and qualifications of individuals that are required by the labor market, as education adds to the individual several experiences in various fields, including personal experiences and multiple experiences that work to prepare the individual to keep pace with market developments work with his various technical or scientific skills. Education itself is based on diversification in teaching. Teachers should change their styles in the cognitive backgrounds that they want to teach or in the way they are taught, and the diversification of teaching is a process of innovation in multiple ways for students of the school class with different abilities and interests, to understand and absorb the students of the class to the educational material. Naylor et al. (2015) reported that the lack of a holistic preparation model leads teachers training institutions to criticisms. Moreover, Mkhasibe, (2018) showed that many teachers are unable to do their works as would be expected by the training institutions and the schools where knowledge is imparted to add value and improve learner performance and experiences. In addition, these styles facilitate participation, motivation, and make subjects relevant to the student (Montgomery & Deery, 1997).

In the same vein, (Bruce & Ross, 2008) showed that "there is an indirect but powerful relationship between increasing teacher efficacy and increasing student achievement." As students need to diversify teaching styles and methods in educational situations, students do not learn in one way. And that every student has varied intelligences that God gives on each person, some of which are high and some are low, meaning that all students have intelligence but it is different. The successful teacher chooses and applies a variety of teaching methods and strategies to enhance students' learning and relate it to their real-life situations (Brahier, 2016). In addition, uses types of explanation and presentation techniques that clarify key concepts of the material and relate it to students' prior knowledge. The old methods depend on simple planning that does not fulfill the purpose of learning and does not meet their basic needs in the education process, and they put the student in the place of reception. It is goal that can be achieved is the extent to which the student saves the information, and the teacher depends on the method of delivery, and there is no role here mentioned for the students. The student is asked to focus on the sense of hearing and sight, so the teacher explains on the blackboard, the student listens to the teacher and conveys what the teacher writes, and thus, the learning process is free from interaction between the teacher and the student and between the students themselves. On the contrary, the modern way in teaching relies on understanding, innovation, and creativity. It has relied on the use of multiple tools, and the class interaction increased. The interaction between the teacher and the students where the use of cooperative learning or active learning. In addition, it takes into account the differences between students, and each educational level has its own method of teaching.

Therefore, understanding concepts and the mode of teaching constitutes one of the factors that could affect the students' acquisition of scientific concepts, especially biological concepts Department of Education, 2016. One important aspect of learning including biology learning is the concepts being this learned. Genetics is an important topic for teachers in schools. Genetics is seen as the basis for understanding and developing biological sciences or other sciences related to biology (Sukmawati & Permadani, 2021). It is one of the difficult subjects that many students complain about in the class because it contains many difficult scientific concepts (Kristiani et al., 2020). It supplies access to many fields such as the decryption of specific disease patterns in medicine, the development of customized and effective medication, and increased understanding of genetic conditions on our behaviors (Mierdel & Bogner, 2019).

Therefore, this leads to shift up the alienation of students from school and leads to a high dropout rate in school. Teaching the scientific subjects in schools, especially the biology topic in particular requires wisdom and a good advance preparation for the teacher to use the scientific laboratory and laboratory experiments carefully. Failure to support the scientific material in the classroom by producing educational aids to increase the students' scientific knowledge leads to a failure to understand the scientific material. From here, in this paper, a comparison was made between two methods of teaching genetics in the tenth grade. Many studies have been done about the use of diverse modes of teaching. The importance of variety in teaching process leads to motivate the students better conceptual understanding (Wood, 2020).

This paper shows (1) the importance of adequate training and qualification for teachers in choosing appropriate tools and methods for presenting scientific material and (2) aims to find the extent of understanding of using the three modes of teaching, namely (a) old classical mode, (b) partner mode (the student and his neighbor), and (c) cooperative mode (five homogeneous students in the group). The results of the study could provide insights into relation to how these modes of learning enhance the understanding of students in schools and in love science in general.

#### Methodology

The target students is exposed to different teaching–learning mode mode called (the first way is the classical lecture way (the student just recipient), the second way is establishing a partnership with a colleague on the class seat, through which experiences and knowledge are exchanged between them, and the third one is called (modeling-based approach), which use diverse method of learning as watch video related to subject, student partnership in the representation and drawing. The research tool used in the study was a posttest evaluation related to the learning materials. The tool was content validated by two teachers, experts in the field of science and biology education. Also, the tool was pilot tested to a comparable group of tenth grade students, subjected to reliability test and obtained a reliability coefficient equals to 0.83, indicating a good and acceptable reliability.

The 10th grade students were 58; all are male present in two classes (class: A, 25 students and class B, 24 students). Class: C was randomly selected from the two combined classes by using numbered paper cards. Then, the class: A consisted 19 students; class: B consisted 20 students; and class: C consisted 19 students. Therefore, the target students is class: C 19 students that we will use the new mode mode of teaching (modeling-based approach). These students are from Raba secondary school in Qabatia directorate, Palestine. These students are homogeneous in terms of age, marks average, same housing, same school, same teachers, and economic conditions. Class: A were to learn the topic with classical way (traditional method) and the other section class: B were learn with the (partnership method) of assistance between the student and his classmate and the exchange of knowledge and information related to the content of the subject, The class: C were teach with modeling-based approach.

The subject of genetics (DNA topic) will be chosen from the biology subject because of its special importance in the coming classes and also constitutes the base in scientific disciplines at the university such as medicine, nursing, veterinary, medical analysis, agriculture, and other disciplines. Those students were already had the DNA topic in biology course in 8th and 9th grade level in the same school. All the chosen students in this study (Class: C) were numbered with  $C_1$ ,  $C_2$ ,  $C_3$ , etc., the second Class: B were numbered with  $B_1, B_2, B_3$ , etc., and the classical one (Class: A) were numbered with  $A_1, A_2, A_3$ , etc. The formal permission was obtained from the principal of the school, who in turn informed the directorate with this research. The tool consists of 20 items, which are divided into five parts. These parts correspond to the five postulates of the genetic materials topic, namely nucleotide, gene, chromosome, genetic code, and transcription. Each of these term was evaluated through, where students explain the situation in terms of definition, construct an illustration showing the connection between these, and infer the relationship between variables and solve questions using math's equation for the unknown variable. In this way, the tool consists of open-ended, multiple choice, and drawing questions that capture the multiple representations of the concepts learned in biology lesson.

At the beginning, students were encouraged and motivated to start the unit with an excellent introduction to the importance of this educational material in the next phase of the 12th grade. The scientific laboratory was used in addition to the classroom. Polystyrene sheets and cubes were used to build models for: chromosome, DNA, transcription, translation process, protein building, and comparisons between DNA and RNA, etc. After end the limited period for the unit of biology, the students took the posttest which has been put and evaluated. Analysis of the posttest was done immediately. In this study, we used the validated scoring rubric design: 0.1–1.00 (Poor, P); 1.10–2.50 (Fair, F); 2.51–3.00 (Good, G); 3.10–3.50 (Excellent).

In addition, we investigated how students explain some definition-related macroscopic genetic phenomena occurring in the cellular organisms. We placed students' responses regarding the three phenomena into three groups (mother, flower, and fungi) and one on the macrolevel. (A) Microscopic category (molecular): students' responses used concepts such as DNA, chromosomes, nucleotide bond, and genetic materials. (B) Macroscopic category: students' responses showed an explanation of terms such as "trait," and gens.

# **Results and Discussion**

The students' performance in the three modes of learning was achieved from the posttest results of the students. The important analysis of the students' performance is shown in Table 18.1.

From the results in Table 18.1 that the extent of the students' understanding on nucleotide and gene is high in the three mode of teaching with some differences, but in general seems good. It is possible that these concepts are important and constitute the main key to the beginning of the topic for the unit in the biology book, so most students focus on these concepts by memorizing them to a large extent, and this depends on the student mainly only with the motivation of the teacher. In addition, these biology topics in the curriculum make it difficult for students to do meaningful learning; they are more motivated to simply memorize the material (Kristiani et al., 2020). However, in comparison with the third concept (chromosome), we noted that modeling-based approach was achieved the best result then the partnership approach, and finally the classical approach. In so far as, because the modeling approach depends on the drawing and forming, moreover, the students in class: C focus on this type of idea, especially in the laboratory of the school. As a result, this gives the students long memory and best understanding for this type of concept.

While on the others concepts (genetic code and transcription.), we noted, the highest is the modeling approach. As so far as, this could be due to the usage of diverse methods of learning in the lab and class and go far from the classical daily routine. As example when we used drawing on the cartoon, playing games (Millstone, 2012). For polystyrene sheets and cubes in representing the DNA and the transcription method, see Fig. 18.3; this gives high impression and high understanding to the students

Topic	Mode									
	traditional method approach		Partnershi approach	р	modeling-based approach					
	Mean <sup>a</sup>	SD	Mean <sup>a</sup>	SD	Mean <sup>a</sup>	SD				
Nucleotide	2.77 (G)	1.32	2.78 (G)	1.22	2.55 (G)	1.98				
Gene	3.11 (E)	0.92	2.88 (G)	1.31	3.11 (E)	2.25				
Chromosome	2.44 (F)	0.56	2.77 (G)	1.22	3.44 (E)	0.80				
Genetic code	2.43 (F)	1.31	2.88 (G)	1.55	3.33 (E)	0.88				
transcription	1.00 (P)	1.52	1.10 (F)	1.33	2.51 (G)	0.94				
Overall	10.95	1.127	2.42	1.32	3	1.37				

Table 18.1 Student examination results in the three mode of learning

<sup>a</sup>E (Excellent), G (Good), F (Fair), P (Poor), SD (standard deviation)

for long time making them use the imagination and stimulation for the memory. In addition, using these models in teaching makes the students be more motivated, and love the topics because when they mimic the process as an example transcription process, thus, the understanding increases in comparison with the other two methods.

The results showed that the students head for to be better at representing the genetic model of the concept of genetics through drawing and explanation than through writing the concept only. In addition, Chen and Shou (2018) pointed that the While competition in the class might prove to be an important feature that bolster students engagement and motivation. Through images and explanations about a concept, students can reveal what is known and understood in the class. Drawing and representing the concepts in the test is the most widely used technique by teachers and researchers to evaluate the students' concept understanding in the class (Jalmo & Suwandi, 2018). It was noted that the excellent explanation used by some students in defining and explanation these concepts was scientific terms. Some of these terms are shown in the student's answers, for example, of  $C_3$ ,  $C_{12}$ , and  $C_7$  below.



 $*C_3$  student answer:

Gene: It is a section of genetic material (DNA) that contains essential information for the development of an organism.



 $*C_{12}$  student answer:

Chromosome: Filamentous structures found inside cells of an organism, which consists of two chromatids that bind with centromere carry genetic material (DNA).

DNA DNA > MRNA AUGAUCU ACTA GC The transcription method (RN ucG AUG AUC Tran meth Heth pHde

 $*C_7$  student answer:

The DNA transcription and translation process diagram.

Approximately, more than 85% of the C: class students succeeded in explanation, defining, and drawing for genetic concepts. It seems that the influence of a modelingbased approach on students' understanding was very clear in these concepts (Table 18.1) which could play a big role in scientific inquiry and communication in the outcome of student's results in the future. Moreover, in the case of the topic on chromosome, students only got a fair understanding using the classical method. The low understanding on this item might be due to this traditional method of teaching which relies on memorizing most of the time without the teacher using effective methods of teaching and showing what the concept is and simplifying it in a wonderfully simplified way for students without complexity and alienation from the concept. When the student uses other senses to see the concept, as example videos, it is possible to simulate this concept in the classroom using various materials; it leads to the concept being firmly established for a long time and ease of retrieval and remembering in the exam.

It is interesting to note from the table above that, the fifth concept, which is transcription, we note despite having a fair rating in classical method, the students obtained a good understanding in the partnership method and excellent result in the modeling-based approach. The method of participating in the class (a classmate in the classroom) gives a kind of break from the daily routine to the student as well and gives a space of freedom, self-confidence, and exchange of information among students. This method is no less important than the third method (modeling-based approach), and also in many cases, the student in the class sometimes does not understand the concept from his teacher and may quickly understand it from his classmate in a simple and uncomplicated way. In my opinion, the student may be embarrassed and he cannot ask the question more than once, while he can ask his classmate many times without any embarrassment.

The result of the score distribution of the students for the traditional method approach, the mean score is 6.88, median 7, mode of 7, and standard deviation was 1.26. Moreover, the mean in the partnership approach score is 7.78, median 7.3, mode of 7, and standard deviation was 1.46 whereas, the results of students in modeling-based approach, the mean is 8.04, median 8, mode of 8, and standard deviation was 0.82.

From these scores, it can be inferred that students scored higher using the modeling-based approach compared with the traditional and partnership methods. We noted that only 3 students  $(A_2, A_7, A_{10})$  were get the mark 9/10; which 16%; 3 students  $(A_{16}, A_{17}, A_{19})$  were get 8/10; which 16%; 6 students  $(A_1, A_3, A_5, A_8, A_{15}, A_{18})$  were get 7/10; which about 31%; 2 students  $(A_{13}, A_{14})$  were get 6/10; (10%) and 5 students  $(A_4, A_6, A_9, A_{11}, A_{12})$  were get the lowest score 5/10 (about 26%). In the same vein, the second approach achieved good results. We noted that only 4 students  $(B_2, B_7, B_{10}, B_{17})$  were get the mark 9/10; which 20%; 4 students  $(B_{11}, B_{16}, B_{19}, B_{20})$  were get 8/10; which 20%; 8 students  $(B_1, B_3, B_5, B_8, B_{12}, B_{14}, B_{15}, B_{18})$  were get 7/10; which about 40%; 1 student  $(B_{13})$  were get 6/10; (5%) and 4 students  $(B_4, B_6, B_9, B_{11})$  were get the lowest score 5/10 (about 20%). However, the results showed that 6 students  $(C_1, C_2, C_6, C_9, C_{16}, C_{18})$  were get 8/10 which about 32%; 7 students  $(C_4, C_5, C_8, C_{10}, C_{13}, C_{17}, C_{19})$  were get 8/10 which about 21%; and 2 student  $(C_{14}, C_{15})$  were get 6/10 which 10%.

The use of modeling-based approach has stimulated students in the classroom in a wonderful, non-boring way through constructive cooperative education that has a positive effect on their marks in the exam. In addition, this gave more students self-confidence by breaking the fear barrier among shy students compared to the traditional method which is based on diction and indoctrination as shown in Figs. 18.1 and 18.2. Conceptual understanding is one of the essential goals in learning process.



Fig. 18.1 Coordination and cooperation of students in the science laboratory during modelingbased approach activities (*Building DNA bond using ball-and-stick chemistry kits, sponge, and cartoon*)



Fig. 18.2 Advantages and disadvantages of cooperative education in the classroom

Anderson and Krathwohl (2001) reported that one of the indicators of understanding concepts from the students is the ability to answer questions according to bloom's taxonomic-level remembering, understanding, applying, analyzing, evaluating, and creating.



Fig. 18.3 Outcome of teachers training before they were involved in the educational process

Class	Phenomena										
	What w from the offsprin	as transn e parents g's	nitted to the	What affects color in the pea seeds?			What was the substance that was isolated from the bacteria organism in genetic engineering process				
Grade 10th	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C		
Microscopic leve											
1- Gens	8	10	15	9	12	15	2	3	1		
2- Chromosomes	6	5	2	6	5	3	6	7	4		
3- DNA	5	4	2	2	3	1	9	10	14		
4- Didn't answer	-	1	-	2	-	-	2	-	-		
Total	19	20	19	19	20	19	19	20	19		
Macroscopic leve	el										
1- Traits	10	12	17	8	9	10	10	6	5		
2- Plasmid	6	6	2	6	4	4	5	9	12		
3- Didn't answer	3	2	-	5	7	5	4	5	2		
Total	19	20	19	19	20	19	19	20	19		

 Table 18.2
 Distributions of students' responses regarding the three phenomena (%)

From Table 18.2, analysis of the findings in 10th grade students class C, B, and A, respectively, indicates good answer that 78%, 50%, and about 40% gave micro-level explanations for the phenomenon associated with the parents genes, 78%, 60%, and 47% referred with regard to the seed colors, and finally, about 73%, 50%, and 46% gave this type of explanation in the case of isolated from the bacteria organism in genetic engineering process. Therefore, from the findings of the three phenomena, the results introduced from the class C are good; this explain the important of the important of the way of learning modeling-based approach activities.

Also, the findings regarding class A indicates that it seems quite difficult for these students to explain these genetic phenomena, because most of them depend and focus on memorizing the concept, not on understanding the content of the concept. Moreover, the results regarding the transmitted genes and bacteria chromosome were almost the same. However, the answers about Mendel's experiments explanations for the phenomena described by the three classes were almost the same. It is possible that the results are similar because ever exposed to processes like Mendel's experiments which are not included in the 10th grade curriculum. As for as, in order to understand some of the complex processes in relation to subjects such as genes and microorganisms where this requires imagination, presentation and representation in the form of a model or stereotype, not just memorization during the class (Marbach & Stavy,

2000). However, according to Macroscopic level in Table 18.2 indicates that Class: C shows high results 89%, then Class: B 60%, finally Class: A 50% regarding the question one. Also, the results regarding the question two were the same since 10th grade had not learnt about Mendel's experiments and discussed cellular explanations for the phenomena described by him relating to pea seed. Besides, the results related question 3 have some variation. In the class: C achieved high percentage 63%, then about 47% for class: B and finally 26% foe class: A. Marbach and Stavy (2000) pointed that genetics subject in general is a difficult subject, and when students face many complex concepts and processes related to genetics, it leads to confusion for the student because of the numbers of concepts that need to be understood, biological events that cannot be seen with the unaided eye, abstract concepts, and many foreign terms (Kristiani et al., 2020) as he becomes unable to deal with these concepts as a part of an interrelated whole.

Table 18.3 shows the distribution of explanations given by the 10 grades regarding the variation between species in the life. In the microscopic level Class A, less than half of the students (42%) indicated that variation is a combined from genes and environment. fifty percent in class B, and high percent (82%) from the Class C in the same vein, the results in the macroscopic level indicates 50%, 60%, and about 90% from the Class A, B, and C respectively. It is certain here that the results in Class: C are high, because this group of students was taught genetics in a scientific way different from other traditional methods, where students were dealt with in an interesting and not boring scientific manner by presenting the educational material and simplifying it and trying to make illustrations of some concepts, critical thinking, and problem-solving ability in order to it remains firmly rooted in the student's

Class	Question				
	What are the variation bet	responsible fo ween species?	or the		
Grade 10th	Class A	Class B	Class C		
Microscopic level					
1- Gens	5	4	2		
2- Chromosomes	6	5	1		
3- Gens and environment	8	10	16		
4- Didn't answer	-	1	_		
Total	19	20	19		
Macroscopic level					
1- Traits	6	6	2		
2- Genetic materials and other surrounding factors	10	12	17		
3- Didn't answer	3	2	-		
Total	19	20	19		

**Table 18.3** Distributions of students' responses regarding the genes and environment together are responsible for the variation between species (%)

mind for a large period of time in order to relate an interrelated whole. Therefore, the science education literature shows that often neither students nor their science teachers has a generally well-informed understanding of nature of science, especially the DNA subject teaching because that genetics play an important role in a student's intelligence and academic achievement (Lederman, 2007). It seems to me that the main goal of the teacher in the class is to motivate students develop their critical thinking and problem-solving ability by considering the relationship between science public life. Additionally, it seems worthwhile to explore that teachers' perceptions of students are important and it reflects effects on student performance in the classroom (Bennett, 2017).

Therefore, the context of DNA topic to students provides a fruitful example for combining hands-on experimentation with model-based learning in a school laboratory by offering access to an exciting path of discovery of molecular phenomena using student-centered hands-on tasks (Mierdel & Bogner, 2019). Also, work on these models by science teachers in schools establishes concepts for a longer period of time among students, but these models take a lot of time in design, some money, and preparation in school. In any case, this problem can be overcome by assigning students to work and prepare some of these models in homes, and school should provide all the materials needed for this type of working. Student learning in the laboratory as a team or as a group gives great motivation to learning and competition. In addition, many students receive information related the topic from their classmates or their peers in class better than the teacher for reasons, either to avoid embarrassment in the classroom by peers, or the teacher's style in the class is not appropriate for these students. Also to that, developing the skills of using materials such as cork, cardboard, wood, and other available means broadens students' perceptions of understanding, analysis, and reasoning compared to traditional methods. The student in the group plays two complementary roles that affirm his activity, namely the teaching and learning role, at the same time with self-motivation. Therefore, the effort made in the situation can lead to the survival of the learning effect, its functionality, and its transmission. The learning in group for this topic (DNA topic) provides equal opportunities for success because although everyone has a role in the group all the roles are complementary, and the result is not the student's view of the part that he achieved from the common goals. Therefore, success here is the success of a group that participated, achieved, and thus succeeded; even the low-level students have contributed a role to achieve the goal, and their sense of success in the midst of the group develops their motivation to learn, which raises their level in later learning situations. In the end, it will produce a conscious, educated generation in the future capable of facing problems and solving them in various ways through analysis and sequential logical thinking.

At the end, the opinions of some students were taken at the end of the educational process. Here are some examples:

Student A: "Yes, frankly, there is a difference between the traditional teaching methods that we are accustomed to in school and the teaching methods in this way (using educational models and methods of cooperative education)".

Student B: "This wonderful method saved me a lot of time and effort in memorizing and repeating huge information, and I was memorizing a lot of things, but I did not understand the true meaning behind the concept."

Student C: "My grades have improved significantly compared to the past, and I have become love with designing many models that serve the educational process."

Student D: "My relationship with my classmates and outside the school boundaries has improved and I have come to understand many things through the use of this education way through my friends more than the teacher, because frankly I was ashamed to ask more than once in class, but in cooperative learning, I ask my friends more than once without shame."

### **Implications for Teacher Training in the School**

Nowadays, the world is witnessing a tremendous development in various aspects of life, especially the technology side and new methodological horizons, in teacher training (Gómez-Carrasco et al., 2020). And in light of this knowledge era, the focus is on the educational aspect in schools as it is the most important sector, due to the role in building society, educating young people, and providing the requirements for the advancement and prosperity of nations and peoples. The educational goals of any educational system in the world cannot be achieved without the presence of a psychologically qualified teacher, professionally and academically. Several studies have demonstrated a positive relationship between teachers' well-being and their efficacy in teaching (Travers, 2001). However, practical and applied research on important training programs to improve teacher performance and efficacy is still needed, particularly in light of the scientific topics. Therefore, in order to achieve that the teacher should be able to do his work efficiently and proficiently, and this can only be done if the teacher underwent professional development programs and training courses that lead to his preparation scientifically and professionally. As example, science topic education in the class room should not ignored its experimental dimension side, as this constitutes one of the foundations of science in the future, and scientific education without experimental work fails to reproduce its very nature (Wenham, 1995). Therefore, the extent to which the specific training status influences teachers' performances in the classroom is very important for students' knowledge progress which is shown in Fig. 18.3. It also increases teachers' engagement, resilience, perception of their teaching value, self-efficacy, and ability to thrive within their (Angel et al., 2019). Effective classroom management skills are substantial for teachers in school before going deeply in the educational life. Evidence-based classroom management strategies are known to effectively reduce disruptive classroom behavior of students (Strelow et al., 2021). Unfortunately, many teachers do not receive adequate accurate teaching skills, taking into account individual differences, acting well in sensitive situations of student behaviors in the classroom, and management training prior to beginning their teaching careers. Therefore, this leads to high percentage of newly qualified teachers drop out during their first year in the classroom

(Colognesi et al., 2020). Keeping newly qualified teachers in front of a classroom is not easy process in the educational system. Most educational institutions across the world have applied different teaching education methods and practices. However, most are based on similar research paradigms trends, with simple differences because of the cultural, social, and economic differences between the countries (Evagorou et al., 2015). Therefore, the failure of the educational system to prepare a qualified teacher capable of the educational material and able to use a variety of methods in teaching subjects, especially scientific ones, will be reflected in the performance of students on the educational and psychological level.

# **Suggestions for the Improvement of Teacher Education**

The process of improving education is based on three sectors: a) teachers; student; and curriculum. Firstly: training new teachers at all levels, whether psychological, physical, and educational and not integrating them directly into schools. Therefore, the integration of teachers into the teaching process should be done before they undergo an intensive training process, by the training sector in cooperation with the department of curriculum and educational supervision in the Ministry.

Nowadays, most of the changes in our live are information- and communication technology-driven. We are already witnessing a rapid change in the educational field owing to the use of technology (Wani, 2021). Therefore, to use the modern technology in the class, the teacher has to be competent and adept at using various modern technologies and divers teaching devices. So, in light of the technological progress witnessed by the times, which led to the need to reconsider the teaching methods used in the schools, and to search for new methods based on innovation, creativity, and the tasks are distributed among the students. And for this reason, the teachers should follow modern teaching techniques based on activity, which gives the learner more space to participate in the educational process, makes the teacher facilitator of this process in the class.

The second part in the education process is the student: It must be integrated into the teaching–learning process to expand his knowledge and develop his abilities and not focus on the traditional pattern based on memorization and repetition in the class. In addition, utilizing the technical aspects and social communication skills in the class is a novel tool to attract students and motivate them to innovate, create, and emulate. Also, it encourages students to think analytically and critically and to engage in dialogue and discussion. Teacher must take into account the student's role in the educational process, because he is an important partner in the class and break the barrier of deadly routine and to endear the student in educational materials by involving him in school activities and competitions.

The third important sector is the reformulation of curricula to simulate tangible reality and to enhance creativity and innovation in the schools and universities. Curriculum development is a means of developing the educational process at all levels, starting from the early stage to the secondary stage, through the cognitive hierarchy process (Pikkarainen & Piili, 2020). The curriculum is also an important aspect in maintaining the student's personality and liking him in school, not alienating it. reformulating the curriculum in a scientific manner that is attractive to the student is based on the smooth purifying sequence and scientific logic in solving scientific issues and explaining the surrounding phenomena based on the scientific method, not the curriculum based on memorization and daily routine indoctrination. Also, the curriculum itself should be based on simulation and training rather than reinforcement of information rumination.

#### **Implications in the Study**

In my opinion, one of the main reasons for students' difficulties in the public schools as example here in our village could be that students are simultaneously exposed to a different of teachers (science and biology teachers), numerous concepts, and processes at different levels of teaching which can causes a shift down in motivation process and learning achievement between students. Just for clarification, to clarify the above: Our school receives students from the 8th grade from another nearby school, and here what we mean is that students are often exposed to confusion and misunderstanding in concepts related to genetic material by different teachers and a lot of time without specializing in the scientific subject. This is a very big problem that leads to the stress for teachers in the secondary stage to rebuild what has been destroyed (education in the wrong way) based on indoctrination and not understanding and feeling the concept through inventing new methods of teaching to see the concepts as a part of an interrelated whole. The other new complexity in the world is that due to the spread of the COVID-19 pandemic disease, it has led to a change in the education pattern of students, especially biology students, which led to the transition from practical application and the use of different methods of teaching to communicate the scientific concept to focusing on the scientific material in theory (Nisa, 2021) as if it were the subject of history or a story, and this has serious repercussions in the future that will be seen from the low scientific and academic level of students when they return to schools and universities.

# Conclusion

This study is an overview of the level of understanding of biological concepts. The use of the intervention modes of representation at suitable way and class led to an acceptable outcome of understanding the biology concepts. This study set out to understand students' experiences with the biology self-learning modules. We investigated students' interactions using the new teaching methods to better understand the contextual influences on their participation in science learning. It has been shown that

involving students in the lesson and the educational process has a great and effective impact on the level of understanding and awareness of important concepts in biology. Also, through the results of the posttest exam, student's ability to imagine and understand was noticed. The results suggest the students learned from the modeling-based approach better as compared to the use of traditional method approach. Also, this method enriches the learning of biology and science. The purpose of this study is to develop a teacher training for support teachers, who perform routine and classic work in schools, also improving their information and communications technology and introducing the principles of emotional intelligence in the classroom. Finally, we advise science teachers to involve the student in the lesson and to use new modes in learning instead of the traditional method. We also need to research how to get our students' high engagement in biology topic to apply biology in their daily lives eventually. In addition, results will be of help to teachers, education, institution, and the government in developing the curriculum based on what strategy students learn best. Finally, with the continuing using conventional education, putting at greater risk the intellectual development of our children, it is important to appraise proposed remedies in order to get new innovative generation in the future.

In the further research, the researcher should make implementation of the study on a larger scale of students where some schools have more numbers of classes. Moreover, further research can be carried out regarding the identification of misconceptions about genetics concepts in 12th grade school students in Palestine to follow up the development of teaching materials.

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# **Chapter 19 The Educational System and Curricular Context for EFL in the State of Kuwait**



Maisoun Alzankawi

**Abstract** The general aim of this chapter is to provide insight into Kuwait's social and educational context in order to present the main elements of English language teaching in the country. The chapter discusses the demographic and historical background of Kuwait, the educational system and curricular context for EFL in Kuwait, problems of English writing in Kuwait, and finally, issues in relation to Arabic to English writing for language learners in Kuwait.

**Keywords** Kuwait  $\cdot$  English as foreign language  $\cdot$  English writing  $\cdot$  Second language (L2)  $\cdot$  English teachers

## Introduction

The aim of this chapter is to provide insight into Kuwait's social and educational context in order to present the main elements of English language teaching in the country. The chapter discusses the demographic and historical background of Kuwait, the educational system and curricular context for EFL in Kuwait, problems of English writing in Kuwait, and finally, issues in relation to Arabic to English writing for language learners in Kuwait.

This chapter aims to provide insight into Kuwait's social and educational context to depict the principal features of English language teaching in the country. The chapter discusses Kuwait's demographic and historical background, the educational system and curricular context for EFL in Kuwait, problems of English writing in Kuwait, and finally, language learners' issues concerning Arabic to English writing.

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This chapter is based on the author's Ph.D. thesis, an investigation of EFL writing strategies and cohesion of Kuwaiti undergraduate students, Trinity College, University of Dublin.

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#### Demographic and Historical Background of Kuwait

The country's demographic composition and geographic location influence the status of the English language in Kuwait today. The language's place in the nation has consequences for English language education. With Arabic as Kuwait's official language, English has been made compulsory in primary schools' education since English has become progressively widespread in Kuwaiti society (The State of Kuwait, 2014).

#### The Importance of English in the State of Kuwait

The oil industry's extraordinary economic growth after Kuwait achieved sovereignty from the United Kingdom in 1961 spurred the use of the English language in the country. The situation implies that oil prompted English in Kuwait. The boom in the oil industry helped the country develop not only economically but also educationally, politically, and socially. Karmani (2005) highlighted the distinctive role of English as a language for specific purposes within Kuwait, acquiring the term "petroleum English." This association is attributed to the English language use in the oil production industry.

The discovery of oil has stimulated both the status of English as a lingua franca and the formalization of the schooling system. Akbar (2007) elucidates that those Kuwaitis who liaised with British expatriates at several oil-producing locations had to study the foreign tongue to enhance the development process and share proficiency.

The propagation of the Kuwaiti oil industry also led to improved exposure globally, which augmented the need for a conventional language used for communicating in a more diverse population. The intensified internationalization virtually suddenly placed Kuwait within the global context. Consequently, Western interests in the country propelled, which offered a modern set of work ethics and business ideologies besides attracting immigrants from different countries who performed as workers in the service sector (Al-Rubaie, 2010). The population comprises approximately 4.2 million people. There are 1.3 million Kuwaitis, and 2.9 million are non-Kuwaitis. As a modern country, Kuwait society sees the need to increase the use of English (World Population Review, 2016).

According to the Library of Congress Country Studies (2013), the Iraqi conquest in 1990 was an extra factor that induced the use of English and led to its integration into the Kuwait educational system. According to Mohammad (2008), the Iraqi occupation contributed to the difference of the Kuwaiti population from its prewar state. Before the Iraqi invasion, English functioned solely in the formal educational context as a foreign language. It was taught at the intermediate level and then for eight consecutive years. The language portrayed a small sociocultural role for Kuwaitis.

The situation altered radically during the military operations of the Western coalition forces deployed to discontinue the aggression and restore the political balance of powers in the Gulf region (Library of Congress Country Studies, 2013). Hence, during this period, the link between the Kuwaitis and the English language and its role was forever changed. English was regarded as an international language spoken by Kuwaiti diplomats to express the country's destruction and was also the language utilized by the Kuwaiti army when communicating with the allied troops (Al-Yaseen, 2000). As an outcome, some Kuwaitis consider the English language, and its assimilation into assorted aspects of Kuwaiti life, as a philosophical power in the quest to amalgamate Arab-speaking, Islamic cultures with global, Anglophone cultures (Al-Rubaie, 2010).

#### The Place of English in the Kuwaiti Society

Daily communicative circumstances in present-day Kuwait involve English. For instance, English is the dominant language used for banking and business (Mohammad, 2008). Shop names, street signs, restaurant menus, and vehicle panels are written in English. Banks, hospitals, oil companies, and technical establishments also use English in worldwide communications (Al Darwish, 2017). Additionally, Salem (2013) indicates that various forms of new communication technology, including email exchanges, Internet chatrooms, and text messages, also use English.

English has been a compulsory subject taught in their primary schools (the State of Kuwait, 2014). The early introduction of this foreign language aids students in their college education. For instance, the medium of instruction in engineering, medicine, and science courses is English at Kuwait University (Al Darwish, 2017). Despite this, studies about the English competencies, such as Salem (2013), observed issues in English language use. In this study which examined the effect of the extensive advances in communication technology and Kuwait's English language use, 118 intermediate school and 93 secondary school students demonstrated the abuse of abbreviated forms, acronyms, and clipping. These habits were found to contribute to the incorrect use of the English language. Salem claimed that this hurts the formal writing task since applying these shortcuts in the formal writing task concerns the standard of English, the official form of teaching and learning. This notion also negatively affects how students use language, including vocabulary, spelling, grammar, and language proficiency through writing skills. Conversely, Sweeny (2010) emphasizes the positive role of using instant and text messaging technologies as providing an opportunity for socializing, sharing information, and structured communication in English.

Attitudes toward English among Kuwaitis vary widely. Some researchers, such as Al-Rubaie (2010), point out that Kuwaitis perceived English as a negative tool for globalization after the Iraqi infiltration. On the contrary, the need for English for various purposes such as doing business, studying, tourism, and traveling, on both regional and international levels, offered a need for English language learning (Malallah, 2000). Kuwaitis yearn further with the latest technological developments and inventions, mostly in English (Malallah, 2000).

Most studies on students' perceptions occurred before the curriculum overhaul and indicated favorable perceptions of English language learning. Malallah's (2000) research concerning Kuwaiti university students' attitudes to English reveals that the

dominant perspectives in Kuwait are in favor of the English language. The findings in Malallah's study show that most students (79.5%) noticed the English language interesting. While 47.5% of the students indicated that they liked listening to the English language, 41.6% found it easy. Among the respondents, 39.6% said they felt sorry for those who could not speak English. About 38.2% felt more educated when speaking English, and 36.4% hoped to send their children to private English schools. Approximately, 38.2% recognized speaking English as impressive. Kuwaiti college students in this research had positive attitudes toward English and native English speakers. The study further determined that Kuwaiti students had high motivation to learn English because of their favorable attitudes toward native English EFL teachers (Al-Zankawi, 2018).

Likewise, Kuwaiti college students generally show strong instrumental motivations toward learning the English language, getting a job, pursuing a degree, pleasing their parents or opting for higher education (Al Othman, 1995). Unfortunately, limited studies have been conducted to investigate Kuwaiti learners' motivation in learning English in the wake of significant political and educational changes in Kuwaiti education (Al Othman & Shuqair, 2013). The following sections discuss the status of the English language in the educational system in the State of Kuwait. The part also specifies the English language instruction and the academic and curricular context for EFL in the State of Kuwait.

#### Educational System and Curricular Context for EFL in Kuwait

The teaching of EFL has progressed during the past four to five decades in some Arab states. The advent of communication technologies, including computers and the Internet, has provided numerous ways to communicate, especially in educational settings. Based on increased internationalization, the English language has proliferated in the social, business, and academic arenas in the Arab world (Al-Rubaie, 2010). For instance, English is used in all scientific majors at Kuwait University, including the Faculty of Medicine, Engineering, and Experimental and Applied Sciences. Furthermore, English is extensively used in Kuwait's banking, civil aviation, petroleum companies, tourism, trade, technology, and other trading and technical organizations.

Since English is a foreign language in Kuwait, effective EFL has become essential and common to meet the increasing demand for English fluency. Notably, learning languages has become widespread among young learners to meet the current needs of communication (Dweik & Suleiman, 2013). The English language was included in primary stage curricula as the main subject to guarantee students are prepared to partake positively in the development and progress of the Kuwaiti society. Kuwait English teachers aim to introduce students to the basics of the language and tune their ears to the English sound system to assist them in starting a new system and using it as one more means of communication by practicing the four language skills: writing, reading, speaking, and listening (Ministry of Education, 2002). Setting in the subject

into the primary stage curricula prepares individuals at an early age to achieve this mission. The following section stresses the position of the current research inquiry in the scope of EFL writing instruction.

Generally, Kuwait's education system entails three phases: elementary (5 years), intermediate (4 years), and secondary (3 years). English learning begins in Grade 1 and continues to Grade 12 in the public or private sector. English is taught as a foreign language in class periods of 45 min per day, five days a week, in the three stages in public schools. Mohammad (2008) focuses that an English teacher must devote one lesson a week to enhance the writing skill of students. This practice results from a long history reviewed in the following section.

#### **English Language Teaching in Schools**

Since the 1960s, the country's Ministry of Education has been responsible for instituting compulsory programs in the public schools' system (Kuwait Ministry of Education, Law 11, 1965; Kuwait Ministry of Education Annual Report, 2004). Hence, students in Kuwait must meet an English requirement either when they continue their post-secondary education at various institutes of the PAAET or when they enroll in the university. They are compelled to take English courses along with other major courses.

Following the policies of Kuwait to attain educational integration with members of the Gulf Cooperation Council (GCC), the Kuwaiti Ministry of Education initiated exchanging expertise and applied educational experience with these countries. Notable success ensued in 1987 in the United Arab Emirates (UAE) regarding teaching English. Also, Kuwait's English literacy rate was higher than 75% in teaching English in the primary grades. Assessment studies presented that this English literacy did not influence the teaching of Arabic as a mother language. According to the Central Intelligence Agency (2016), the literacy rate of Kuwait is 96.3% in the twenty-first century.

Subsequently, education executives in Kuwait became convinced that it was essential to incorporate the English language teaching beginning at Grade 1. The exponential upsurge can be attributed to the ministerial decree (61–93/94) released on April 9, 1993. Teaching English must be initiated at Grade 1 in all private and public schools (The Ministry of Education, 1994). In 1993, teaching EFL in Kuwaiti public schools commenced with the Grammar-Translation approach and sustained until the eclectic method was employed in 2005 (Al Darwish, 2017).

Effectively, the official decree on English education gave EFL an impetus and further drew significant attention from the government (Al-Rubaie, 2010). This declaration informed the addition of the English language to the required curriculum in Kuwait. Being one of GCC's members, and as the Kuwait Ministry of Education was incapable of publishing its English language books after the Iraqi invasion, Kuwait borrowed the UAE curriculum for English education, implemented in 1993–1994. The principles of Communicative Language Teaching were initially associated with the English curriculum; namely, the curriculum sought to instill four basic skills

of language teaching–listening, speaking, reading, and writing to first graders and later refine those skills until secondary school graduation through the audio-lingual method due to several aspects, such as the class size. The intensity of English language instruction remained the same as in the prior system (45 min, five days a week) (Al-Rubaie, 2010).

Kuwait adopted the UAE curriculum because it could not publish its English language books after the Iraqi invasion. The infrastructure was severely damaged during the war and rebuilt (Al Darwish, 2017). Nevertheless, in 2002, the ministry resolved to start publishing its books according to a new curriculum for teaching English at public schools. The government executed the new English language curriculum in Kuwaiti primary schools. The Ministry of Education in Kuwait (2002) declared that the curriculum would blend audio-lingual, communicative, and grammar-translation approaches, but the process was more communicative in the earliest grades. Thus, the revised curriculum excluded reading and writing skills in the first two grades (Al-Zankawi, 2018). This curriculum has stressed mainly speaking and listening skills, whereas reading and writing skills were not commenced until the third grade (Jaffer, 2003). No current documentation existed regarding the rationale for this change to the UAE curriculum (Al Darwish, 2017; Jaffer, 2003).

Omitting the writing skill from the curriculum at the first two grades of education has drawn the attention of educational academics and researchers, parents, and teachers. They were concerned and upset about the new curriculum because of the lack of focus on reading and writing skills in the first grade (Jaffer, 2003). Such stakeholders often ascribe students' writing issues to the delay in starting the writing skill in the third grade of the educational system (Jaffer, 2003; Mohammad, 2008; Taqi & Shuqair, 2014). Parents were disquieted that the new English curriculum would not help the students establish their English writing difficulties (Jaffer, 2003).

Due to a perceived lack of adequate literacy teaching, the Ministry of Education announced in 2005 that the elementary curriculum was changed to give equal weight to the four skills of listening, speaking, listening, writing, and reading (Ministry of Education, 2015). According to the Kuwait Ministry of Education, students should achieve four language learning goals during each school level, including proficiency goals (macro skills of speaking, listening, writing, and reading); cognitive goals (knowledge of the language and culture); transfer goals (relying on specific language skills to react to emergency problems in learning; and affective goals (arousing positive attitudes and feelings toward the use of English among students), according to Al-Rubaie (2010). The current curriculum of teaching English in Kuwait encompasses elements of various models of English language teaching, such as (a) grammartranslation method; (b) audio-lingual approach; and (c) communicative teaching approach, to lead learners to utilize linguistic forms for several functions and meanings in the general flow of communication (Al Darwish, 2017). English language instruction in school is performed by the strategic goals of education in Kuwait (Ministry of Education, cited in Al-Rubaie, 2010). Thus, through experiment and adjustment, Kuwait has developed its blend of communicative, audio-lingual, and grammar-translation techniques to teach English (Al Darwish, 2017).

Critics of the curriculum remain. According to the new model, literacy was introduced gradually in the earliest grades (Al Darwish, 2017). Mohammad (2008) asserts that this new curriculum was more suitable for native speakers than Arab learners who learn English as a foreign language. In 2005, the stress on communicative techniques and almost entirely through speaking and listening in the first grade remained (Al Darwish, 2017). Despite the critical functions of the English language in Kuwait, it appeared that most first-grade students were not hearing English outside the classroom, which is vital to the success of the communicative process (Al Darwish, 2017). Due to the lack of focus on speaking and writing at the three stages of study in public schools, college students encounter real difficulty expressing themselves in academic writing in English once they join the university (Taqi & Shuqair, 2014).

Despite the preceding discussion about the education system in Kuwait and the increased use of English in daily communication, the interest in the English education system and writing, in general, is still relatively low (Al-Rubaie, 2010).

In my experience as a former teacher in public schools within Kuwait and with the current practice as a language instructor at PAAET, both teachers and students do not take the English language with the level of seriousness it deserves. Some sociocultural influences affect English language learning.

Regarding the sociocultural influence, Rashed (2017) specifies that the conventional direct approach of learning in class where students study the lesson and the writing skills immediately from the teacher without putting effort to research the information is the typical method applied in traditional dictating-style schools in Kuwait. While in college, students encounter difficulties with a new learning method in a class, where they must research and study the material independently. Rashed asserted that this change confuses and frustrates Kuwaiti college students and limits their ability to learn language skills or accomplish well in class. Many participants uttered discomfort in class when being constantly connected by the teacher, which is related to their image in front of peers (Rashed, 2017). Other participants said they have encountered challenges and feel embarrassed to speak freely in class when they reach college because of the segregation between genders in schools in Kuwait. Additionally, they feel a sense of pressure to participate in class when making a mistake. Consequently, some of them avoid participating in situations where they think they would be criticized or judged by peers or teachers.

Kuwaiti EFL students experienced stress caused by academic commitment, anxiety, course pressure, confusion, lack of time management, parents' expectations for excellent grades, pressure to get good grades, and perfect performance for their children in college (Rashed, 2017). This study further indicated that the family demand has a noticeable impact on those students emotionally and intellectually, which might lead to tension. Other possible sources of academic stress that students observed in slowing language skills comprehension and acquisition included excessive homework and unclear assignments (Al-Zankawi, 2018). Several students disclosed that they had to change and evolve their studying techniques to handle increased tasks and challenging material, which is different from what they are used to receiving in schools. Kuwaiti students related negative experiences with English teachers at the high school level, negatively influencing students' attitudes

toward the English language (Al-Bustan & Al-Bustan, 2009). Untrained and inexperienced teachers in the English language are common in Kuwait (Al-Bustan & Al-Bustan, 2009). Until 2002, the College of Education at Kuwait University was the sole producer of English language teachers in Kuwait.

In many circumstances, the teachers were foreign nationals from Arabic-speaking nations in the Middle East (Al-Bustan & Al-Bustan, 2009). This condition was deemed necessary given the several challenges experienced in 1993 upon integrating English as a foreign language into the primary schools' curriculum. The Ministry of Education enlisted untrained teachers who did not have the prerequisite qualifications because of the shortage of teachers (Al-Mutawa, 1997). These limitations in education led to numerous problems in English writing, as discussed in the next section.

#### Problems of English Writing in the State of Kuwait

Quality and achievement are the significant challenges affecting the teaching and learning of the English language in Kuwait. Al-Edwani (2005) cites the following challenges of a formal learning environment in Kuwait. The setting reflected inadequate instruction, specifically the lack of English skills among Kuwaiti EFL teachers and continued reliance on an obsolete medium of instruction in schools. The following subsection considers the EFL writing education issues at the primary and secondary levels.

#### **English Writing System in Kuwait**

Writing skills are overlooked in both EFL and L1. In Arabic classes, students learn errors in L1 writing strategies that continue in their L2 writing (Mohammad, 2008). This study criticizes the new curriculum presented by the Kuwait Ministry of Education in 2002 as intense on improving listening and speaking skills and neglecting vital writing and reading skills. Teachers provide English composition as a writing skill once a week for 45 min in Kuwaiti primary classrooms (Jaffer, 2003), which offers a significant obstacle in the learning process for writing (Taqi & Shuqair, 2014).

A significant gap exists between writing instruction theory and the practice of English classes in Kuwaiti public schools. The students passively participate in class in many cases, as the lessons are usually teacher-centered (Al-Darwish, 2006). Al-Edwani (2005) cites that the shortcoming of the formal learning environment in Kuwait is an outcome of inadequate instruction due to the continued use of the outdated methodology, which heavily relies on the grammar-translation method, regardless of the current official curricular focus on the audio-lingual and communicative frameworks. Similarly, Al-Darwish (2006) cites the same challenges and the overreliance on teacher-cantered learning processes, thus having English classrooms that drill instead of encouraging students to practice the language.

Furthermore, classroom management problems worsen English writing issues. The English language teaching in Kuwait is such that all the four primary language skills-listening, speaking, reading, and writing—are merged as one subject. Writing abilities are allocated the least time during the English classes within a week (the State of Kuwait, 2014). Productive speaking and writing skills are challenging to integrate within 45 min with many students five times a week. Grabe and Kaplan (1996) emphasized that teachers-in-training should be educated on writing development theories and instructional techniques for writing. However, as earlier noted, writing teachers in Kuwait have been underqualified for this task (Al-Mutawa, 1997).

Comparably, Mohammad (2008) remarked on issues at the curricular level in primary schools. Specifically, Mohammad conducted a case study investigating firstgrade Kuwaiti English education writing. Using classroom observations, interviews, and an investigation of curriculum documents, the researcher found that the association between written and oral language is more complex than suggested by either the international literature about the delayed teaching of writing or the Kuwaiti curriculum reform. Three principal findings surfaced from the study: language and non-language goals in the context of globalization, the written and oral link, and the lack of transfer of writing skills between English language studies and other subjects of the Kuwaiti first-grade curriculum. In these findings, Mohammad insinuated that the individual and the Kuwaitis' social needs in globalization need further integration into additional coursework across the curriculum and writing instruction. Mohammed implied an integrated, writing-intensive approach to the English language, which might be more appropriate and more effective for first-grade students in the present Kuwaiti context.

The students' exposure and negative experiences with English at the primary and secondary levels explain the difficulties demonstrated by Kuwaiti students with writing skills at the college level. Numerous researchers have documented the austere challenges confronting the teaching and learning of college EFL writing, with situations so grave that students are incompetent in writing complete sentences. Upon entering college, Kuwaiti students exhibit a dismal level of awareness in writing skills (Taqi & Shuqair, 2014).

Learners realize that English at the university level is dissimilar from English at the high school level (Al-Bustan & Al-Bustan, 2009). A large number of students per class, typically 49 in first-year College of Arts courses (Kuwait University, 2016), makes it challenging for teachers to effectively relay the required writing skills and strategies. Kuwait University's college-level writing policy (2014) requires students to generate a precise chapter that academic readers can understand. Also, the composition syllabus does not require teachers to teach students how to plan, revise, or edit their writing process. Their instruction focuses on writing summaries and imitating models of writing created by other writers of short stories and events rather than concentrating on writing techniques and strategies. In writing classes, students are evaluated in non-mediated learning situations. Specifically, they generate handwritten texts without the support of word processing (Al-Zankawi, 2018).

Correspondingly, in her study investigating the obstacles and difficulties that Kuwaiti college students encounter in the English learning methods in EFL classes, Rashed (2017) surveyed 500 participants studying English in Kuwait. The findings revealed that students were displeased with the conventional teaching method of EFL writing, based on several factors that affect students' motivation toward English learning, such as academic stress, L1 influence, ability to memorize grammar structure, and sociocultural influence. Regarding grammar, Rashed (2017) states that a large number of participants suggested eliminating grammar as a skill taught independently, describing that it should be combined and taught with one more skill, such as reading or writing. Other students recommended opening a new course of speaking and listening where grammar is taught, practicing formal exchanges and rectified by the teacher or peers. Fittingly, in EFL learning, listening, speaking, and language comprehension should scale the priorities of educators in teaching a language (L2) because they are considered the top tools to learning a language. Additionally, 25% of participants demanded more practice on writing to enhance the writing skill that serves their academic life in colleges, to assist them in performing well in English and other courses (Rashed, 2017).

The context of English language writing instruction clarifies the Kuwaiti students' writing classes at the college level. Due to the lack of language development, practice, and writing experiences in L1 and EFL writing, many Kuwaiti college students do not view themselves as good writers, especially English (Al Darwish & Sadeqi, 2016). When students enter college, they also do not seem to have awareness regarding their writing skills. Thus, a need persisted for the current research to focus on the students' writing processes and the types of strategies they employ in the writing process within the context of cohesion. Significant differences between English and Arabic also hinder cohesive writing (Rashed, 2017), reviewed in the following section.

#### **Differences Between English and Arabic**

Regarding the current study, prior researchers revealed that an individual's literacy skills could alter depending on the sociocognitive variances in the L1 and L2 of language learning. For instance, English and Arabic are different in the alphabet, script direction, and many other features. Arabic is a Semitic language spoken throughout the African countries and the Middle East (O'Brien, 2013). In Arabic, there are 28 letters, with only three vowels, "a," "i," and "u," contrasted to the English alphabet's 26 letters and a vowel system of 5 vowel symbols, which presents significant issues for Arab learners of English both in terms of spelling and pronunciation (O'Brien, 2013). Besides, writing in Arabic is from right to left and is written in a cursive script, with no distinction between lower and upper case, which may cause some problems for individuals when learning the left to the right system in English (O'Brien, 2013).

In connection to O'Brien's (2013) observations about Arabic to English, the participants in Rashed's (2017) study reported difficulties in vocabulary due to the different nature of Arabic and English, which appears in lexicon, phonology, and structure. They declared that some sounds in L2 were novel to them and required effort to pronounce them precisely, such as G (i.e., goat), P (i.e., plan), V (i.e., vital), and the sound SU (i.e., usual). Moreover, some of the participants conveyed that they faced difficulties with silent letters in words like "debt, often, talk, walk, muscle, etc." since such letters do not exist in their mother tongue (Arabic). As a result, the students read or write the word just as in Arabic. Students also reported extracting specific rules from their mother tongue (L1) and using them in the target language (L2). According to Rashed (2017), some students use L1 in class to presume that they understood well, inquire about the teacher's complex instructions, or ask for the meaning of vocabulary, which influences the amount of L2 acquisition and comprehension level.

#### Conclusion

In this chapter, the researcher discussed the general background about the context and the information linked to the existence of English in the State of Kuwait. Topics involved an overview of the educational system, Kuwait's demographic and historical background, and the problems of English writing in Kuwait. For no apparent reason, writing skills have been given relatively more minor attention in research in Kuwait, even though such skills have significant consequences on the L2 learners' educational level. Research involving students is uncommon in Kuwait's cultural context, which does not aid researchers in generalizing their findings of L2 learning because of the small size of samples.

#### **Recommendations for Writing Teachers and Course Designers**

This section provides recommendations for L2 writing instruction. The researcher suggests writing course designers in Kuwait, and the Arabian Gulf countries, since, across the Gulf area, the role of English in the education systems is comparable. The following list details the recommendations.

- The social context should focus on appropriate writing strategies consistent with EFL literature, such as strategic use of L1 (Wang, 2004). Nevertheless, instructors must also be cognizant of the social forces shaping their students' writing processes, as evident through the differences in female and male writing processes. Therefore, the results maintained a sociocognitive approach to deducing students' writing behaviors, which future instructors and curriculum designers should consider.
- 2. Educators must emphasize expanding learners' ability to use the different cohesive devices because these devices play an essential role in the L2 writing process. Various cohesive devices seem not to have received as much attention as they deserve in the classroom. Conversely, this may be because students use the devices frequently but not correctly. Therefore, explicit instruction with examples and focused activities on using different cohesive devices should be

provided and developed by the writing teachers earlier in students' education. Owing to direct and applied instruction, students can become more conscious of the importance of cohesive devices in accomplishing the writing task and subsequently use them effectively and appropriately (Liu & Braine, 2005). Furthermore, more focused instruction, supplemented by tailored drills, is needed to train students to use all cohesive devices correctly.

- 3. EFL instructors in Kuwait should highlight L1 use during the planning stage when the writer focuses on the meaning and not the single word, rather than the text-creation process. Strategic use of L1 is an imperative feature of writing in another language (Wang, 2004). It can assist writers in decision-making and idea generation regarding how the transfer of writing skills across languages is socially mediated.
- 4. One potential for using English in authentic contexts about writing is the use of peer feedback. In EFL writing, instructors should encourage and support social interaction and peer correction, explicitly emphasizing the benefits of peer feedback. To underscore peer feedback, teachers can introduce the consequence of peer feedback in class, ask students to exchange drafts, and give their students the principles of peer responses.

These activities can create interaction because teachers usually offer a topic and ask students to write independently. Peer communication in L2 involving EFL writing ensures that students can confer their work and interrelate with their classmates before submitting it to the writing teacher. As a result, students develop their linguistic and writing skills. Thus, corrective peer feedback assists students in improving their writing strategies.

- 5. The instructors are recommended to read the students' written products and constantly provide feedback to work on their written products to improve them. Because of the teacher-cantered policy and educational system in Kuwait, the study participants were found to rely heavily on their teachers as their only reference. Liu and Braine (2005) suggested that the writing teachers' responsibility is to comprehend and then explain the marking and assessing criteria in the class, thereby enhancing students' awareness of what contributes to the quality of writing.
- 6. Students' lack of awareness (or increasing awareness in some cases) of their writing problems based on gender should be considered in instruction or the writing curriculum to specify the appropriate remedial action that each issue necessitates.
- 7. From this analysis, the low coherency in the EFL writing implied that Kuwaiti students in the primary levels need to be given numerous chances to practice writing. One writing class per week may not be sufficient (The State of Kuwait, 2014). More practice and use of authentic English are required to enhance students' writing. In addition, more writing practice will help students, particularly the less proficient writers, become more effective writers (Sasaki, 2004).
- 8. There is an increased demand and further progress in determining the uses of technology in ESL instruction and learning. As technology evolves, so does the

need to stay constantly informed and updated. Thus, this study recommends that teachers actively be constantly aware of the developments and changes in technology. Furthermore, teachers should also realize how they can maximize their knowledge of technology and use it to tap into the learners' interests. Additionally, because technology is a crucial tool in helping teachers work productively and efficiently, schools and universities must continuously find ways to support technology in classrooms.

9. Professional development plays a vital role in the teaching–learning process; it inculcates curiosity, motivation, and new ways of thinking. It becomes most influential when adopted continuously with well-planned training. Therefore, supporting teachers' professional development programs is fundamental for ensuring high-quality teaching practice, and a proper framework may also be designed for monitoring teachers' performance after training.

For the professional development of English teachers in Kuwait, there is a need to improve the teachers' education programs. Educational planners have to design such courses for student teachers that help them improve their English language skills. For in-service teachers of English, higher educational authorities should plan some educational seminars conferences where they can meet with professional educators to get more exposure to their subject knowledge. In addition, they can take a more active approach in curriculum planning, including building on and refining existing practices, enabling them to develop excellent teaching practices constantly.

It is believed that content knowledge is the first and foremost important factor in the teaching and learning process. Besides the content knowledge, teachers must be provided with training programs related to classroom management, lesson planning, teaching strategies, and methodologies used to teach English. In addition, the ICT training programs should be provided to English teacher's preparations using the latest technologies, which can enhance the knowledge and exposure of their students.

# Suggestions for Further Research

Extensive scope exists for further studies in this field:

- Future researchers could study the effect of motivation on the written product of Arab EFL students, which would offer the field new results and a better comprehension of what drives the writing task. For example, exam orientation appeared in professors' interview responses as a possible motivational problem that hinders students' engagement with the writing process. Future researchers may choose to incorporate this as a phenomenon or a variable for investigation.
- 2. Further research is encouraged about the nature of cognitive processes, such as goal setting, and how specifically these methods initiate from and interact with a writer's awareness of the target text's social context. To deal with the needs of EFL students, future researchers should also explore ways to teach students the meta-language for the mental execution of cognitive processes and the language

for realizing the expected genre practices. Such outcomes shall inspire discussion among writing teachers concerning the potential of sociocognitive bases for improving students' competencies in academic writing and will inform more effective evidence-based pedagogical methods (Al-Zankawi, 2018).

3. Future studies can also indicate how the institution's needs assessment programs are used to design and implement teachers' training.

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# Chapter 20 Dynamics of Language Teachers' Online Interactions as a Site for Building Collegial Identity



Mostafa Nazari and Ismail Xodabande

Abstract Despite the growth of research on teachers' online interactions, little research has examined the dynamics of language teachers' interactions, more specifically the teachers' reasoning for connecting with certain colleagues more than others. The present study aimed to address this gap by examining EFL teachers' online interactions and the associated collegial identity in an online professional development (PD) initiative structured around mobile phone usage. Data were collected from five teachers' online exchanges and post-PD interviews. Data analyses indicated six forms of the teachers' online exchanges: a) Direct and indirect usage of mobile phones (28%), b) benefits/challenges of using mobile phones (21%), c) teaching language (sub)skills via mobile phones (18%), (d) attitudes toward mobile phone usage (16%), e) using mobile phones to learn language outside the class (14%), and f) teacherlearner relationships in light of mobile phone usage (3%). Additionally, the teachers mentioned three major reasons underlying their collegial identity in the online PD: Gendered perceptions, personal connectivity, and perceptual (in)congruity. Results of the study offer implications for the important role of teacher educators in facilitating language teachers' online PD and examining the motivations guiding their associated membership.

**Keywords** Online professional development · Online interactions · Language teacher identity · Collegial identity

# Introduction

Over the past decades, teacher learning has been conceptualized as a situative undertaking that happens in light of contextual idiosyncrasies (Korthagen, 2017). In this vein, a myriad of professional learning initiatives have been proposed for developing teachers' knowledge base and professional practice. Along these lines, digital technologies "are now seen as flexible and effective ways to reach teachers" (van

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Bommel et al., 2020, p. 1) to facilitate their professional development (PD). Within this changing face of teachers' professional learning (Nazari & Xodabande, 2020), online PD "can effectively support individual teachers' professional learning if it allows for social educative engagement with other professionals" (Parsons et al., 2019, pp. 34–35). Engagement and collaboration with other teachers, particularly colleagues, assist with developing a nested understanding of teaching that can collectively contribute to enhancing the teachers' sense of professionalism and improve students' learning. Although research on teachers' engagement in online PD has grown recently, little is known about the dynamics of such an engagement. More importantly, much less is known about why teachers select to engage with certain teachers more than others in online media. Understanding these aspects of teachers' engagement in online PD provides insightful ideas about the nature of collegial identity and more broadly about how teachers make sense of their membership in such initiatives. This study focuses on these aspects of teachers' engagement in an online PD initiative.

## **Literature Review**

#### **Online Professional Development**

In the past, PD was mainly characterized as a face-to-face undertaking run by experts or peer-to-peer initiatives that necessitated teachers' presence. With the upsurge of advancements in digital technologies and the ubiquity of Web 2.0 tools, this conceptualization has significantly changed. Currently, teachers can engage in various technological affordances that facilitate their professional learning and equip them with a personalized definition/understanding of PD (Lantz-Andersson et al., 2018). Additionally, digital technologies have now facilitated intercultural connectivity among teachers as they have provided affordances for the teachers to take a more active role in their own PD (Parsons et al., 2019). Moreover, engagement in online PDs can effectively contribute to teachers' knowledge base as they interact in a language that becomes both the subject and content of their professional learning (Nazari & Xodabande, 2020; Liljekvist et al., 2020).

Interaction is one of the most substantial constituents of PD in general and online PD in particular (Parsons et al., 2019; van Bommel et al., 2020). Teachers can engage in both synchronous and asynchronous modes of interaction and pave the way for their own and peers' PD by reflecting on their reflections. It is, partly, these characteristics that render online PD a powerful tool for developing teachers' sense of professionalism as "online PD provides a unique context with particular qualities that must be attended to and developed" (Parsons et al., 2019, p. 34). Relatedly, interaction in online PDs facilitates developing a community of practice (CoP) that can increase mutual understanding among teachers (Egbert & Borysenko, 2019).

In their seminal review on formal and informal online teacher communities, Lantz-Andersson et al. (2018) concluded that "the continuous growth of teachers' online interaction for professional use reflect[s] a growing sense among teachers that these are meaningful and beneficial professional activities" (p. 313). Furthermore, van Bommel et al. (2020) argue that such interactions "can open up PD in a fairly efficient way where the benefit seems to repay the time and effort invested" (p. 8). Indeed, online PDs provide a context for mutual understanding (e.g., Nazari & Xodabande, 2020), create CoPs that broaden teachers' knowledge (e.g., Lantz-Andersson et al., 2018; Parsons et al., 2019), provide a space for (re)structuring their collegial interconnectivity (e.g., Pawan et al., 2003), and increase collaborative work among the teachers (e.g., Nazari & Xodabande, 2020). Most of these affordances and professional learning occur in the interactions of teachers as online PDs "can be a valuable means of developing supportive and collegial practices" (Lantz-Andersson et al., 2018, p. 302).

Recent research has examined teachers' interactions in online media (e.g., Kelly & Antonio, 2016; Liljekvist et al., 2020; van Bommel et al., 2020). For example, Liljekvist et al. (2020) examined mathematics and Swedish language teachers' posts in six Facebook groups to probe their pedagogical content knowledge. The researchers analyzed the posts via a framework of speech functions. The results indicated that the teachers "use 'questions' and 'offers' most frequently (88%) [and within] these speech functions, pedagogical content knowledge dominates (63%)" (p. 1). In another study, Kelly and Antonio (2016) explored the types of support teachers receive on Facebook. The researchers adopted a two-phase procedure where they first, examined the types of support teachers provide for each other and second, whether the same findings repeat a year later. The findings showed that although the platform provided pragmatic advice for the teachers, such networks "are rarely a place for reflection on or feedback about teaching practice" (p. 138). Although the body of knowledge on teachers' online interactions has broadened the scope of research, this line of inquiry features descriptive studies that mainly characterize teachers' interactions and little attention has been paid to the dynamics of such interactions and why teachers select to connect with certain professionals.

### **Collegial Identity**

As the present study aims to conceptualize the nature of teachers' online interactions and the associated reasoning for interpersonal connectivity, a discussion of teachers' collegial identity is in order. Teacher identity has turned into a practical paradigm in studying teachers' professionalism, professional practice, professional development, and professional learning. Among the multiplex of factors (re)shaping teachers' identities are institutional factors and participants. In this regard, colleagues play a fundamental role in teachers' sense-making of their own role and self-understanding (Beijaard et al., 2004; Day, 2002). For example, Murray (2020) explored the collegial identity of Irish teachers to depict the associated ambiguities and tensions. She situated such an identity in a macroscopic sphere and argued that further scrutiny of professional vulnerabilities and fluctuations "together with colleagues would represent collegial relations ... and could contribute to the development of democratic professionalism and professional capital" (p. 5).

Relationship among colleagues and its impacts on collegiality has been studied from various perspectives. This line of thinking mainly features a dichotomy between individualism/isolation and collectivism/collaboration. Hargreaves (2001), for example, argues that all "collegial relations among teachers are a peculiar combination of closeness and distance" (p. 504). Moreover, focally discussing the role of colleagues in teachers' identity construction, Nias (1998) considers colleagues' role as fundamental in their development and in "meeting (or failing to meet) the need, in turn, for: practical and emotional assistance; referential support; professional stimulation and extension; and the opportunity to influence others" (p. 1257). Collegial identity has mainly been studied in the form of CoPs and mentoring (e.g., Bullough, 2005; Johnson, 2003; Murray, 2020). What seems to be lacking in this line of research is examining teachers' collegial identity in online platforms.

#### The Present Study

The present study is conceptually informed by the concept of identities-in-practice (Lave, 1996; Lave & Wenger, 1991; Wenger, 1998, 2008). Within this conceptualization of situated learning, identity and practice are intertwined and by engagement in practice individuals craft identities that stem from their participation (Wenger, 2008). As Lave (1996) argues, "[c]rafting identities is a *social* process, and becoming more knowledgeably skilled is an aspect of participation in social practice" (p. 157, original emphasis). In this regard, teachers' online interactions could provide a conduit into the multiplicity of their collegial identities and the way they attempt to associate with their colleagues. Additionally, such interactions provide a picture of the way teachers make sense of their membership in the CoP (Wenger, 2008), in this case an online PD initiative, and how they formulate interactions with colleagues to build collegial identity.

Along these lines, our study was informed by Little's (2002) contention that in studying teacher communities, it is significant to "show how teachers, in and through their interactions with one another and with the material environment, convey and construct particular representations of practice" (p. 934). To this aim, we employed Goodall's (2000) verbal exchange continuum, which involves five forms of phatic communication, ordinary conversation, skilled conversation, personal narratives, and dialogue. In line with the definition of the theoretical underpinning of the study presented above, we examine the skilled conversations of the teachers in building their collegial identity. Goodall (2000) defines skilled conversation as "an elaborate and interlocking, mutually understood, means to arrive at a mutually organized, but not always predetermined, end" (p. 104), which well suits studying how and why teachers connect to their peers.

Although examining online PDs has found some ground in recent years, "empirical understanding of such communities remains under-developed" (Lantz-Andersson et al., 2018, p. 303). Moreover, the extant literature has dominantly described teachers' online interactions using previously developed frameworks and little is known about why teachers connect to the peers they select. Furthermore, considering the substantial role of colleagues in teachers' professional sense-making (e.g., Day, 2002; Nias, 1998), the scope of research on collegial identity in online platforms is slim, particularly in EFL contexts. Exploring these aspects of engagement in online PD unpacks the teachers' sense-making of their membership and how they perceive their collegial identity in light of online interactions. To respond to these gaps, the present study drew on the concept of identities-in-practice and examined the dynamics of teachers' online interactions and the details of their collegiality in a bottom-up manner. It also took a step further and examined why teachers select to associate with certain colleagues more than others, if any. To address these gaps, the following questions were formulated:

- 1. How do language teachers connect with their colleagues in their online interactions and what dynamics do their interactions follow?
- 2. Why do the teachers tend to connect with certain colleagues more than others, if any?

### Method

#### **Participants and Context**

To conduct the study, we consulted the teachers of a language school and five teachers (T1-T5) agreed to participate (selected conveniently). T1 and T2 were female and T3, T4, and T5 were male. The teachers' age and experience ranged from 25–33 to 4– 8 years, respectively. The teachers held BA and MA degrees in Applied Linguistics, Translation, and Literature fields and taught at beginner and intermediate levels of proficiency. This study was conducted in an English-language school in Iran. The school offered general English classes and it encouraged the use of technologies by the teachers. In addition to various technologies such as overhead projectors, computers, and online classes, the policy-makers encouraged the teachers to use mobile phones in their classes. Mobile phones could be used both directly in the class for connecting to the Internet and implementing synchronous activities and indirectly for supplementing classroom materials with other resources. Additionally, the teachers held online weekly classes wherein they expanded on classroom modules online and provided the learners with complementary information about various linguistic and extra-linguistic issues. The major online platform used by the teachers was Telegram messaging application, which was also used for the PD in this study.

#### The Professional Development Course

The PD initiative enacted in this study was a 10-week course lasting three months (for a complete discussion of course details see Nazari & Xodabande, 2020). The course focused on implementing mobile phones in the teachers' classes and discussing theoretical and practical issues relevant to mobile phones. The discussions were held weekly (two hours) in which the teachers were asked to report their mobile-related practices and then the members engaged in group discussion over the shared idea(s). The focus of the discussions was on examining the pedagogical utility of the practices, how to improve them, and whether the teachers have employed mobiles for novel aspects of their instruction. Furthermore, the application of mobile phones for other skills and sub-skills of language including listening, speaking, reading, writing, pronunciation, grammar, and vocabulary was discussed to invoke the teachers' reflectivity and extract their associated responses. The teachers could participate in the discussions turned out to be run synchronously.

#### Data Collection

Data for this study were collected from the teachers' online interactions and post-PD interviews. As mentioned before, in line with the teachers' identities-in-practice, we employed Goodall's (2000) skilled conversation exchanges to identify those interactional exchanges that featured threads containing content- and knowledge-related issues (see van Bommel et al., 2020). These exchanges were viewed as sites for negotiating the teachers' cognitions and cumulatively their identities. The skilled conversation exchanges could carry features in light of which the teachers could construct their identities (Nazari & Xodabande, 2020) and unpack their associated identity representations (Little, 2002). From among the whole exchanges, 152 were coded as skilled conversation (78% of the whole online interactions). A discussion of the analysis of these exchanges is presented below.

The second source of data pertained to post-PD interviews, which aimed to expand on the data from online interactions and examine why the teachers tended to associate with certain colleagues more than others. After identifying the teachers' interactions and delineating the associated details, the frequency of the interactions fed the interviews to examine the teachers' identities-in-practice as embodied in their interactions. These interviews were run in Persian (the teachers' L1) and in a faceto-face mode. The interviews lasted on average 25 min and were audio-recorded for further analysis. The major question asked from the teachers was: It seems that you were more inclined to chat with X (interlocutor). Is it true in your opinion? What is the major reason for such an attitude?

#### Data Analysis

In the present study, the unit of analysis for examining the teachers' online interactions was a thread. Our operationalization of a thread followed the definition van Bommel et al. (2020) provide as: "A thread starts with a post and consists of all the further contributions that this post and any further response elicit" (p. 4). It should be noted that Telegram is an application that provides text messaging, voiceand video-sharing, and is a widely used application in the context of the study. In line with Goodall (2000), we excluded irrelevant posts such as greetings, conversation openers/closers, etc. and the focus was on those posts involving content-related conversations. The following is an example of such threads:

T5: as I mentioned in our previous discussion last week, one major reason for mobile phones being distractive in the classroom is the increased use of social media among students. It is really annoying for me to see my students checking their WhatsApp while I'm teaching.

T2: yes, that's a big concern for me too. But I talk to my students a lot and it seems that it works for most of them.

T5: so it seems that before using mobiles we need to create a new learning culture, otherwise they won't make any positive impact.

T4: these sorts of issues are common in large classes, where the control is difficult. In small classes the use of mobile phones is much easier.

The threads identified as skilled conversations were further analyzed based on their content using Nvivo software (version 10). The same software was used for analyzing the interviews. To this end, we used a cyclical and evolving process of coding and recoding (Saldana, 2013). In the first cycle analysis, holistic coding was used to label the interactions based on their general theme. In the second cycle, evolved codes from the first cycle were used for categorizing the exchanges into broad themes. This yielded a categorization of the exchanges as: a) Direct and indirect usage of mobile phones (28%), b) benefits/challenges of using mobile phones (21%), c) teaching language (sub)skills via mobile phones (18%), d) attitudes toward mobile phone usage (16%), e) using mobile phones to learn language outside the class (14%), and f) teacher–learner relationships in light of mobile phone usage (3%) (Nazari & Xodabande, 2020). Additionally, we analyzed the direction of the exchanges the results of which are shown in Table 20.1. Furthermore, by tracking the patterns in the interviews, three major themes emerged, which have been reported below.

	T1	T2	T3	T4	T5
T1	0	15	11	5	4
T2	12	0	6	6	11
Т3	4	12	0	6	3
T4	5	10	6	0	3
T5	4	12	5	12	0

Table 20.1 Intersection of the exchanges among the teachers

#### Findings

#### Interaction Patterns Among the Teachers

During the online PD, the teachers participated in 152 skilled conversations (see Table 20.1). The analysis of these exchanges revealed differences in the teachers' interactions with each other. In this regard, in terms of being initiators (the teachers who start a discussion) or addressees (the teachers who get responses from others), the participants had different contributions to the online discussions. As Fig. 20.1 shows, T1 and T2 both started 35, T5 started 33, and T3 and T4 started 25 and 23 interactions, respectively. Moreover, as the most active teacher in all threads, T2 was addressed in 49 interactions, T3 and T4 were similar in being addressed in 29 and 28 interactions, and T1 and T5 were addressed in 25 and 21 threads, respectively. In total, T2 was active in 84 interactions, followed by T1 being active in 60, and T3, T4, and T5 in 53, 52, and 54 interactions.



Fig. 20.1 Teachers' contributions to online discussions

#### Sample Interactions

As mentioned previously, six major categories emerged from the discussions. In the following extracts, the teachers chatted in Persian (their L1) and the exchanges have been translated into English. One major theme in online discussions was direct and indirect uses of mobile phones. In this regard, the teachers shared their evolving understanding and integration of mobiles into language classes, preparing materials, or supplementing course books. The following is an example in which T2 and T4 engage in an idea negotiation. In this exchange, T2 expresses her adoption of mobile phones for novel activities. Although she employs mobile phones for novel practices, she has relevant misgivings about being restricted to her students' internet search as the sole application of mobile phones. Her colleague (T4) advises her to seek learner feedback as this could have positive psychological impacts and T2 agrees with its implementation:

T2: I generally used to ask my students to turn their mobiles off during the classes. These days, I use my own mobile to play audio files, or to record students' responses in speaking activities. I also allow students to conduct internet searches to find out more about famous people mentioned in course books. This really helps to keep them motivated and changes the classroom atmosphere, but I'm not sure how far we can go in this direction!

T4: Good. What do you mean?

T2: I mean I don't know yet how to use mobiles for having new experiences in the classroom. I want to do more than internet searches!

T4: Ok, my advice is to ask students themselves. Let them decide on the type of activities and projects. This way you make them even more motivated!

T2: thanks for the advice, I should try that sometimes.

In the above exchange, T4 builds on T2's misgiving (the scope of using mobile phones) by checking his understanding via asking "what do you mean?" After T2's clarification, T4 adds to her knowledge base by advising her to ask the learners as a learner-oriented technique of using mobile phones, according to him, seems to have positive psychological impacts on the learners. T2 welcomes her colleague's suggestion and makes mention of "I should try that sometimes," which seems to show that she has paid little attention to engaging learners in activity selection. In this regard, T4 seems to extend T2' imagination (Wenger, 1998) in terms of prompting the idea of obtaining the learners' opinions to render T2's teaching more effective.

Another category of discussions was centered on challenges and benefits of using mobiles. As an example, in the following exchange, three teachers discuss how the small screen size in smartphones limits their applicability in the classes. In this exchange, T3 starts the conversation by lamenting over the small screen of mobile phones. The other teachers engage in the discussion, with T4 expressing his disagreement and justifying his idea with the alternative uses of mobile phones. The conversation proceeds with T4's acceptance of the other teachers' argument, concluding the exchange with encouraging the teachers to use the affordance:

T3: I think lack of mobile-related materials for language teaching makes it difficult to use them in the class. I tried opening a PDF file last session, but it was really difficult to read. I think we need books and content designed for mobile phone screens.

T1: Yes, it is really difficult to read on small screens! I do agree.

T4: Yes, indeed, I don't use my phone to read PDF files, but what you are talking about is not a real challenge! Phones are not meant for reading documents and they can do a lot of things for us.

T2: Nobody denies that, but as language teachers we sometimes need to check different-file formats. I think the screen size really matters! A language teacher needs a phone with large screen, probably a 7 inches' phablet.

T4: Yes of course, the bigger screen makes it really easy; these days' tablets are much similar to smartphones. They have same capabilities. So if you feel you are more comfortable with Tabs I really encourage you to take them into your classes and start using them. You will find technology really handy!

In the above exchange, T3 and T1 share the same concern and T1 shows her support by approving T3' utterance. T4 shows his own approval but simultaneously attempts to change the route of the interaction to extend his colleagues' mentality (what Wenger [1998] calls imagination) by clarifying the purpose of mobile phones. T2 shows support for T3 and T1 by mentioning novel information related to mobile phones and the necessity of using better technologies. T4 seems to act tactfully and avoids further opposition by agreeing with his colleagues. He aligns (Wenger, 1998) his identity with those of his colleagues to eschew the possibility of negative reaction from his colleagues and encourages them to use any technology in their teaching (what Wenger [2008] calls identity as community membership).

Teaching different language skills using mobile phones also attracted considerable debates among the teachers. The teachers shared and reflected on their practices in using mobile phones for teaching various language skills, such as webpages for reading, songs for listening and pronunciation, and audio recording for speaking. However, using mobile phones for teaching vocabulary occupied much of their attention. In the following exchange, T4 initiates the discussion by mentioning the use of mobile phones for checking online dictionaries. T2 continues the discussion by her query about online and offline dictionaries, which is followed by T4's comparative explanation of them. T2 seems to misunderstand T4 by accusing him of imposing a mobile affordance on the learners, yet T4 disambiguates this point by explaining his practice in more depth. T2 wraps up the discussion with "it is worth a shot," which seems to have encouraged her to try the affordance:

T4: I use mobile phones in the classroom a lot. One thing that we always do is using online dictionaries. I ask my students to google new words or sometimes look them up in online dictionaries.

T2: Interesting. So why are you using online rather than offline dictionaries?

T4: Because offline dictionaries are limited, first you need to buy them, but the online version is free. Second, online versions have more information and they are up to date. Third, when students connect to the internet, they enjoy lessons more!

T2: I see, but it seems that you are forcing your students to use data packages. Isn't that a problem?

T4: Good point, but not a problem at all. These days all smartphones are connected to the internet and buying data packs are common; using this for language learning does not impose extra costs on the learners. Additionally, students can share both mobile phones and internet connection in the classroom. I never ask my students to buy data packs for the classroom, I always try to use available resources in good way!

T2: Good for you, I see! It is worth a shot.

In the above exchange, T2 has queries and disagreements, but she attempts to voice herself cautiously by first using "interesting" and "I see" and then proceeding with what she wants to say. She asks a question (online versus offline dictionaries) as she wants to engage herself in the discussion (Wenger, 1998). She explicitly states her belief (forcing the students), but when she observes T4's open and knowledge-inducing response, she agrees with T4 and engages in reflecting on (Wenger, 2008) trying out the pedagogical technique.

A further theme identified in discussion threads was related to teachers' attitudes toward using mobile phones. In the following exchange toward the end of the PD, T2 talks about changes in her understanding of mobile applicability as a function of participation in online discussions. This perspective is welcome by the other teachers and T4, in response to T2's intermittent use of mobile phones, argues for the high potential of these devices. T2 continues the discussion and mentions a number of mediating factors in using mobile phones, terminating the thread with her using mobile phones across other proficiency levels:

T2: I have to admit that you guys made me think more deeply and differently about using mobile phones in language teaching! Although I have still my own reasons for not using them, I came to understand that I don't need to have a completely black or white picture of them. Sometimes they can help a lot, but sometimes they are just another source of distraction for the students.

T4: Glad to hear that! I do agree with this statement. But I strongly believe they are more helpful and hold a lot of potentials.

T2: Yes, it really depends on a number of factors, such as students' age, proficiency, and economic status. I'm going to use them more in my advanced classes.

In this exchange, T2 underscores the potentials of the CoP to contribute to her perceptions about mobile phones. She seems to have expanded on her own understanding, which is one of the most significant impacts of CoPs on individuals (Wenger, 1998, 2008). Most notably, she makes reference to a number of factors that undergird using mobile phones, which indicates that she has gradually developed her associated understanding as rooted in peer reflections and pedagogical trial of mobile phones.

Language learning beyond the classroom and teacher-learner relationships in light of mobile phone usage were the last themes in online discussions. In this regard, the teachers were involved in discussing different viewpoints and perspectives on extending the learning beyond the classroom. In the following exchange, T5 starts the conversation with his narrative of using social media to teach grammar and justifies his practice with increased focus on other classroom activities by engaging the learners in teacher-assigned activities. T1 takes the lead and argues that she wants to repeat the same strategy for listening, yet she lacks authentic input to upgrade the learners' competency. T4 suggests using podcasts and T5 encourages a learner-centered approach in accomplishing the task as this way the degree of ontask engagement also increases. T2 creates a twist in the conversation by taking issue with learner expertise in identifying the relevant material. In response, T5 uses the metaphor of "fly" in his argument for preparing the students for real-life learning affordances/challenges and giving them the associated autonomy:

T5: Last week I used social media to pre-teach some essential grammar to my students. I posted a link to a website on our class group which contained short videos teaching grammar. I use this strategy a lot, as it helps students to explore the web and find further resources themselves, and let us focus on more important things in the classroom.

T1: This sounds really interesting. I want to use the same strategy for improving my students' listening, but I want some suitable materials to initiate a kind of extensive listening project. I don't want to ask them to listen to the coursebook recordings; I want something more authentic and real to challenge them.

T4: So you can encourage them to listen to podcasts. There are plenty of them on the web, what you need to find the right ones.

T5: It is also possible to let them decide on their own. Just give them some guidance. These students are able to find anything online! Based on my experience if we let them decide on what they want to use outside the classroom, first we can create a balance between teacher-selected materials for use inside the class with those selected by learners for themselves. And second, giving them a choice really motivates them.

T2: I don't want to object but how we can ensure that learners are able to find and select the best materials for language learning outside the classroom? I think they need our support and expert opinion on available materials.

T5: Thank you, but don't forget that our final aim is to prepare them for the real world. We need to let them fly alone sometimes. And when they have their mobile phones always connected to the Internet, this could be a real learning opportunity.

In the above exchange, T5, T1, and T4 are engaged in discussing different aspects of using social media and support each other by adding to their knowledge and sharing their experiences (what Wenger [1998] calls engagement). T2 does not agree with the expressed ideas; she attempts to be less confrontational using "I don't want to object," but she virtually wants to be at odds with her colleagues by emphasizing the necessity of teachers' support for learners' online engagement. T5 attempts to approach his colleagues' disagreement smoothly by expanding on the utility of mobile phones for personalized and educational purposes.

#### **Collegial Identity**

As mentioned previously, the second question of the study probed the teachers' reasoning for their tendency to connect with certain colleagues more than others, if any. The analysis of the interviews indicated that three major elements undergirded the teachers' collegial identity: Gendered perceptions, personal connectivity, and perceptual (in)congruity.

Regarding gendered perceptions, both male and female teachers justified their further collegial connection based on the serenity associated with interacting with their colleagues. Female teachers (T1 and T2) argued that they tended to connect with each other more as they found their colleague as a source of equanimity who could support them in challenging situations. This degree of collegial association due to gendered perceptions was less among the male teachers, although two of them (T3 and T4) argued that they tended to connect with each other more—T5 did not see any difference in this regard. For example, in the extract below, T1 explains that she finds T2 a kind and helpful colleague. She holds that although other colleagues help her a lot, sharing the same gender has been a determining factor in her higher tendency to interact with T2:

Yes, I agree with you. T2 [name] was really kind and helped me a lot. You know, we are both girls and I think that we understand each other better. We also talked with each other in PV [private page] after the discussions to resolve the problems and laugh, show resistance, etc.

An interesting theme among the teachers' responses, especially male ones, was that two of them were more oriented toward connecting with their colleagues due to their personal interest in the colleagues.<sup>1</sup> They held that they tended to connect with the specific colleague(s) because of their personal tendency to establish relationships with them. This attitude of the teachers realized through replying to the target teacher immediately, sending emojies such as flowers, and liking their comments over the course of participation in the PD. The female teacher also argued that although she was interested in one of her colleagues, she attempted not to reveal this attitude in her interactions. For example, in the following extract, one of the male teachers explains that one major motive to participate in the discussions and his tendency to associate with a certain teacher was his desire to establish a relationship. Furthermore, he holds that this point motivated his own active participation and his enhanced internalization of the points the female teacher shared:

[laughs]... Yes you are right. Besides other points, let me be honest. I like her [name]. She really motivated me to talk and I wanted to indirectly hit on her. Was it obvious? [laughs]. I really tried to stop myself not to show my feelings, but I don't know whether I was successful.

<sup>&</sup>lt;sup>1</sup> It should be pointed out that it was even very interesting for us that the teachers held such perceptions and vented their feelings in the interviews. The major reason for the teachers' revealing their attitude was the close connection we gradually established with them. In the presentation of the data for this section, we have not even used the pseudonyms to retain the teachers' anonymity completely.

I don't know why, but I learned the points she mentioned more. I think that I am falling in love [laughs].

The third reason for the teachers' collegial association was both perceptual congruity and incongruity. The teachers argued that the image they had personally developed with certain teachers in their face-to-face communication extended to and mediated their online association: "*I knew what Mr. X is like and in the online discussions I expected his behavior*" (T5). Additionally, the compatibility of the teachers with certain colleagues in terms of their personality style also influenced the way they came to interact with their colleagues. For example, in what follows, T1 explains that due to her awareness of T5's behavior, she attempted to be less connected to him. She makes mention of his strict behavior and uses the metaphor of "godfather" to describe her colleague, which impeded her efforts to facilitate a collegial discourse:

I tried to talk less with Mr. X except when he asked me questions or I had to respond. Everybody knows him as he is even like godfather in the school and we expected this behavior in the online class. Actually, we are from two different worlds [laughs].

Another reason for the teachers' higher tendency to connect with certain colleagues was the opposite side. That is, as they did not know much about their colleagues' personality, behavior, interests, etc., they were interested in further participation: "It was a long time that I wanted to know how Mr. X thinks. I had heard some stories, but I wanted to see it myself. This motivated me to talk to him and know him more" (T2). Moreover, another reason for such association was that as they knew their colleagues are different from them, they attempted to engage in peer collaboration. For example, in the following excerpt, T3 holds that despite his awareness of his colleague's personality and thinking (hence the metaphor of "dead-end alley"), which was against those of his own, he attempted to interact with him more to challenge his knowledge base and bring about changes in him accordingly:

He [name] and I are totally different. I know that he is like a dead-end alley who is not that much easygoing. He also thinks that he is more knowledgeable than all of us. This may be the case but you don't have to show this to all in every situation. I usually tried to challenge him so that he can change his behavior. I hope that I have been successful.

These findings show the highly complex, layered, and interconnected web among colleagues working in the same context. Indeed, their connection involves not only formal collegial ties, but also emotional and sociocultural-reflective idiosyncrasies that come to influence the shape and content of their collegial identity.

## **Discussion and Conclusions**

The reported data indicate the dynamics of the teachers' online interactions, which had different forms and foci. Regarding the dynamics of the interactions, various themes underlay the teachers' participation, which formed the content of their discussions. These themes functioned as artifacts that facilitated collaborative engagement (Egbert & Borysenko, 2019) and gradually shaped their professional learning and knowledge sharing (van Bommel et al., 2020). The microgenetics of the interactions features a multifaceted complex that is imbued with teachers' attempts to reformulate, challenge, accept, and expand on their peers' contributions. It is along this knowledge sharing that teacher learning occurs (Korthagen, 2017) and teachers build a CoP that facilitates their professional learning (Little, 2002; Nazari & Xodabande, 2020; van Bommel et al., 2020). In this regard, the online CoP provided a venue for the teachers to not only share their opinions, but also it functioned as a means toward reaching mutual intelligibility and understanding to develop their knowledge base (Goodall, 2000; Lantz-Andersson et al., 2018; Parsons et al., 2019).

Situated learning envisages CoPs as sites for knowledge sharing wherein language plays an important role (Lave & Wenger, 1991). Socioculturally speaking, language is an artifact that shapes mind and is a means that forms both the subject and object of online interactions (Nazari & Xodabande, 2020). As the participating teachers of this study were language teachers, it seems that they could formulate their conversations such that they could retain the dual function of content and language sharing. This point was apparent from the linguistic artifacts that they used, from the way they formulated their utterances, which featured establishing initial emotional support (Kelly & Antonio, 2016); to the metaphors they used, which shows they know how to appropriate the language in a fitting manner; and to appreciate the shared knowledge and then transforming/expanding on the peers' knowledge base (for similar results see van Bommel et al., 2020).

The analysis of the teachers' interviews indicated that their collegial identity was mediated by emotional and sociocultural-reflective factors. Hargreaves (2001) discusses the importance of emotional ties in school contexts and concludes that successful teaching "depends on teachers establishing close bonds with key people around them" (p. 508). This point has also been underscored by Murray (2020), Nias (1998), and Pawan et al. (2003), who argue that the emotional assistance of teachers highly influences their sense-making of relationships and the way they construct their collegial identity. Regarding the emotional side of their collegial identity, the teachers tended to participate in the discussions more, which acted as a motivating factor in their engagement. The emotional potential of CoPs in general and online CoPs in particular has been little studied, yet it could be argued that such opportunities provide teachers with venues to both expand on their collegial identity and develop personalized understandings that could be extended to their personal life.

It seems that emotions are of higher significance in online platforms and interactions in contributing to collegial identity due to three major reasons. First, teachers may not have the opportunity to interact with their colleagues as much as they expect in face-to-face communications. Online platforms could be a conduit into increasing this mutual communication and hence interpersonal relationships by getting familiar with the multiplex of colleagues' emotions, which ultimately shapes their interpersonal identity. Second, online platforms enable teachers to take the initiative toward communicating with their colleagues more and thus enhance their level of familiarity with their colleagues. This undertaking in turn enables them to take the risk to engage in discussions that spirally shape their understanding of their colleagues. Third, it is quite likely for teachers to examine their collegial relationships from diverse perspectives (Murray, 2020; Nias, 1998). The ability to develop such enhanced understanding is seldom likely to happen in real-life situations. Due to their synchronous and asynchronous nature, online platforms enable teachers to engage in examining their interpersonal relationships both in real-time interactions and contemplating over their documented reflections to form their mindset about their colleagues.

The sociocultural-reflective impetuses shaping the teachers' collegial identity could be well interpreted within the lens of microlevel school climate and macrolevel social factors. Regarding the former, the teachers' image of their colleagues was extended to their online images as well. As teachers' images of themselves and their school play an important role in their sense-making (Beijaard et al., 2004; Day, 2002), it seems that teachers transitioning from the face-to-face world to the virtual world carry their interpretations that come to shape their interactions with their colleagues and hence constrain their collegial identity. This finding is not novel per se, yet it becomes significant when teachers are oriented toward leveraging online media as a transformational tool in bringing about change in their colleagues (van Bommel et al., 2020), as one of the teachers of this study stated. It, thus, could be argued that while teachers may not have the opportunity to fulfill such a purpose in their face-to-face transactions, online media provide the opportunity for teachers to both restructure their own cognitions and agentively attempt for collegial change.

Gendered perceptions of the teachers bear important implications for the way online PD is delivered, especially in cultures that are rife with stereotypical perceptions toward genders. Indeed, gendered perceptions of the teachers in this study functioned as a double-edged sword. On the one hand, it helped the teachers of the same gender to expand on their online interactions by personal engagement with their peer(s). This dimension of the teachers' collegial identity is in line with Nias' (1998) contention that teachers need "to establish boundaries between themselves and others, in order fully to establish their own professional identities" (p. 1260). That is, by associating with colleagues of the same gender, the teachers built smaller CoPs within the broader CoP of the study. On the other hand, this seemingly positive dimension could backfire and contribute to enlarging the disparity between the teachers. This is a point that we are also in doubt about and could be examined to delineate whether such CoPs have a positive or negative impact on the teachers' collegial identity as a coherent unit of community.

The results of the study offer two implications. Considering the prevalence of digital technologies in current spheres of education, it is imperative for teacher educators to engage with the affordances such technologies provide to develop a communal sense among teachers. As Lantz-Andersson et al., (2018, p. 312) concluded, "[t]here were only signs from a few studies in our review that different technologies were supporting different forms of teacher engagement and practice." Teacher educators should, thus, take the initiative to launch online initiatives that could form CoPs enhancing teacher PD. Such CoPs could be well established in online contexts as

teachers can make sense of their learning in personalized ways that are unique to them and in turn are fed by mutual understanding and knowledge sharing.

We believe that examining teachers' reasoning for engagement in online PDs is as equally important as the engagement itself. Examining this aspect provides a clear picture of teachers' sense-making of their membership and the associated identity they construct. As we observed, various a priori factors mediate teachers' collegial identity and the complex interpersonal relationships they develop in the virtual world. Teachers not only extend their schemata of their colleagues to their online interactions, but also they come to develop, restructure, and expand on their understanding in light of such communal membership. These findings could help teacher educators with unpacking the teachers' motivation to engage in online CoPs and further strengthening the motivating factors, which could ultimately contribute to enhancing the quality of life in their context. However, our study was conducted with five teachers. Further research with a greater number of teachers better demonstrates the dynamics of teachers' interactions and their reasons for community membership.

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# Part IV Redesigning Teacher Education—Challenges and Potentials

# Chapter 21 Teacher Training in Iraq—Approaches, Challenges, and Potentials in Building an Inclusive Education System



#### Frederike Bartels and Marie-Christine Vierbuchen

**Abstract** Various conflicts have led to the fragility of the Iragi education system across the board, even if in some parts of the country (e.g., Dohuk, Sulaimany, Erbil) the situation currently appears more stable and favorable—measured in terms of graduation rates in secondary education-than in other provinces (UNICEF MICS, 2019). Despite the already challenging conditions (e.g., chronic underfunding of the education sector), since 2013, increasing efforts to establish an inclusive education system in Iraq can be observed. In particular, the effort to enhance teacher's knowledge about (inclusive) teaching and special educational needs, as well as the corresponding skills and attitudes, has been intensified. The Ministry of Higher Education promoted the nationwide development of pedagogical training and academic development centers for teaching staff, to learn about innovative, competence- and student-centered teaching and learning processes. International projects endeavor to make inclusive educational content accessible to broad sections of the teaching university staff. The following article focuses on approaches, challenges and potentials associated with the development. Therefore, findings from a cooperation project (funded by the German Academic Exchange Service) between the universities of Kufa, Mossul, Dohuk, Garmian, Zhako (Iraq) and the universities of Vechta and Oldenburg (Germany) are reported.

Keywords Teacher training · Iraq · Pedagogy · Inclusive education · Challenges

### Introduction

Various conflicts have led to the fragility of the Iraqi education system across the board, even if in some parts of the country (e.g., Dohuk, Sulaimany, Erbil) the situation currently appears more stable and favorable—measured in terms of graduation

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rates in secondary education-than in other provinces (UNICEF Multiple Indicator Cluster Survey Iraq [MICS], 2019). Despite the already challenging conditions (e.g., chronic underfunding of the education sector), since 2013, increasing efforts to establish an inclusive education system in Iraq can be observed. In particular, the effort to enhance teacher's knowledge about (inclusive) teaching and special educational needs, as well as the corresponding skills and attitudes, has been intensified. The Ministry of Higher Education and Scientific Research (MOHESR) promoted the nationwide development of pedagogical training and academic development centers for teaching staff, to learn about innovative, competence- and student-centered teaching and learning processes. International projects endeavor to make inclusive educational content accessible to broad sections of the teaching university staff. The following article focuses on approaches, challenges and potentials associated with the development. Therefore, findings and implications from a cooperation project (funded by the German Academic Exchange Service) between the universities of Kufa, Mossul, Dohuk, Garmian, Zakho (Iraq) and the universities of Vechta and Oldenburg (Ger) are reported.

#### The Political and Educational Situation in Iraq

Iraq is a post-conflict state that is characterized by instabilities and fragility in several dimensions since the beginning of the twenty-first century. The displacement of thousands, the loss of security, and the destabilization of the public infrastructure and order followed the US military intervention and the overthrow of Saddam Hussein's regime in 2003. In a large part of Iraqi territory, but especially in central Iraq, the occupation of the Islamic State Iraq and the Levant (ISIL) led in 2014 to the next humanitarian crisis of considerable proportions and restrictions in public life. Many people left Iraq because they feared for their existence or became internally displaced people, with consequences for access to sufficient food, shelter, education, and medical care (UN Office for the Coordination of Humanitarian Affairs [OCHA], 2021). The situation in Iraq remains fraught and "characterized by multiple competing crises, including long-standing governance challenges, a contracting economy, poor public service provision, proliferation of armed groups, decades of cyclical violence and displacement, and a range of internal and external pressure" (OCHA, 2021, p. 17). In addition to the economic sector and the health system, the crisis affects in particular the education sector. Many children and adolescents, especially marginalized groups such as girls, children with disabilities, poor children, refugees, and people internally displaced, have insufficient access to formal educational offers. Currently, about 2 million children at primary school age are estimated to be out of school (Atwan & Sarbaz, 2020). Lahire et al., (2021, p. 3) claim: "At the heart of Iraq's human capital crisis is a learning crisis." The COVID-19 pandemic increased the crisis. Economic losses and widespread school closings from March 2020 to the end of the school year not only intensified the current livelihood worries of many Iraqis, but also have longterm consequences for the economic and educational development of the country.
The Human Rights Watch World Report 2021 (2021a, p. 351) draws a dramatic picture. They point out that it is the children and families who have already been particularly affected by flight and displacement, by poverty and conflict that have been most severely restricted in their development by the school closings, because they have had no access to digital learning opportunities and therefore could not even participate in the few existing offers. The goal of providing all preschool and school age children inclusive, high-quality and equitable education as it is aimed for in the Sustainable Development Goals (United Nations [UN], 2015) is particularly difficult to achieve for Iraq under the circumstances mentioned.

#### **Inclusive Education: What It Means**

Inclusion in educational settings is part of a larger societal framework around questions of social cohesion, participation, and justice (Guðjónsdóttir & Óskarsdóttir, 2020). The aim of an inclusive process is to increase participation in education and society and to give everyone the same right to access high-quality education. In poorer countries in particular, the first issue is giving access to formal education (Ainscow, 2020, p. 7). Inclusive processes in formal educational settings are about identifying barriers and providing structures for supporting individual needs, without emphasizing a specific group of marginalized pupils or any aspect of disadvantage. The Education for All movement in the early 1990s, the Convention on the Rights of Persons with Disabilities (United Nations [UN], 2006) and the agreement on the adoption of a global sustainability agenda (United Nations General Assembly [UN General Assembly], 2015) provided crucial impulses for establishing equitable education for every learner. As suggested by the European Agency for Development in Special Needs Education (2011), key principles in promoting inclusive practice include to hear the learners, to give them a voice, to enable them to actively participate in formal and non-formal settings and to provide appropriate resources (curriculum, teachers, learning material) within educational context to make this goal achievable. As part of the process, the importance of teachers in inclusive processes is repeatedly pointed out. Teachers are seen as facilitators of learning and actors in social change (Cochran-Smith, 2008), as on the one hand they can promote broad acceptance and appreciation of diversity in the population through their work at school. On the other hand, they have a high impact on a child's learning process (Hattie, 2009) and, with adequate knowledge of the needs and appropriate teaching skills (e.g., assessment, feedback, cooperative learning) can best meet and positively influence its development. Inclusive education therefore challenges the need for all teachers of all types of schools to be able to be prepared for the diversity in the classroom, "so that it can be a resource for both individual children and the classroom" (Dockrell et al., 2021).

The relevance of promoting inclusive education and focusing teacher education for inclusion in Iraq becomes obvious on several levels. First, Iraq is one of the countries with the largest populations of persons with disabilities in the world and a multiethnic, multireligious country (Committee on the Rights of Persons with Disabilities Iraq [CRPD Iraq], 2019). It is estimated that around 4 million are currently living in a condition of disability (United Nations in Iraq, 2020). Second, 38% of the population is younger than 14 years and more than 22% of children live under the condition of a disability (Atwan & Sarbaz, 2020). Thus, securing children's access to education and the recognition and appreciation of diversity in all dimensions of heterogeneity is a basic requirement for the positive development of the country. Improving on inclusive education can become a change-maker for building trust, for a sustainable peace-building process and for creating social cohesion, since education is viewed by Gill and Niens (2014, p. 25-26) as "a key place to start in promoting a humanizing and transformative agenda" within a wider range of peace-building strategies. Thus, an improvement of the educational situation in Iraq would not only lead to an improvement in general living conditions, but could also have an impact on changing beliefs and values in a society. However, as the UNESCO proposes, it is important to put constant effort into identifying and addressing "barriers that might prevent learners from accessing education, participating in the learning process, and increasing their capacity (academically and socially). These barriers might relate to attitudes, practices, resources, policies, institutional structures, administrative processes, infrastructure, and/or the environment" (UNESCO, 2013, p. 4).

#### **Inclusive Education in Iraq: Goals and Potentials**

At the political and normative level, many efforts have been undertaken in Iraq that express the desire for sustainable progress and stability to improve inclusive education. In the last decade, several political laws have been passed that strengthen people's rights and access to education. In 2013 the Iraqi Government signed the Convention on the Rights of Persons with Disabilities (United Nations [UN], 2006). In 2015 the Iraq committed itself to the global sustainability agenda and to offer inclusive, equitable quality education, and to promote lifelong learning opportunities for all (UN, 2015). This objective is confirmed in the Second National Voluntary Review Report on the Achievement of the Sustainable Development Goals 2021 Iraq (The Republic of Iraq Ministry of Planning National Committee for Sustainable Development, 2021). The Government of Iraq and Kurdistan Region of Iraq and the Ministries of Education have undertaken many activities with the support of civil society organizations and foreign governments to achieve the goals set. As emerges from research, among other things, the focus is on expanding the range of (pre-) school education programs with the aim of improving school readiness, increasing the participation in schooling and preventing school dropout (e.g., MICS, 2019). With a view to strengthening the rights of people with disabilities, the Republic of Iraq Ministry of Planning National Committee for Sustainable Development (2021) expresses visions that take people's rights seriously and actively strengthen their participation. The goal is:

(...) inclusive education that provides all learners, including those with disabilities and special educational needs, with a welcoming and supportive educational environment for all, irrespective of their differences. It secures equal and equitable educational opportunities, regardless of the types of disabilities, capabilities, disability severity, or age, in regular classes so that they receive a quality education that is appropriate to their level of preparation. (p. 65)

The role of teachers, their training, and the assurance and monitoring of quality on the level of higher education are taken seriously, as the measures taken by the Ministries of Higher Education and Scientific Research demonstrate. In the Kurdistan Region, for example, a key step at the university level is the initiative for a quality assurance process that ensures the quality of teaching within higher education institutions. The process is managed by the MOHESR and aims to ensure the Continuous Academic Development of the university staff members (Ministry of Higher Education and Scientific Research [MOHESR], 2010). Still, in order to advance the process of inclusive education, several hurdles have to be overcome in Iraq, which arise at the levels of attitudes, practices, resources, policies, institutional structures, administrative processes, infrastructure, and / or the environment, mentioned by the UNESCO (2013).

#### **Inclusive Education in Iraq: Barriers and Challenges**

A major challenge in Iraq is access to high-quality educational opportunities. Possibilities are still very limited, especially in rural areas, and are related to a number of other factors, such as attitudes toward the importance of (inclusive) education in formal educational institutions (especially for marginalized groups of people), infrastructure and a lack of qualified staff. As pointed out in the UNICEF Multiple Indicator Cluster Survey Iraq 2018 (MICS, 2019), in the areas of Iraq and the autonomous region of Kurdistan, only a small number of five year old children before school entry could be reached by organized, systematic forms of education (Early Childhood Education Programs). One main reason for that is lack of infrastructure, a lack of qualified staff, but possibly also a lack of knowledge in the society about the importance of learning in early childhood education programs. There is obviously a need to raise awareness, since early childhood is the most significant phase of development. Vulnerable groups, disadvantaged groups and groups at risk of discrimination such as girls and children with disabilities, children who grow up in rural areas and groups characterized by displacement and poverty, are particularly affected by restricted access to educational opportunities. With a view to the situation of girls, it is pointed to several dimensions being responsible for the limited access to educational offers. Research draws attention to traditional gender roles and norms, the level of education of the family, poverty, perceived protection concerns and trauma as well as a lack of equal rights for girls as being possible influencing factors (UN Assistance Mission for Iraq (UNAMI) & UN Office of the High Commissioner for Human Rights (OHCHR) [UNAMI/OHCHR], 2021, p. 5). In addition, the situation of children with disabilities is also characterized by restrictions in several dimensions. The

number of people born or acquired with a disability during the war, as well as the number of children and adults with mental disorders, has increased due to armed conflict. As reported, anxiety disorders are observed most frequently, followed by depression (Atwan & Sarbaz, 2020, p. 26). However, despite the signing of the UN Convention on the Rights of Persons with Disabilities, the legal situation and attitudes toward people with disabilities are not yet adequately reflected. Only a small and statistically unrecorded number of children attend school together with children without disabilities, and there is a lack of acceptance among the population to give children sufficient opportunities to participate in public life (Human Rights Watch, 2021b).

Another obstacle to overcome is the lack of infrastructure, concerning the provision of school buildings and material and a lack of qualified teaching staff. As the World Bank Report reveals, there is a shortage of school buildings, in particular in regions that had been under control of ISIS (Lahire et al., 2021, p. 10). The schools are chronically financially and staffedly undersupplied. About, 25% of children could not attend class in 2018, due to absence of teachers or school closure (MICS, 2019). There is moreover a gap of female teachers in rural areas with consequences for girls in the sense of missing role models (UNAMI/OHCHR, 2021, p. 12). In many local areas, classes are overcrowded and filled with traumatized children, and the educational staff is insufficiently prepared for this situation (United Nations Children's Fund [UNICEF], 2019). Teaching staff in particular suffers from a lack of competence in diagnosing learners' needs and adaptive teaching strategies (Lahire et al., 2021). It is pointed out that "(...) less than half (48 percent) of children aged 14 were able to read at second grade level, with literacy rates worsening by age group" (UNICEF, 2019, p. 8).

#### **Teacher Education for Inclusion**

Taking into consideration that every learner counts, a huge body of literature reveals that teachers competence, that means *knowledge*, *skills*, and *attitudes* (European Agency of Special Educational Needs, 2011), is highly relevant for acting competent and effective in an environment with a diverse body of students. Main *areas of teacher competence* 

(...) include subject and pedagogical knowledge, assessment skills, teamwork abilities, the social and interpersonal skills necessary for teaching, awareness of diversity issues, research skills, as well as organisational and leadership skills. (Caena, 2014, p. 9)

The European Agency for Development in Special Needs Education (2011) has taken a closer look at the skills required for teaching inclusive classrooms and has created an "Inclusive Teachers Profile" which highlights four main value areas, which teachers need in order to meet the needs of all learners. They should be able to appreciate student diversity (viewing student diversity as a resource), support all learners (they should have high expectations for the success of all learners and effective skills), they should collaborate with others (collaboration and teamwork), and ensure to constantly develop professionally (they should view teaching as a learning activity and as a task of lifelong learning). The teacher profile can serve as a guideline for the development of an initial teacher education for inclusion. However, teacher institutes around the world have grappled with the question of what teacher training should be structured and what the curriculum should look like in order to prepare teachers for inclusive schools. Accordingly, different approaches to enhance the inclusive idea into education systems and in particular in teacher training programs can be observed. Guðjónsdóttir and Óskarsdóttir (2020) summarize the following:

- adding single courses or modules of inclusion into general teacher programs for teacher students (e.g., how to work with heterogeneous groups, classroom management),
- delivering content of inclusion into all subjects for the in-service teacher at the graduate level (e.g., ideology of inclusive education, but also behavioral aspects, instruction),
- implementing collaboration between schools and universities for development of inclusion as a whole school approach.

In line with that, it is discussed whether teachers should be trained for all learners or whether specialists are needed who concentrate on specific groups of learners. The latter is considered problematic, because it may undermine inclusive idea (e.g., Cochran-Smith & Dudley-Marling, 2012; Florian & Camedda, 2020). In fact, it could lead teachers to believe that they cannot teach all learners equally, since they have not acquired the relevant qualifications as part of their studies (Guðjónsdóttir & Óskarsdóttir, 2020). Thus, Florian and Camedda (2020) point to recent research that "suggests that inclusive approaches to teaching should be a core element of general teacher preparation rather than a specialist topic" (p. 6). However, how and in what form, inclusive content should and can be conveyed at universities also depends on the national qualifications framework and national education policy intertwined with questions of barriers in implementing inclusive content, regarding structural requirements, curricular conditions, and qualified teacher educators in initial teacher training programs.

#### **Teacher Education for Inclusion in Iraq**

Teacher training in Iraq is the responsibility of the federal Ministry of Education and the Ministry of Higher Education and Scientific Research. Currently, teacher training in Iraq is characterized by a strong emphasis on the technical dimension. As a recent study on teacher training curriculum at the University of Mosul reveals, the general educational content (pedagogical content knowledge) has a significantly lower priority in teacher training programs than the subject-specific content (Symeonidis et al., in press). Against the background of the needs described in Iraq, it seems urgent to focus on the pedagogical content in the general teacher curriculum. Teachers in Iraq need a qualification framework that ensures that competencies can be acquired and which enable teachers to deal professionally with heterogeneous learning groups, i.e., to be able to react adaptively to the needs of all learners. However, general pedagogical knowledge is crucial. Since it is the dimension of knowledge that enables teachers to use adaptive teaching strategies and evaluate students' learning (König & Kramer, 2016).

Since Iraqi teachers are claimed to have a lack of competencies in the dimension of pedagogical and psychological knowledge (e.g., Lahire et al., 2021, p. 3), teacher training institutes are encouraged to closely force learning opportunities within their teaching curriculum in which preservice and in-service teachers are able to acquire adaptive teaching strategies.

The government has made great efforts to strengthen the position of teachers and improve their qualifications. In order to achieve this, among other things, several steps were taken at the university level, since the didactic and content-related skills of university teachers for teacher training must first be improved. In the Kurdistan Region, for example, Pedagogical Training and Academic Development Centers have been set up at all universities across the board, with the aim of providing university members with sufficient educational skills. The facility is part of the university and the pedagogy course is compulsory especially for the applicants who are trying to pursue their first scientific title as "Assistant lecturer" and second title as "Lecturer." The course lasts for at least six month and participants have to take part two times a week. The university staff members are taught topics such as ICT, digital learning tools and platforms, student-centered learning (SCL), research writing methodology, competence-based learning, innovative teaching and education entrepreneurship. Teachers who teach the courses for the university staff members are usually prepared for it in short-term courses. However, most of them are not specifically majored in pedagogy. It seems particularly problematic that the courses are not free of charge. It can therefore be stated that further adjustments will be necessary at the university level (e.g., curricular adjustments, free advanced, and further training offers for teaching staff), in order to establish a structured and barrier-free acquisition of knowledge, skills, and attitudes at the teaching institutes. This is where our project comes in.

# The Project "Improving Inclusive Teacher Education in Iraq"

In 2019, the project "Improving Inclusive Teacher Education in Iraq" funded by the German Academic Exchange Service (DAAD), started at the University of Vechta in cooperation with the Carl von Ossietzky University of Oldenburg (Germany) and with the Iraqi Universities of Dohuk, Garmian, Kufa, Mossul, and Zakho. The overarching goal of the project is to provide Iraqi society with qualified (university) teachers for an inclusive education system. Linked to this, the project intends to enhance Iraqi

higher education in the field of teacher training for special needs teachers and to modernize the general teaching profession. As already mentioned in the article by Bartels et al. (2020), in line with the United Nations Agenda 2030 (UN, 2015) the project activities carried out intend to ensure the following: enhance inclusive and equitable high-quality education (goal 4), support gender equality and the empowerment of women (goal 5), promote the social inclusion of people with disabilities and improve their educational opportunities (goal 10), and promote sustainable development by encouraging and promoting effective international public partnerships, sharing experiences, and developing resource strategies (goal 17).

Against the background of reported possible approaches of inclusive teacher training (e.g., Florian & Camedda, 2020) and the missing skills of Iraqi educators in adaptive teaching, a possible starting point appeared to train educators from the participating partner universities together as specialists in the field of special educational needs and general teaching for inclusive education. To reach the objective, a cooperation between general (University of Vechta, Ger) and special educational expertise (University of Oldenburg, Ger) seemed to be promising.

Using a cascade model of teacher training (find more detailed information in Bartels et al., 2020), activities carried out aimed to train educators to become multipliers (see Fig. 21.1), but in two different fields, which are the core areas of an inclusive school system: *special needs education* and *inclusive education*. The approach unites the idea that participants are learners [Level 1] (learning the content) and at the same time acquire didactic and content-related competencies (learn how to teach) that allows them to pass their knowledge on to their own students or colleagues and in-service teachers [Level 2]. This also includes changing structures and proceedings within the context of teacher training institutes. For this purpose, experts from the University of Vechta (Ger) train 15 persons (two scientists and one responsible person from each of the five participating universities) as multipliers for inclusive education for general teaching and experts from the Carl von Ossietzky University of Oldenburg train 15 in special educational needs. As you can see in Table 21.1,



Fig. 21.1 Framework of the project "Improving Inclusive Teacher Education in Iraq"

Topic of the workshop	Content
Inclusive teacher education	The inclusive school—requirements and conditions
	Effective teaching in inclusive classrooms
Classroom management	Introduction and basics
	Example: the good behavior game
Differentiation and individualization	What it means and how to work with it for instructions in a school for every learner
Inclusive teaching strategy	Direct instruction
	Cooperative learning methods
Hospitation: visit different institutions that work inclusive	<ul><li>(1) Kindergarten</li><li>(2) Elementary school</li><li>(3) Secondary school</li></ul>
	Reflection and discussion about the experiences from the different schools and institutions
Teaching and learning in higher education	Constructive alignment
Individual development plan	Planning effective education for children with special needs
Multiprofessional teams	Co-teaching
Multilevel instruction	Response to intervention-teacher tasks
Development and reflection	Our multiplier system

 Table 21.1
 Overview of the content of the summer school in 2019

several core topics that have been recommended in research to be fruitful in inclusive classrooms (e.g., Mitchell, 2014) as well as topics that are considered to be important to enhance didactic competence of teacher educators (e.g., Biggs & Tang, 2007) have been included in the training.

In 2020, the measures had been heavily modified due to the COVID-19 pandemic situation. In order to continue to guarantee the quality of further training within the current social conditions in connection with the COVID-19 pandemic, the planned project was sharpened to expand the digital learning spaces developed. A particular focus was on supporting the implementation of inclusion-oriented, barrier-free digital teacher training. The digital learning platform LAYA—Learn as You are was originally developed by *Kopf (head), Hand (hand), Fuß (foot) company* (Berlin, Ger) and the Humboldt University Berlin (the team from Prof. Dr. Pinkwardt) in a program from ERASMUS + . In a process of collaboration, the University of Vechta and the Humboldt University Berlin modified the platform for the project in an intense participatory process of monthly digital meetings with two working groups (lecturers for the content and IT specialists for the IT adaptation). LAYA was tailored to the needs of the Iraqi environment with the universities, programmed to enable barrier-free access to learning materials and e-learning in the field of inclusive education for

teachers. It is planned to completely migrate the learning platform to the Iraqi universities. In addition, some e-conferences were held in 2020 and 2021 with the aim of conveying inclusive content and making progress visible. Giving access to digital learning spaces for the provision of subject-specific (special / inclusive education) pedagogical-didactic materials, literature and media as well as for participation in sociopolitical and technical discourses continued to take place in cooperation with the Carl-von-Ossietzky University of Oldenburg. This is how the further development of the training courses and the need- and process-oriented support of the multipliers beyond national borders and despite the travel restrictions caused by the pandemic succeed.

#### **Process-Oriented Program Evaluation**

Using an action research approach, we used various instruments to check whether our measures were successful and to find out about the proceeding on implementing inclusive education at the Iraqi teacher training institutes.

#### Method

As part of the Summer School in 2019, participants took a survey to report the extent to which the content of the workshops was well chosen and expectations were met (*Level 1 Outcome*). Participants rated on a 6-point Likert-Scale (1 = very good, 2 = good, 3 = satisfying, 4 = not satisfying, 5 = not good, 6 = not at all helpful) their subjective outcome on the topics delivered. The surveyed participants were the n = 30 teacher educators from the participating universities. We report only descriptive findings as the scale mean-average (*M*) in this paper, due to the low number of participants surveyed. The needs of the participants, captured by open-ended questions, are also reported.

As part of another workshop in December 2019, participants came up with factors that in the future can and should be improved and worked on in Iraq and the autonomous region of Kurdistan. They represent both the point of view of the responsible university managers (like presidents, vice presidents, deans, or the head of international office) and the lecturers' perspectives.

As another measure, we used an open-ended questionnaire in June 2020 and asked the participants to reflect on the process of changing structures and implementing inclusive education at their teacher training institutes (*Level 2 Outcome*). It complemented also presentations from conference in December 2020 in which the universities reported on local steps and developments. Fields of interest were proceedings on (1) implementing inclusive education and the (2) Bologna process, (3) digital infrastructure, and (4) quality management in higher education. In this article, we will just present a small selection of the results. With regard to the proceedings, we will limit ourselves to presenting the results for the implementation of inclusive education (1). This area comprises two sub-questions preceded by short text modules, clarifying our intention with the questionnaire.

#### Findings on Level 1: The Relevance of Workshop Content

None of the workshops and content delivered during the Summer School 2019 was rated lower than M = 1.54, which demonstrates that the participants were overall satisfied with the educational offer. As expected, the contents delivered in the workshops about inclusive teaching strategies (direct instruction, cooperative learning) have been rated to have the highest impact on their work (M = 1.0), followed by visits of German educational institutions that work under the conditions of inclusive education (primary and secondary schools, kindergarten) (M = 1.14). Also, the Workshops on Classroom Management (M = 1.23), followed by the Workshop on Teaching and Learning in Higher Education—Constructive Alignment (M = 1.27), were perceived as highly influential on their own work. The latter was sought to give crucial impulses for competence-oriented teaching and learning approach within the teacher training institutes. Participants also largely agreed on the benefit of collaborating and learning together as a team in the workshops (general teachers/ special educational needs teachers; M = 1.4). The topics participants wished to follow up on were classroom management, differentiation and individualization and inclusive teacher strategies. Moreover, they asked to get a deeper view into types of assessment and multilevel systems of support. Some of the participants of the summer school voted for "all topics" as important to follow up, which shows that the topics of the project, here especially the contents delivered in the summer school, matched the needs of the participants from the universities from Iraq and Kurdistan.

#### *Relevant Factors Considered to Improve Teacher Training for Inclusion in Iraq*

The following aspects were reported by participants of the Conference in December 2019 as necessary in order to initiate processes of inclusive schools and teaching development at the various levels (society, university and school) and in order to have a sustainable effect on processing inclusive education and an inclusive society.

*Improvement on infrastructure at higher educational institutions:* Depending on the requirements at the university, the participating universities reported to aim at three main perspectives on structural organization of teacher education: A supplementary module in general teacher training that deals with inclusive content, a course that is an extension of the undergraduate courses and an in-service teacher training center. *Improvement on networks and collaboration*: A closer cooperation between universities in Iraq and between universities and schools is sought. The aim is, among other things, to offer extra-occupational training courses for teachers' committees at various schools, in order to develop the educational system in a collaborative and cooperative manner in the direction of inclusive education through trusting networks.

*Improving communication*: In order to spread inclusion across society, an increased and strategic use of social media and online discussions is envisaged. The aim is more transparency and more information exchange in order to bring the content and developments into the schools. This also requires improved access to content in online sources and access to research and literature.

*Improvement on qualifying teachers for adaptive teaching:* Another level for development was suggested to be the improvement of qualifications (e.g., didactical, methodological, assessment), for the teachers in schools and the teacher educators. The participants claimed to gain more knowledge about acting professionally in huge classes, gain more organizational knowledge, and get a more detailed understanding of different disabilities and how to deal with them.

*Improvement on Research and Evaluation:* As another goal and a necessary part of successfully promoting the development of inclusion in all dimensions and institutions was named the cooperative, systematic scientific research, which accompanies the process intensively and reports on progress, hurdles, and future prospects. This includes research collaborations with foreign universities and research collaborations between Iraqi universities in order to gain insights into the current situation and future prospects and to transfer international results of teacher training and school development for inclusive education to Iraq and the autonomous region of Kurdistan.

#### Findings on Level 2: Proceeding on Implementing Inclusive Education in Teacher Training

In order to learn more about the process of implementing inclusive education in the field of teacher training or in general education in Iraq in 2020, we asked the five partners to give us feedback on the following questions: (1) *How far has your university got in the past year to establish inclusive education and did you make the process visible* (e.g., *created a module, regular lectures*)? (2) *What are your next steps in implementing inclusive education*?

The participants marked the following aspects: All participating universities started to raise the awareness about the importance of inclusive education, by using multiple channels and addressing multiple stakeholders in society, university and leaders of educational institutions. Some universities even started to provide a clear concept and definition of inclusive education at their universities (University B).

Moreover, the participating universities specified "inclusive education targets, indicators, measures, and outcomes and we promote an understanding of existing structural, educational, and cultural challenges to successful implement [sic]" (University B). Most of the participating universities did so "by delivering some lectures and creating a specialized unit for these purposes" (University B) or by carrying out workshops and lectures held for local elementary school teachers (University D) and/or university staff members (university staff, 15/ head masters, 15) (University C). Some of the universities started conducting research (e.g., University A, D) on attitudes toward inclusion and inclusive practices at schools. Some pointed to the need for new measures and infrastructure to obtain the optimum implementation (University A). Regarding the second question (What are your next steps in implementing inclusive education?), the following statements of the universities returned: University B pointed out that they are working on "creating a well-designed implementation strategy that includes a clear plan, evaluation, and school review process; providing inclusive education training, sustained support, and resources for all teachers and school leaders; and we aim to work shoulder by shoulder with the national leadership on inclusive education policy, education management information systems, curricular reform, and coordinating social systems such as inclusive education and inclusive employment," whereas University C is working on adding a special module for inclusive and special education in their college of education. They also reported that they work on opening a special education department in the college of basic education and providing necessary numbers of staff and facilities. University A also reports to keep up on continuing to raise awareness and working for some changes in laws and infrastructures.

#### Discussion

Summarizing the results, we could reveal that according to the approach from Guðjónsdóttir and Óskarsdóttir (2020), all main perspectives to prepare teachers for a well-functioning teacher education for inclusion have been pointed out as relevant by the participants of the ongoing project.

Visiting educational institutions with the participants of the project led to an intensive reflection on possibilities of change, including the attitude and role of teachers, headmasters as well as on infrastructure. The observation raised the awareness of changes being possible. One participant said: "It changed some of my beliefs about teaching and learning in a very positive way." Thus, the need to do more hands-on training and to observe teaching and learning in inclusive schools became an important issue in order to change perspectives on teaching. Furthermore, the participants claimed to clearly need to improve and work on the educational infrastructure for children with disabilities and still have too little knowledge how to achieve this. In addition, teaching administration is another important topic that they would like to deepen their knowledge. Types of assessments seem to be in particular of interest of the participants, but obviously, assessment is rather associated with students' outcome in a sense of giving the students a mark and not in a sense of formative assessment (finding out about students' (special) need).

Regarding the question, what teacher training should look like in Iraq, the participants widely agree with Florian and Camedda (2020). There is a need for teachers who are competent and well trained in special needs education and teachers who have the specific skills to meet the needs of children of all young learners in general classroom and to unite them. The participants seem to be convinced: Developing inclusive education needs both.

We found that the cooperation between the universities was a fruitful step and the efforts of the individual universities and lecturers, as well as those of the responsible persons being involved in the project demonstrate a high commitment. However, there is still a great need for further development of preservice and in-service teacher training for inclusive education, and it is difficult to change firmly established (educational) structures. For a long term, sustainable success it needs to raise awareness of the importance of high-quality, equitable education in the society. It needs positive attitudes toward inclusive schools and it needs a teacher preparation program that creates learning opportunities which give the chance to qualify both, preservice and in-service teachers and in which knowledge, skills and attitudes for inclusive classroom is increased (Borg et al., 2011). As the participants of the project agree, reaching this goal for teachers in school will need a development of university structures, change of curriculum and methods, and it takes continuous, systematic collaborative research to monitor progress.

#### Conclusion

Curricular advancement of teacher education programs and the development and implementation of special needs education remains a challenge and a goal in Iraq and the Kurdistan Region. It has become clear that teachers at schools, as well as teacher educators need more local networking and support and need to be introduced to inclusive practice earlier. They need more opportunities to test and reflect on strategies for implementing effective education for every pupil. Structural changes at the university level must therefore be stimulated to ensure barrier-free access to high-quality material and knowledge about inclusive education. Emphasizing (inclusive) pedagogical skills in teacher education curriculum and strengthening teacher educators' skills seems an appropriate approach.

Continuing projects at the universities of Oldenburg, Vechta, and Flensburg, which have just been approved by the DAAD, are taking this task into consideration and aim for increased cooperation also with other actors involved in the process. Inclusive education must also be recognized in Iraq as a task for society as a whole. In contrast

to other countries, however, which have to cope with less intense humanitarian problems, the initial situation here is even more precarious in a complex and dynamic process, which demands a stringent and sustainable approach.

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### Chapter 22 Achieving the Promise of a First-Rate Education: The UAE's Attempt at Transforming Education Through the Lens of the Leadership for Learning Theoretical Framework



#### Frederic E. Conde

**Abstract** This chapter presents a synopsis of what's happening in the UAE to improve the quality of education through the lens of the Leadership for Learning Framework's five action area. Specifically, our research placed emphasis on the approach the UAE has taken by highlighting its strategic direction using a theoretical framework and citing programs aligned with the intended direction. The key components offer opportunities for comparison in the area leadership, systemic alignments, strategy, sustainability, and prospects for strong collaborative work. The goal is not to enter in a program evaluation but rather to determine if the reform initiatives are anchored to a framework that has a proven research value.

Keywords Leadership  $\cdot$  United Arab Emirates  $\cdot$  National identity  $\cdot$  Supporting practice  $\cdot$  Learning communities

#### Introduction

#### The Goal

The UAE is on quest to raise its education profile as measured by international assessment results such as Trends in International Mathematics and Sciences Study (TIMSS); and the Program for International Student Assessment (PISA). It endeavors to be "among the top 20 countries" (Ministry of Education, 2021a, 2021b; Vision 2021, 2010). At its core, the declaration is bold. One... that when achieved, begins to set the trajectory for the societal transformation expected in the UAE over the next 50 years. Consequently, UAE national leaders continue working hard to see the vision through.

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#### The UAE in Context

To understand what is happening in the UAE related to education one must understand the UAE has an insatiable appetite for being the best at what it seeks to entertain. Over the last decade, the United Arabic Emirates distinguished itself in multiple areas. As it continued to push and strive to secure the future of the small but mighty nation. It's a nation of firsts...as supported by its engineering and architectural feats such as the Burj Khalifa, which to date is the tallest building in the world; The Aldar Headquarters building, known for being the first spherical building in the Middle East; or with the Emirates Mars Mission, which launched the Hope Probe, making it the first unmanned space exploration mission to originate from an Arab nation. Again, I say, the UAE is a nation of firsts, as documented by the numerous Guinness World Records attributed to its name. And now it has set its sights on education. While the UAE can't claim the #1 spot in the world of education, yet, it has made significant efforts that are in line with the ambitious goal of being among the top 15 countries in the world in education as measured by TIMSS; and among the top 20 in the PISA. The primary focus of this chapter is to shed light on what is happening within the UAE's education sector to help reach their quest.

#### Aims and Methods

We aim to emphasize the approach the UAE has taken by highlighting its strategic direction using a theoretical framework and citing programs aligned with the intended direction. The goal of this body of work is to give examples of the nation's strategic efforts designed to increase the quality of teaching and learning which are contributing toward achieving the massive transformation the UAE seeks. Ultimately, the UAE wants to empower it citizenry with higher degrees, more skills through continuous learning, cultural awareness, and societal engagement to transform the overall quality of life for both the individual, and the collective (Government of Abu Dhabi, 2007; United Arabic Emirates Vision 2021, 2010).

Over the course of its journey, like many other nations embarking down the same path, it has realized that the development of people is not so easily achieved as building the Burj Khalifa. And while that is an astronomical feat, it pales in comparison to educating the nation's youth. But they persist, because they know that it is the only way to reach their lofty goals. Evidence of this will be seen in the examples of programs shared through the vantage point of the theoretical framework. In the end, we hope that you come to understand the impressive journey the country embarked upon 50 years ago, when they transitioned from the Trucial States into the United Arab Emirates.

#### The Importance of Education to the UAE

As the population of the UAE continues to grow, so too does the value of education. Education continues to be extremely important. If the nation is to develop and sustain its global competitive status, it must properly educate the next generation. This is the only way to achieve its desire of transitioning from an oil driven economy to a knowledge-based economy (Government of the United Arab Emirates, 2014). If the grand plan of the UAE is to achieve a First-Rate Education (Vision 2021, 2010), then it must continue to implement first-rate efforts toward that end. Helping the UAE solidify its commitment, are UNESCO's Sustainable Development Goals (UNESCO, 2016). In particular SDG Goal Four, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". This goal identifies "the development of the education sector as one of the most important priorities." Reiterating this point, are the words of the Ministry of Education, H.E. Hussein Al Hammadi, "...providing education to all members of society is one of the key instruments". He further states, "it can only be achieved through the national vision targets", (Ministry of Education, 2021a, 2021b). This philosophy, I believe, drove the formation of the Ministry of Education's goals (2021a, 2021b) that seek to have significant impact on:

- continuous lifelong learning.
- enhancing the role of technology in serving the educational process.
- ensuring the best educational practices and modern curricula (Copeland & Knapp, 2006);
- establishing innovation as a lifestyle to ensure that students are equipped with practical skills; and
- promoting a National Identity (Ministry of Education, 2021a, 2021b; United Arabic Emirates National Committee for School Leaders' Licensure, 2020; United Arabic Emirates Vision 2021, 2010).

#### Governance in the UAE's Education Sector

Who exactly is tasked with this grand endeavor? Let's try to put things into perspective. Figure 22.1: *The UAE Education Sector Infographic*, provides a brief depiction of the what the associative nature of the educational landscape currently is. The radial structure connotes the independence and intradependence of related agencies within the Emirates. It is important to note that more than one Emirate has an independent authority regulating its private schools. But most, if not all, are dependent on the Ministry of Education for government school regulation, as each Emirate has seceded the responsibilities of the government schools to the Federal entity (Department of Education & Knowledge, 2021). Most recently, the UAE authorized the creation of the Emirates School Establishment (ESE) based on Federal Decree Law No. 15 of 2016 signed by the His Highness Sheikh Khalifa bin Zayed al Nahyan, President of



Fig. 22.1 UAE education sector infographic

the UAE (United Arab Emirates Cabinet, 2021). The ESE is an autonomous operational entity created to oversee public school education in the UAE. The rationale for the latter was to ensure the unification of all public education and to offer those government schools that same high-quality oversight and attention provided to their counter parts within the UAE. However, notwithstanding their decrees and independence to function autonomously, the local authorities are mostly in alignment with the national education policy efforts which fall under the Ministry of Education, hence the dotted line informally connecting all educational governing entities within the UAE.

Irrespective of their awesome responsibilities within the UAE, the Ministry of Education surrounded by it supporting casts of local Govt Authorities all work together to promote and enhance the national education agenda. In fact, it has been through their collaborative efforts that the UAE continues to climb in the PISA ranking, nearly reaching their goal of being among the top 20 countries (United Arabic Emirates Vision 2021, 2010). While each has strong independence, their respective leaderships endeavors to operate under one premise, providing a quality education for all individuals within the Emirates.

#### Introduction to the for Leadership for Learning Framework

To appreciate the educational efforts on the ground one must seek to understand that the quest for good education is grounded in a solid teaching and learning framework. As with any good, road map, we must have a frame of reference that is research based, we looked to the literature to qualify its efforts. In consideration of these efforts, programs purported to have a positive effect on teaching and learning, enhanced teacher quality and promoted student achievement were our focus. For this chapter, we view through the lens of the Leadership for Learning Framework (LFLF) (Copeland & Knapp, 2006) to highlight the positive landscape within the UAE education system. The LFLF centers around three key learning agendas supported by five key action areas. It offers a sound framework for program improvement and transformation, which is what provided the motivation for using it as a theory of change to examine the education efforts within the UAE. In the Leadership for Learning Framework (2006) Copeland and Knapp make the same argument as the Minister of education that transformation from the current state to the future state...a firstrate Education, cannot occur if leadership and learning are disconnected from other societal constructs.

Attempting to support their position, the authors (Copeland and Knapp, 2006), stated that the LFLF's five essential components are a "must have" if major reform efforts are to take effect. The key components offer opportunities for comparison in the area leadership, systemic alignments, strategy, sustainability, and prospects for strong collaborative work. It also provides the occasion to share practical efforts with the potential for impact. The goal is not to enter in a program evaluation but rather to determine if the reform initiatives are anchored to a framework that has a proven research value. By offering a comparison to the LFLF, we add value to the work being accomplished by so many dedicated professionals within the UAE.

As stated earlier, the UAE has huge goals and therefore, it must enable a substantial theory of change (Fullan, 2006) to match those ambitious reform efforts. The components of the LFLF proffer researched efforts that have shown to have powerful effects on performance in one or more of the three learning agendas (student learning, professional learning and systems learning). When it is all said and done the framework comparison is intended to provide food for thought through reflection and alignment.

#### Why Did We Choose This Framework?

Since we are keen to identify programs that are operational and have the possibility of positively impacting the national agenda, the focus of this chapter focus was placed on the essentials of the Leadership for Learning Framework. The thought being that the leadership for learning framework provides a solid research base to guide the UAE reform efforts. Therefore, as we move to understand the educational landscape

within the UAE our task is to outline the framework. So, we will first define the related action areas that comprise the Leadership for Learning Framework and then provide key initiatives supporting the five action areas which are:

- Establishing a focus on learning,
- Engaging external networks that matter for learning,
- Acting Strategically and Sharing Leadership,
- Creating Coherence, and
- Building Professional Communities that value learning.

#### The Leadership for Learning, Action Area #1 ... Establishing A Focus on Learning

#### Defined.

At the present time the UAE's wealth is built on the world's demand for oil, making it a market driven economy. The national leadership in their wisdom has indicated a shift is required to maintain the independence and sustainability of UAE. Accordingly, they have set their sights on transforming the nation into a knowledge-based economy. With this goal, it aims to change the dynamics of the country by raising the intellectual capital of its people. The UAE believes that establishing a community that is less dependent on commodities with one that has a "greater dependance on knowledge and information, and is equipped with high level skills" (OECD, 2005) is the key. To this point, they have taken significant efforts toward using a focused learning approach. Copeland and Knapp (2006), the authors of the framework stated that instituting a focus on learning is about communicating shared values not through words but through actions. The latter is to ensure everyone maintains clarity of vision and remains mission-driven, which is creating "a first-rate education" (Vision 2021, 2010).

With respect to education, the UAE leadership has committed to transforming the way students are educated by allocating significant amount of money for the cause. According to the UAE education budget, the federal government allotted a five-year average of AED 9.53 billion between fiscal years 2016–2020 (Ministry of Education, 2021a, 2021b). This money goes to fund programs designed to support the overall goal. More specifically, the funding contributed to the development of initiatives that promote UAE values, establish high standards, and offer professional development for human capacity. These actions align with Copeland and Knapp's initial definition.

#### **Examples of Supporting Practice**

### A Focus on Learning Through the Introduction to Professional Standards

As the United Arabic Emirates (UAE) celebrates its golden jubilee it continues to strive to act in a way that breathes life into the vision. The UAE remains committed to strengthening the field of education and driving systemic improvement in student achievement to provide a world-class education (Vision 2021, 2010). The UAE believes that professional standards are key. They help set the ground-work for improving performance, accomplishing goals, strengthening support roles and processes for development, while affording great opportunities for personal growth (Marzano, 2009).

The UAE is keen on raising the bar through the creation of strategy that delivers the highest scientific and professional education standards for improvements in the quality of life for all citizens. It seeks to compete on a global stage by insisting on advancing the quality of education to create a pathway to a diversified economy. The push led to the development and use of national teachers' and educational leaders' standards (Supreme National Standards Committee, 2015). These standards form the basis for other programs that promote and enhance the quality of the teaching and leadership workforce.

The establishment of reliable professional standards throughout the UAE offers the opportunity to reconsider what is good practice for teachers (Ministerial Council on Education, Employment and Training Youth Affairs, 2003); as well as, emphasizing national priorities. It permits for uniformity in practice, methods, and reasoning (Marzano, 2007), through a structure that is bespoke and fit-for-purpose. It also serves to reinforce the importance of the professional growth and development of all individuals within UAE schools.

According to the Supreme National Steering Committee (2015), the UAE teacher' and educational leaders' aim to:

- stipulate required expertise and expected performance to guarantee increase student outcomes at par with their international counterparts (AITSL, 2021; Council of Chief State School Officers, 2013; Marzano 2007)
- strengthen other platforms used for monitoring, training and development, appraisal and selection;
- augment the skills of staff via reflection and keen self-reflection; and
- underscore the importance of Arabic language, Emirati culture and heritage, including Islamic values.

## A Focus on Learning Through the Launch of the Teachers' Licensure System

Another key initiative that launched within the UAE as a way of reinforcing its commitment to equity for all students, while also helping to "establish a focus on learning" is the professional licensure system (Ministry of Education, 2017). The goal of the program is to ensure the delivery of high-quality instruction by licensed teachers in all schools (Teaching Council of New Zealand, 2017; AITSL, 2021). The regulatory system helps to establish a primary focus on learning by using the professional standards as a baseline for competence. It is also designed to offer significant quality improvements by introducing high expectations of instruction, aligned training solutions, and assessments that measure high standards in pedagogy and subject matter content. The model offers school professionals opportunities to enhance the profession while minimally establishing a measure of high-performance across the UAE's instructional personnel. The licensure system requires instructional staff to obtain passing marks on two tests (subject areas exams, which are driven by the primary individual's qualification, and a general knowledge test that solidifies individual pedagogical understanding). It offers standards-based professional development and retesting opportunities for those falling below the licensure standard. The licensure system introduced across the UAE issues two types of licenses (Ministry of Education, 2015):

- **Transitional license**—which is a temporary permit allowing individuals to work in the field once they have met the initial registration and equivalence processes set by relevant authorities; and
- **Certified license**—a full license issued upon completion of the minimum conditions, which include obtaining passing marks on all assessments and meeting all educational requirements set by the UAE.

# The Leadership for Learning, Action Area #2 ... External Environments that Matter for Learning

#### Defined.

The research of Copeland and Knapp (2006), in their leadership for learning framework, indicates that reform agendas succeed, and transformation occurs, when educational leaders engage with their communities. This engagement can appear in many ways. But the key is that all efforts are centered on creating and improving opportunities for learning. In the case of the UAE, this is no different. The national efforts engage external communities in many ways. Sometimes the efforts materialize in the form of cross functional teams committed to specific work across Ministries. These teams work together to establish programmatic conditions that improve learning or facilitate access to learning. At other times, it shows up in the form of collaboration with local authorities that share responsibility for the development and advancement of its citizenry. And sometimes it happens through partnerships with private entities that support learning environments and promote educational endeavors on the ground.

#### **Examples of Supporting Practice**

Engaging external environments that matter for learning is an area where the UAE excels. In my opinion, the common belief on the ground is that if experts or groups of experts are engaged, then the learning curve is flattened, and achievements are expedited. This has proven to be a great concept which has allowed the UAE to engage others in examining and benchmarking student performance. The first example of the commitment to engaging external environments in education to support its reform efforts is the UAE's partnership with the Organization of Economic Co-operation and Development (OECD). This partnership paved the way for in data-driven decision making and continuous improvement processes through participation in the Program for International Student Assessment (PISA), Trends in International Math's and Sciences (TIMMS), and Progress in International Reading Literacy Study (PIRLS) that help by creating benchmarks. And while the initial results were of these assessments were less than cheery, it provided a way to engage the local authorities, community members, and others, in active discussion about what needed to be done to improve the national efforts. It was after high-level national engagement meetings, the UAE set the ambitious goals of having average TIMSS scores among the top 15 countries and PISA scores among the top 20 countries in the world (United Arabic Emirates Vision 2021, 2010).

With respect to partnerships, the UAE is home to the UNESCO's Regional Center for Educational Planning (RCEP). Its primary goals are improving capacities on the ground, developing strategic partnerships, providing technical support, and encouraging knowledge sharing. The RCEP accomplishes its primary goals for the UAE through training programs, development support, education planning, and policy forums that reinforce the national efforts. The partnership extends across the UAE and into the Arab world with policy dialogues, and best-practice educational seminars designed to engage educational stakeholders through collaborative capacity building efforts.

And finally, I believe the nation's leaders contribute to **engaging external environments by** gatherings to meet with community members, listening to their ideas and sharing information related to specific topics. A concept which occurs through the "majlis", which is the Arabic term for council (Merriam-Webster, 2021). This is inherent to the UAE culture. I believe that through these "majlis" discussion, the good leaders of the UAE keep the pulse of the nation and seed good ideas that encourage innovation and engage the action of others in their quest for excellence. Through these "majlis" discussions, leaders anticipate challenges, address issues, and navigate carefully to obtain successful outcomes, all the while, building key relationships that support learning. In my opinion, **this is crucial if the educational landscape it to be positively impacted.** The forward, collaborative thinking has helped the UAE excel as a nation over such a short period of time. Remember, it only been 50 years since the UAE became a country and in this time it has established itself as a small but mighty nation. According to Wikipedia, it currently boasts an impressive GDP of approximately AED 1.5 trillion. (Wikipedia contributors, 2021), ranking it the 29th country in the world. It is through these educational efforts that the UAE's leaders will fulfill their quest and continue to transform the nation.

#### The Leadership for Learning, Action Area # 3 ... Acting Strategically and Sharing Leadership

#### Defined.

Strategic efforts abound within the UAE. With the Ministry of Education and the many local educational authorities situated on the ground, leadership pathways often cross each other, creating a bit of confusion. Therefore, the key to this action area within the LFLF is to seek pathways that offer multiple areas of improvement, so that overlapping efforts reinforce each other without devaluing one another or causing confusion. Acting strategically is about spending time identifying and creating opportunities that have the greatest influence on the reform efforts (Copeland & Knapp, 2006). Through strategic efforts, the UAE maximizes those opportunities. Opportunities that include strategic deployment of resources and the mobilization efforts along multiple streams to force action. It also makes the ground fertile with opportunities for leadership that make engaging others within the local environment crucial. It is through these efforts the UAE is promoting the growth and development of the next generation of leaders. Therefore, acting strategically includes establishing and maintaining a shared leadership approach (Carson, 2007).

#### **Examples of Supporting Practice**

Aligning efforts to support the strategic deployment would include the MOE efforts to ensure that the local reforms are all in concert with the high-level strategy. For example, if we revisit the UAE's purpose for the development of the professional standards, we see a primary case of strategic reform in effect.

#### **Purpose of the Standards**

The introduction of professional standards across the education sector provided an occasion to reconsider what's minimally required for teachers and leaders while placing emphasis on the nation's priorities. It allowed for uniformity of thinking through a fit-for-purpose framework and restated the importance of establishing minimal competencies and spelled out parameters that could serve as determination of quality within UAE schools.

The UAE standards (Supreme National Standards Committee, 2015):

- identify preferred professional proficiency needed to ensure student outcomes.
- reinforce other systems such as licensing, appraisal, performance management, continuous professional development, education/training, recruitment, selection, and overall progression.
- improve the practice of staff by encouraging self-assessment and deeper reflection on the work; and
- underscore the significance of cultural tradition and national values.

Ultimately, the national effort proved to be a good initiative when viewed through the Leadership for Learning Framework action areas. These efforts, which are ongoing to this day, continue to reinforce the importance of working strategically to yield systemic improvements. As part of the UAE's national efforts policies, procedures, and regulations are embedded within each initiative, and as such, directly aligned with the strategic direction of the UAE (Government of Abu Dhabi, 2007; United Arabic Emirates Vision 2021, 2010).

Another example of acting strategically was evidenced in the launching of the bespoke Emirates Standardized Test (EmSAT), to measure achievement in Arabic, English, Math and Science over the course of the students k-12 journey. The final EmSAT measures also serve as a pre-requisite for college admission and/or university scholarship funds. (Ministry of Education, 2021a, 2021b). The enactment of the EmSAT model helped close the loop on the educational services provided at the k-12 level by allowing the MOE to measure the success of its efforts over the long haul and set a baseline for college entrance.

The final example of supporting the UAE's ability to operate strategically is demonstrated with their comprehensive reform efforts associated with the development of the "Emirati School", which was conceived to align the national vision with practical programmatic efforts. This alignment was not a theoretic exercise existing on paper but rather an operational initiative. It created a comprehensive approach to schooling, uniquely representing the goals of the UAE. The concept paved way for the development of the "Emirati Graduate School Profile" (MOE Education System 2020–2021), through which the UAE was able to set graduate expectations that would empower students to develop key knowledge and skills. The latter were coupled with expected personality traits that would help to define the future of the UAE and enhance the nations interests. The initiative involved changes to curricula, assessments, and

instructional methods, thereby paving the way for systemic improvements. The "Emirati School" emphasized the creation of smart learning environments, quality assurance monitoring through targeted inspections, provided additional extra-curricular supports designed to make sure conditions were set for active change. That active change would see restructuring of schools, student enrollments aligned to international best-practice, and the reconceptualization, retraining and strategic deployment of its workforce.

The impetus for this and other changes stemmed from the merger of MOE (K-12 with the Ministry of Higher Education). This merger aligned the national efforts under one MOE (k-20) and allowed them to focus on a comprehensive strategy designed to offer educational quality that could meet future demands (Ministry of Education, 2021a, 2021b). In the end, it created an entirely new school structure from the ground up to ensure all the children in the UAE maximize their potential.

It was then, **like** many other nations, the UAE realized that investments in early education offered the highest possible return. Consequently, they continued acting strategically by launching a plethora of early education initiatives like the Early Childhood Authority who coordinates all early childhood related activities. Or programs such as the kindergarten framework, which was aligned to the UAE's vision and created to support existing staff as they internalized the new early childhood expectations and transitioned through the MOEs modernization of effective practices reform.

## The Leadership for Learning, Action Area #4 ... Creating Coherence

#### Defined.

The term coherence speaks to "systemic logical connection, or the integration of elements, relationships, or values" (Merriam-Webster, 2021). In education, the terms refer to creating that systemic, logical connection between reform areas (Fullan, 2001, 2002; Fullan & Quinn, 2015). With the latter, coherence is a difficult concept to establish because it requires policy-leadership-practice to be in concert with one another. Many times, visionary direction is out of sync with the implementation efforts, or the resources are insufficient to reach the intended outcome. Or even still, the curriculum isn't challenging enough to drive the expected increases in achievement. In the absence of alignment or coherence within strategy, or a misalignment between the components, the system falters.

In the School Instructional Program Coherence: Benefits and Challenges research report (Newman et al., 2001), the authors emphasize that coherence is achieved by establishing a positive correlation between student learning, professional learning, and system learning. According to these authors, systems learning, involves facilitating conditions for teachers to thrive. Everyone and everything must maintain

clarity of vision and focus on the initial goal...which in the UAE remains...a First-Rate Education (Vision 2021, 2010). This alignment in activities, resources, and priorities is what keeps the reform agenda in motion. However, according to Fullan's Leading in a Culture of Change (2001), "the problem to establishing coherence in many organizations is not the absence of innovation but the presence of too many disconnected, episodic, piecemeal projects with superficial implementation" (p. 159). If we look at the UAE's educational landscape, this challenge is often present. While there are a great many initiatives on the ground, they aren't always interconnected, creating a gap which causes the reform efforts to struggle. Our goal in this section is to use the LFLF to share some examples of where coherence is present and is leading to systemic improvement, in the hopes that these efforts can be replicated to create the transformational changes (Scheele, 2021) the UAE seeks in the quest for its "knowledge-based economy".

#### **Examples of Supporting Practice**

According to the LFLF (Copeland & Knapp, 2006), coherence occurs when reform efforts are coordinated across the action area. As such, the UAE is working along specific pathways to disturb education paradigms (Pascale, 2000) and influence the three learning agendas (student learning, professional learning, and systems learning).

In the search of coherent efforts on the higher education front, the UAE strategy offers increased opportunities to launch post-graduate diplomas (Government of Abu Dhabi, 2018), which create for its citizenry (young and old) value-added experiences designed to deliver against the UAE vision 2030 (Government of Abu Dhabi, 2008) and "create a first-rate education system" (Vision 2021, 2010). It attempts to accomplish its efforts through aligned programs, partnerships, and deliverables that augment the national agenda. More specifically it seeks to:

- Expand professional experiences of existing graduates in other fields by offering them a career pathway to education. (Ministry of Education, 2017)
- Introduce on-campus work experience programs designed to increase employability skills with the education sector. (Ministry of Education, 2017)
- Promote job shadowing opportunities (Marlina et al., 2019) at partner schools (public, private and charter schools)
- Increase the "investments in knowledge" by creating a pathway for continued education. (Ministry of Education, 2017)
- Invest in people through the development of new post-graduate programs designed to increase knowledge and skills of UAE Nationals. (Ghadan 21 Report, 2018)
- Create incentives within the education sector through employment opportunities and partnerships

The National Strategy for Higher Education 2030 (2017) emphasizes the need:

To empower a nation of young adults with technical and practical skills to deliver innovative solutions. To do so, the national strategy focuses on graduating specialized and professional UAE citizens that will become the cornerstone of the knowledge-based economy and to take part in research, entrepreneurship and labor market.

Seeking to galvanize the NSHE 2030 vision and a plethora of other strategic initiatives, the UAE is embarking down the road of providing training to holders of Science, Technology, Engineering, Math (STEM) and Arabic Language degrees. So rather than create a competing environment within the sector it seeks to complement instructional efforts through pedagogy training to existing degree holders with the aim of changing teaching dynamics by promoting increased teaching and learning through STEM subject matter experts.

For the most part, programs within the UAE are for initial degrees in specific fields of concentration. This sometimes creates as over-supply of graduates within the market who are intended for others sector. Through collaborative efforts of several authorities, the UAE seeks to satisfy a need in the market, empower it citizens, and support its reform efforts by introducing additional qualifications that are skills-based. Creating post-graduate diplomas increase the viability and marketability of existing 1st degree holders by providing opportunities for content experts to become skilled teaching experts. This focus exemplifies yet another measure of the UAE's cohesive effort to boost the education sector with highly qualified and skilled professionals in STEM subjects. The efforts broaden individual employment prospects while better equipping graduates for the future (Vision 2021, 2010). This positioning, according to National Strategy for Higher Education (2017), offers additional qualifications for UAE nationals (Government of Abu Dhabi, 2019) seeking to obtain another credential or a pathway into the sector of education.

The Future Skills 2030 Report (Abu Dhabi Sustainability Week, 2019) and the World Economic Forum (2020) cited the need for "educational skills buildup (academic and vocational skills) in key areas such as artificial intelligence (AI), robotics, automation, advanced manufacturing, virtual reality (VR), augmented reality (AR), big data and data analysis." As a forward-thinking response to the data in hand, national leaders created some of the following programs:

- UAE National Program for Artificial Intelligence which was the umbrella for a host of other program such as (Government of the United Arabic Emirates, 2021):
  - UAE Artificial Intelligence Camp designed for the nation's youth;
  - Artificial Intelligence Training Program targeting government employees;
  - UAE Internship Program; and
  - Undergraduate Degree Program in Artificial Intelligence
- Mohammed Bin Rashid Smart Learning program designed to provide a "smart learning" environment for teachers, students and parents through the collaborative efforts of the UAE's Ministry of Education, Telecommunications Regulatory Authority, and the UAE Prime Minister's Office (Smart Learning Program, 2013);
- Mohammed Bin Zayed University for Artificial Intelligence which seeks to promote knowledge creation and research in Artificial Intelligence to drive

growth in the nation's economy (Mohammed Bin Zayed University for Artificial Intelligence, 2019); and

• Hamdan bin Mohammed Smart Learning University online programs like the Cloud Campus, the blended Ph.D. program in Educational Leadership, and the School of Education (Hamdan Bin Mohammed Smart University, 2021)

With "systemic logical connections" (Merriam-Webster, 2021) supporting existing efforts or emboldening national leaders to create additional pathways, the UAE is well positioned to achieve where others have not. By ensuring that their policy-leadership-practice are in concert with one another, we can anticipate many great things over the course of the long haul. But it must remain focused.

#### The Leadership for Learning, Action Area #5 ... Professional Communities that Value Learning

#### Defined.

Building professional communities that value learning according to the literature can be accomplished through Professional Learning communities (PLC). These PLCs according to Dufour (2004) galvanize the collective community to work together to create conditions where children learn. These conditions set out to establish common ways of engaging to ensure the latter. The PLC defines what the students will learn, how it will be measured, what targeted and timely support interventions will be provided and ultimately how results will be monitored. The focus of the PLC is activating professionals that are driven to improve the quality of education for the individual or groups of individuals they are charged with educating. According to Dufour, the framework for PLC includes the terminology such as essential outcomes, common assessment, differentiated instruction, and data analysis. Copeland and Knapp (2006) support these same conditions in the LFLF while placing emphasis on strong relationships that are stable. The LFLF also reiterates the issue of creating structures that allow for the PLCS to gather. The work of these authors speaks to the value of leadership, modeling, setting norms and maintaining a focus on learning.

#### **Examples of Supporting Practice**

Under the "building professional communities that value learning" action area, emphasis is placed on establishing common language and developing strong instructional practices. While these two areas are key to actioning the reform agendas at the school-site, our efforts were limited to system-wide processes. At the HQ level, the UAE has introduced curriculum reforms that help refocus learning on key learning outcomes. The MOE has attempted to fuel PLCs by providing data to support those conversations. They aligned learning outcomes to key assessments throughout the k-12 continuum (Ministry of Education, 2021a, 2021b) to provide common ground for PLCs to thrive. Through their revised assessment strategy they placed tremendous emphasis on differentiated instruction (Copeland & Knapp, 2006; DuFour, 2004; Tomlinson, 1999) as a way of providing timely support for students. Both the Emirate and National levels have reinforced these efforts by striving to provide an education where all learners are able to reach full potential, which is the core of the differentiated instruction.

The assessment scheme also reinforces these efforts by providing for common assessments from year-to-year as well as providing baseline testing, progress monitoring efforts throughout the year and helping PLC keep the conversation going.

#### **Conclusion and Recommendations**

The rationale to conduct our investigation into what's happening in the UAE to improve the quality of education through the lens of the Leadership for Learning Framework five action area (Copeland & Knapp, 2006) proved to be a good fit. The action areas:

- Establishing a focus on learning,
- Engaging internal networks that matter for learning,
- Acting strategically and sharing leadership,
- Creating coherence, and
- Building professional communities that value learning.

As we indicated, actions areas help to clarify the UAEs efforts, and solidify the UAE is on the right trajectory toward transforming the educational landscape. To this end, the LFLF provided a birds-eye view of the reforms. It's this authors opinion that if these reforms are sustained and augmented with strong school level leader-ship and high-quality instructional efforts, they offer promise toward the massive transition to the knowledge-based economy. The key over the course of this transformation is consistent implementation of the vision, consistent leadership, and opportunities for educators to see what effective practice looks like along with practical implementation strategies that facilitate operations.

Also, since **building professional learning communities** are essential, the UAE must bolster the national efforts by emphasizing reflection on learning, as part of the instructional process through effective professional development opportunities (Darling-Hammond, 2017) that include:

- lesson studies (Lewis, 2002)
- increased action learning as part of the job embedded professional development; and

• implementation of high-quality instructional monitoring practices such instructional rounds, peer observations, and feedback /reflection training to maximize professional development.

Another opportunity for **acting strategically** to ensure the vision becomes a reality is for the UAE to create and share a common framework that can guide others toward the goal of transforming the way education occurs while remaining in line with the targeted mission. Like the way the Leadership for Learning Framework was used, a national framework could be used to form the basis of all program development. This will ensure that key elements of the national agenda are never omitted, forgotten, or lost in time. Thereby, future-proofing any reform efforts through the development of a consistent way forward. While, innovation is always sought, the focus of this recommendation is to ensure that developers have a starting point that is strategically connected. In so doing, leaders ensure that everyone is on and remains on the same page.

As an example, we introduce Kolb's experiential learning cycle (1984, 2004) which places emphasis on connecting practitioners a specific framework. In this case, Kolb speaks to the four stages of learning during any programmatic experience.

- Exposure to **concrete learning experience** through on-the-job training and employment experience.
- Engagement with **reflective observation** experiences to examine and discuss good practice.
- Interaction with **abstract conceptualization** to develop new methods and theories.
- Participation in **active experimentation** to test theories and methods in real world context.

Each learning stage within the model provides a link to the next stage thereby creating a learning pathway (an experiential learning cycle) that produces a quality learning experience. By providing program developers with a learning theory as a starting point, the UAE "maintains a focus on learning" and ensures that learners are always connected to learning throughout their cognitive journey. Thus, creating coherence along the continuum. If we continue with this same example, the activation of Kolb's learning model provides for

- uniformity of message;
- clarity through a visual model; and
- a framework that ensures basic elements are reiterated.

The theoretic framework aids those seeking to answer the call-to-action by connecting them to needs of the country. The development of interconnected programmatic offerings maximizes **strategic priorities as support by the Lead-ership for Learning Framework** (Copeland & Knapp, 2006).

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### Chapter 23 Reconceptualizing Teacher Education in Qatar: A Complex Dynamic Systems Approach



#### Hessa Al-Thani, Youmen Chaaban, and Xiangyun Du

Abstract Dominant conceptions of teacher learning and the consequential and desired enactment of such learning into practice tend to be linear, reductionist, and process-product driven. However, recent interest in complexity theories has challenged these conceptions and highlighted the dynamic, multiplicitous, and evershifting nature of teacher learning. As teacher education constitutes the initial contexts where future cohorts of teachers are prepared for teaching, their successes and failures are placed under scrutiny whenever teacher quality is debated among education stakeholders. Therefore, this chapter takes a conceptual stance toward initial teacher education, specifically pertaining to the preparation of graduating teachers from the largest teacher education program in Qatar. The chapter begins with contextualizing teacher education in Qatar within its historical, sociocultural, economic, and political roots. We then highlight the challenges and complexities emerging from the interactions among these systems and their influence on graduating teachers' learning and practice. All the while, we argue that linear perspectives fall short of acknowledging the complexity of teacher learning and fail to provide convincing evidence for the preparedness of our graduating teachers and the variability of their practice. Framed by complexity theories and grounded in empirical research conducted in Qatar, we offer a reconceptualization of teacher education as embedded within complex dynamic systems.

**Keywords** Qatar · Complexity perspective · Self-organization · Feedback loop · Disequilibrium · Teacher education

#### Introduction

The largest teacher education program in Qatar is housed in the College of Education at Qatar University. Interestingly, the college constituted the very departure point of the university in the early 1970s. Consecutively, the college began branching out into

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multiple divisions and programs. It currently constitutes four departments; namely the departments of educational sciences, art education, physical education, and special education, each consisting of multiple programs across the undergraduate and postgraduate levels, in addition to three centers, namely the Educational Research Center, the Early Childhood Center, and the National Center for Educational Development.

A historical glance at the college reveals the significant role it has played on the Qatari educational scene. Notably, the college prides itself for contributing to the development and graduation of the entire cohort of senior leaders who became prominent figures in the country's education sector generally, and Qatar University specifically, that is during the years spanning 1977–1995. For the longest period, the college has been the only teacher preparation program in the country until recently. As more and more institutions gained a foot hold in Qatar's educational landscape, the college inevitably began facing mounting challenges and competition, specifically in its ability to recruit and retain graduates of the highest caliber. As recruitment standards lowered, so did the college's ability to attract candidates interested in entering a profession with a declining social status and reputation. Internally, other colleges were opening and high school graduates, specifically males, became more interested in pursuing careers which guaranteed higher income, status, and career development opportunities. The challenges facing the college continued to escalate until the bachelor program was suspended during the years spanning 2005-2010, while its diploma program was kept running.

With its reopening in 2011, the college began accepting student teachers into its bachelor programs with a differing vision and mission, and graduates were thus able to begin their careers without pursuing graduate studies. A corollary decision made at the college was to change the language of instruction from English to Arabic in response to similar changes happening in the public school sector. While language policy contributed to an exponential increase in applicants to the college, this interest in pursuing an education degree was not met with attracting high performing school graduates. A potential consequence for such decisions was the decline in teaching credentials and competencies, and consequently the quality of teachers entrusted to educate the youth in the country. Quite unfortunately, a cycle of impoverishing schools with highly qualified teachers began; as poor teacher preparation has consistently been accused of jeopardizing the quality of graduating teachers which in effect further influences the quality of teaching and student learning, and the cycle continues.

Complicating the potential of the college to attract high performing school graduates is the persistent social status and reputation of the profession. Unlike many countries in the world, teaching in Qatar does not enjoy a prestigious status, and teachers are not well recognized as agents of change. In fact, the prevalent attitude toward teaching is that it is a profession pursued only when other options, such as engineering and medicine, cannot be secured. Despite overarching societal changes which saw the proliferation of job opportunities and open workplaces for both males and females, the pipelines sourcing candidates for teaching positions did not fulfill demands, and thus, the supply for teachers continues to be nourished from neighboring Arab countries, for better or for worse. On a positive note, the expenditure on education continues to be among the highest worldwide, as political leaders believe in the power of a quality education in influencing how young nationals will view the world and their contributions to it. Change continues to be the hallmark of the education sector, whether in instigating another language policy mandate for all college graduates to maintain English language proficiency or ensuring that student teachers meet the requirements of international quality insurance standards. In general, these and similar changes incite both prospect and concern for the college and the quality of its graduates, as they may be seen in light of other changes occurring along other frontlines; political, economic, and social. It may be safe to say that political, economic, and social upward mobility are the main driving forces behind Qatari society these days. For instance, recent political developments have created a movement toward self-sufficiency and renewed national pride. The country is rapidly moving toward enhancing local trust in its power to provide a strong and secure market and atmosphere for both Qatari nationals and expatriates.

To stay abreast with the changes occurring at multiple levels, there is a need for the college to adopt an "institutional mentality," one which accommodates the needs of its diverse social makeup, and acclimates to the fact that Qatar is becoming an international hub harboring multinationals from all walks of life. There is a national obligation to develop new curricula which reflect these recent developments and address their impact on the Qatari population. It is an opportune time for the college to open up to this new international paradigm while safeguarding an authentic identity and background. As a complex undertaking, the question becomes whether and how the college can keep up with change and take advantage of the affordances it enjoys.

Drawing on scholarship that employs sociocultural and sociomaterial perspectives, we argue for reconceptualizing teacher education as nested within complex dynamic systems which include the particular historical, sociocultural, economic, and political systems in Qatar. The next section provides a backdrop for understanding what it means to conceptualize teacher education from a linear perspective, followed by a contrastive perspective which views teacher education through a complexity lens.

# **Conceptualizing Teacher Education Outcomes: A Linear Perspective**

The difficulty of transferring pedagogical learning from initial teacher education into classroom practices and the tendency of graduating teachers to enact transmission-based pedagogical methods even when prepared differently have been well-documented (Ell et al., 2017; Liston et al., 2008; Strom & Viesca, 2020). While some researchers have highlighted the complexity of the relationship between teacher learning and practice, dominant conceptions remain largely linear, reductionist, and process–product driven (Opfer & Pedder, 2011). Ontologically speaking, linear perspectives are derived from rational humanism rooted in a dualistic (either/or) logic, which conceives reality in binaries or separations, underscores one universal reality and way of being/thinking, and reduces complex phenomenon into constituencies and one-to-one correspondences. Such linear perspectives have shaped the way teachers are prepared and evaluated, while assuming that graduating teachers have full agency to enact what they have learned with high fidelity once inside the classroom (Strom & Viesca, 2020).

Much of the initial literature on teacher learning, specifically in initial teacher education, has reflected this rationalist approach in which student teachers learn knowledge about teaching while taking courses at university or participating in practicum activities, and then they enact their learning as classroom practices after graduation (Darling-Hammond, 2006). A range of theories and models have been proposed in the teacher learning literature, some accounting for contextual influences and other factors, yet the majority reflecting the static and passive influence of human/non-human elements in the classroom, the complete autonomy of teachers over their practices, and the simple one-to-one correspondence between teacher learning and practice (Strom & Viesca, 2020).

Another set of research findings have been successful in identifying leverage points for the improvement of teacher education, including significant findings pertaining to entry pathways and recruitment, teachers' knowledge and beliefs, and university-school partnerships to name just a few (Darling-Hammond, 2006). Yet such studies have only yielded information about the parts of teacher education, rather than wholes, and thus fail to solve the intricate issues of teacher preparation, such as the reason behind student teachers' inability to enact the transformative practices aligned with the goals of their programs (Crochan-Smith et al., 2014). In other words, such research considers teacher education as a complicated system, one which consists of multiple parts and interactions, yet nonetheless, the sum of its parts is equal to the whole. Such systems tend to operate in a linear fashion, are usually quite stable, and produce outcomes which have a high degree of predictability. This means that the parts can be examined in isolation and then pieced together unproblematically allowing predictions to be made about the nature of the whole with high certainty.

Even when teacher education is dissected in this way for research purposes, disappointing outcomes pertaining to teacher learning often emerge. Ell et al. (2017) document multiple studies in which teachers who were taught particular practices do not necessarily transfer their learning into classrooms and schools, while others may find themselves hindered by contextual cultures and structures which stand in the way of such transfer. These outcomes constitute a major challenge for initial teacher education.

#### **Complex Dynamic Systems in Initial Teacher Education**

We join several researchers in their call for a "complex turn" in teacher education (Clarke & Collins, 2007; Crochan-Smith et al., 2014; Morrison, 2008; Strom & Viesca, 2020) and emphasize the interconnectedness and interdependence between what student teachers learn within a multiplicity of contexts and what they eventually transfer inside their classrooms. These holistic approaches attempt to deal with the simultaneity of influences on teacher learning, including the individual development of the student teacher embedded within multiple, complex and multilayered contexts, including the outer layers of the historical, sociocultural, economic, and political contexts. Thus, a nonlinear and holistic view of initial teacher education implies that "it is a learning system that is growing and changing at all levels" (Ell et al., 2017, p. 329).

Following Strom and Viesca (2020), we further emphasize that both learning and practice are "intertwined processes that co-constitute, or *co-make*, each other" (p. 210). This perspective thus requires an explicit analysis of the initial conditions, system interactions, and underlying causal structures which bare powerful influences on teacher learning. Rather than parts, complexity theories support the understanding of teacher education as a whole, which is greater than the sum of its parts and cannot be taken apart without losing key aspects of how teacher preparation is provided and how it functions.

Accordingly, we consider teacher education as a complex adaptive system which exhibits a networked rather than hierarchical structure (Clarke & Collins, 2007) and which simultaneously contains smaller systems (e.g., teacher educators, student teachers, cooperating teachers, etc.) embedded in larger systems (e.g., the college, university and education system, as well as the historical, sociocultural, economic and political systems). Because of its nested nature, the boundaries between its various systems overlap and interact in unpredictable ways (Morrison, 2008). Thus, disequilibrium becomes an inherent part of complex systems yet is considered a desirable state for the system which will consequently change, develop, learn, and evolve (Crochan-Smith et al., 2014). Thus, complex systems are not static; they are dynamic and constantly strive to resolve issues and adapt to the conditions that surround them (Ell et al., 2017; Morrison, 2008). Because complex systems can never be fully controlled or fully known, this means that an element of indeterminacy must be accepted at the outset (Clarke & Collins, 2007).

The notion of self-organization is a key characteristic of complex adaptive systems, involving actors and elements comprising each system to interact with each other, as well as with actors and elements from all other systems, thus leading to new forms of order or behaviors known as emergent phenomena. Teacher education, as a complex system, has many variables, and its major outcomes, manifested in teacher learning and practice are rarely predictable. Such outcomes result from the interactions and nonlinear relationships of component parts and from intricate feedback loops in the system. Though unpredictable, these emergent phenomena are not random nor inexplicable but highly patterned (Clarke & Collins, 2007).

Further, depending on the feedback received, emergence may be encouraged or oppressed, such that positive feedback encourages adaptation and change, while negative feedback serves a regulatory or corrective function (Strom & Viesca, 2020).

The notion of complex adaptive systems allows us to conceptualize teacher education as nested within multiple, overlapping complex systems. One of these systems is the student teacher system, which encompasses beliefs, background experiences, prior knowledge, personal qualities, and needs. At a broader level is the teacher education program, which includes student teachers themselves, but also teacher educators, other student teachers, and the interactions among them, as well as available resources, physical spaces, and other contextual elements. At the same level, the classroom embedded in school systems where student teachers engage in the practicum experience are complex systems, which may or may not provide the opportunity for student teachers to transform their learning into practice. Within these systems, teacher learning is influenced by the university supervisor, cooperating teachers, students and their needs, school cultures and structures, and teaching assignments. Finally, these systems are embedded within the wider educational systems and policy environments, as well as multiple, intersecting historical, sociocultural, economic, and political systems as discussed at the beginning of this chapter.

These interdependent and complex systems shift and change over time, as their actors and elements interact to influence the emergence of teacher learning. This may help explain why two systems with only minor differences in their initial conditions exhibit variations in their outcomes. Thus, two student teachers who attend the same teacher education program and share other similarities in demographics will nonetheless engender different experiences and manifest different shifts in perceptions, beliefs, and intentions for future practice. Viewed in this light, it becomes evident that teacher education cannot be well understood using process–product or knowledge-transmission logic which fail to account for the reality that teacher learning is deeply embedded in dynamic, multiplicitous, and ever-shifting systems (Crochan-Smith et al., 2014). These key notions from complexity theories hold promise in attempting to understand the variance in teacher education outcomes.

# **Teacher Education Studies in Qatar from a Complexity Perspective**

In describing complex dynamic systems above, we came across certain notions and understandings which provided a common language for examining such systems, including disequilibrium, self-organization, feedback loops and consequently emerging phenomena. Such complexity perspectives offer possibilities for re-examining how teacher education works in ways that promote or constrain emergent phenomena, particularly teacher learning, as well as promote understandings of the conditions and influences which may support the emergence of transformative practices as advocated by the teacher education programs offered at the College of Education at Qatar University. We take this opportunity to think differently, perhaps more critically, about studies we have been involved in, and which have not been previously examined using complexity perspectives. As we shift our thinking about teacher education as a complex system, some of our long-held notions about teacher learning have been challenged.

Guided by such perspectives, we became cognizant and accepting of the unintended consequences and variability in outcomes among the student teachers enrolled in the teacher education programs. We also became interested in developing explanations which could account for such variance without being reductionist. Inspired by complexity theories, we answer the following question in relation to our previous studies on student teacher learning: What interactions (self-organization), states of disequilibrium, feedback loops and contextual elements were associated with the emergence (or non-emergence) of teacher learning? To answer this question, we offer a complexity-informed blueprint which we believe can be used to guide a reconceptualization of teacher education. We do not offer these ideas as a new model or approach to teacher learning, but only to highlight the way complexity theories can provide different perspectives and understandings from those currently prevalent in teacher education.

The studies we refer to in the sections below have previously explored coursework and practicum experiences, though we give more emphasis to the later as we reapproach the findings by zooming in on the interactions occurring at the boundaries of multiple systems; those pertaining to the teacher education and school systems. For all the studies revisited in this chapter, we shift our focus toward the learning opportunities (or lack of) emerging from the interactions and relationships within multiple systems.

#### Self-organization: Interactions Within and Among Systems

In one mixed-method study, the researchers investigated the instructional strategies adopted by teacher educators at the college from the student teachers' perspectives. They also explored student teachers' preferred instructional strategies (see Du et al., 2020). Surprisingly, a passive engagement mode was most prevalent according to the participating student teachers, who also surprisingly preferred passive instructional methods in the form of listening to lectures and receiving materials from the instructor. Specifically, they reported very few experiences with the active, constructive and interactive modes, which have been identified as the three levels of "active learning" (Chi, 2009; Chi & Wylie, 2014), and their reports of negative experiences with group work activities may have further consolidated such beliefs. In situations like these, disequilibrium is absent. The interactions within the student teacher system, as well as those between the student teachers and teacher educators, exhibit no dissonance and consequently adopting active learning is unlikely to occur.

However, in the same study, student teachers pointed to the presence of a dilemma toward active learning. Despite their positive attitudes toward active learning methods

and beliefs in their theoretical usefulness and necessity, they also expressed insecurity, reluctance, and stress when confronted with such methods. Disequilibrium is thus apparent and learning opportunities arise. The issue is described as one of dissonance between theory and practice; a dilemma debated in education research for decades yet unfortunately remains relevant. These interactions occurred within the student teacher as a system, but also crossed over to the school system where student teachers anticipated a conservative context; one that is resistant to change and would prohibit their ability to lead change. The recommendation offered at the time was to create a unified vision for good teaching that extends university coursework into the field of teaching in a manner that is both coherent and pragmatic. The researchers claimed that in the presence of a unified vision, student teachers may not experience the dilemma of whether or not to enact active learning strategies in their own future classrooms.

With this backdrop, two researchers embarked on an endeavor with another study which aimed to experiment with a practicum experience that had a unified vision; one that had an explicit focus on definitions of teacher leadership, opportunities for practicing teacher leadership, and strategies for overcoming challenges to teacher leadership (Chaaban & Sawalhi, 2020). In this study, they explored the way student teachers enacted agency to facilitate the development of a teacher leadership stance throughout the practicum experience. The findings revealed a multiplicity of simultaneous interactions which occurred within and across systems and which resulted in relatively unique learning outcomes for each of the seven participating student teachers.

For instance, as actors and elements within the school system, particularly pertaining to their enactment of agency, some student teachers experienced expansive perceptions of teaching and leading as "two sides of a coin." Their positive experiences with teaching and leading were transformed into enhanced motivation and self-confidence, development of an inquiry orientation, and a commitment to the responsibilities of the profession. These learning outcomes emerged as a result of an amalgam of interacting actors and elements within multiple systems incorporating key players, including the cooperating teacher, university supervisor, and student teacher. Student teachers specifically valued the interactions with the cooperating teachers, who were considered key actors in providing several learning opportunities, such as experimenting with pedagogical decisions, supporting their reflections, and prompting them to be critical of their performance. Despite negative feedback loops from the school system, allowing sufficient freedom for interactions among and between the different actors was sufficient to help them gain confidence to step out of their classrooms, as teacher leaders tend to do, and become active participants within the wider teaching community. Accordingly, generative, fruitful, and productive outcomes emerged.

Despite these positive learning outcomes, these findings could not be generalized to all the student teachers participating in the same practicum experience and in the same school context. For one student teacher, the interactions within her individual system, manifested in concerns about her personal strengths and readiness to teach also influenced learning outcomes and perceptions toward leadership. For another student teacher, the negative feedback loops emerging from the school system repressed the emergence of changed perceptions and teacher leadership practices. Such variations in learning outcomes confirm the complexity inherent in teacher learning and the influence of self-organization processes in determining the emergence of intended outcomes. They thus rightfully concluded at the time that the success of the practicum in creating a prime context for the enactment of agency and development of a teacher leadership stance was contingent upon the availability of several individual and contextual factors. Rephrased in complexity terminology, student teachers' ability to enact agency during the practicum experience is contingent upon several actors and elements which interact within and across the boundaries of multiple systems, namely the individual student teacher and coordinating teacher systems, and the contextual classroom and school systems.

#### Disequilibrium: A Welcomed State of Creative Tension

Student teachers' negative perceptions and experiences with teamwork also prompted several researchers to investigate this matter further. They were aware of the notion that it takes more time than expected to develop collaborative learning skills in a social cultural context where lectures remain the prevailing method of teaching and learning. They thus took on the recommendation which emphasize the need for more research in order to facilitate collaborative learning among student teachers. This time, the context was a STEAM based course in which student teachers were required to work collaboratively to solve ill-structured and authentic problems within a teamwork setting (see Chaaban, Qadhi & Du, 2021a, 2021b). Within this context, they were particularly interested in the factors which influenced student teachers' ability to enact learner agency. Using complexity terminology, they sought to create a context in which disequilibrium could be restored through student teachers' enactment of learner agency within a teamwork setting. Having student teachers engaged in teamwork constituted the scaffold for restoring equilibrium and consequently achieving the learning outcomes of the course. Whether student teachers perceived this context to support their enactment of agency was an area which prompted the mixed-method study.

The study resulted in a curation of four factors influencing learner agency in a teamwork setting, namely teamwork self-efficacy, interest and motivation, sociocultural support, and team support. These were the elements within several systems which could cause disequilibrium for student teachers enacting agency in a teamwork setting. The one factor that had the highest propensity for disequilibrium was interest and motivation to work in teams. Not surprisingly, student teachers were divided in their interest in and motivation for working in teams. These elements in the individual system may interact through negative feedback loops with actors (e.g., other members on the team) and elements (e.g., the assigned task) and result in disequilibrium. Rather than considering this state undesirable, student teachers can be prompted to focus on another source of agency, namely teamwork self-efficacy which they rated favorably and which could restore the aforementioned disequilibrium.

Another controversial component of learner agency practiced in a teamwork setting was the factor of team support. Surprisingly, some team members were found to be inhibiting other member's ability to enact agency that would lead to successful outcomes for the team. We thus concluded that the results shed further light on the complexity of the social structure of the team, as well as the importance of social interactions among team members in providing the opportunity to practice agency. Though such results may be interpreted negatively as student teachers' inability to collaborate efficiently in teamwork settings, however, viewed from complexity perspectives, these tensions among team members may well be anticipated and welcomed as a state of creative tension which, with the proper awareness, support and guidance, can lead to restoring disequilibrium across the boundaries of multiple student teacher systems, as collaborative and problem-solving skills emerge. Hence, the interplay of all four factors may be considered in the further design of learning opportunities which require student teachers to employ agency in solving ill-structured problems in a teamwork setting.

Finally, the researchers regarded learner agency as a complex dynamic construct affected by multiple factors. This notion was further confirmed in another study on the multidimensionality of student teachers' agency. In this case, disequilibrium was caused by the transition to emergency online learning during the outbreak of the COVID-19 pandemic (see Chaaban, Oadhi & Du, 2021a, 2021b). Again, the researchers emphasized student agency as a core component for coping with uncertainty and change and engaging purposefully within complex and evolving environments. As a mixed-method study, they were able to show how student teachers' agency was manifested in the interplay of three constructs, namely motivation and self-efficacy beliefs, self-regulated strategies, and sociocultural factors. The emerging themes from the analysis of qualitative data revealed the cognitive dissonance experienced by the student teachers during a time of intense disequilibrium, but also how they were prompted to take charge of their learning and remain positive amid the disruption to their normal education. The presence of such disequilibrium was reason enough for several student teachers to take advantage of the experience, while excluding negativity. These benefits translated into improved learning opportunities, shifts in study habits and enhanced technological skills. Despite the challenges arising from the abrupt transition to online learning, student teachers were able to experience firsthand what a world constantly in flux truly means. This may have been an opportune time to help them understand that constant change will always be an element of their future careers and to equip them with the skills and capacities which will allow them to adapt and resolve disequilibrium.

# Feedback Loops: Supporting or Suppressing Learning Opportunities

Intricate feedback loops in complex systems play a critical role in supporting or suppressing the effects of disequilibrium on the system and consequently the emergence of desired learning and change. This process was depicted clearly in a study of student teachers' changing perceptions of their roles during the practicum experience (Chaaban et al., 2019). In this study, the researchers were interested in exploring the factors in the sociocultural context which may have influenced the changes in student teachers' beliefs about their roles. In citing extant literature, they came across the debate concerning the malleability or stability of teachers' beliefs. They presented both perspectives objectively and documented evidence emerging from different research findings. The student teachers' pre- and post-interviews as well as their weekly reflection papers alluded to change. Yet, the nature of change was unexpected.

At the beginning of the practicum experience, student teachers' anticipated roles were generally attune with the goals of their teacher preparation program. Student teachers expected to play various roles such as facilitator, nurturer, and participant. Throughout the practicum, their actual roles were described as instructor, authority, and provider. The findings may seem contradictory at first; however, upon careful reflection, they were able to attribute the change to mostly negative feedback loops within the multiple interacting systems particular to the practicum context, including the cooperating teachers, the students, and the classroom.

In particular, the student teachers willingly approved the superiority of their cooperating teachers and accepted an apprenticeship role. Accordingly, they also readily accepted the feedback from their cooperating teachers without critical consideration. They adopted the methods of their cooperating teachers, regardless of whether they conflicted with their own personal beliefs. These cooperating teachers thus played a powerful role in influencing the students teachers' beliefs about their roles, as feedback loops were particularly strong given the fact that they also evaluated the student teachers' performance. Having little autonomy over content and pedagogy, the students teachers were quick to adopt their cooperating teachers' values and practices throughout the duration of the practicum. Furthermore, feedback loops originated from the students in the classroom. The student teachers encountered low proficiency levels in English among their students, who did not communicate in English during classroom lessons. They also struggled with classroom management and challenging student behavior. These sources of negative feedback loops prompted student teachers to enact roles contrary to those they had anticipated at the beginning of the practicum.

Accordingly, student teachers' beliefs about their roles changed throughout the practicum, excluding the claim that student teachers' beliefs are static. However, negative feedback loops manifested within multiple systems prompted undesirable change. If change is accepted as necessarily acquiring an intricate belief system aligned with the teachings of university courses and translated into actual practices during the practicum, then the student teachers in this study should have failed the

course. Yet, the complexity inherent in the practicum experience in comparison to any other learning experience in teacher education requires a careful consideration to the feedback loops operating within the multiple interacting systems, and which are simultaneously influencing student teachers as systems themselves. In order to facilitate student teachers' belief change toward the goals of the teacher preparation program as well as those they had initially anticipated for themselves, the researchers presented several recommendations, such as the necessity of establishing closer partnerships between universities and schools, the exposure to multiple social learning activities, a careful consideration for student teachers' procedural concerns, and the attention to the subtle power relationships that play out during the practicum experience.

As disappointing as these results may sound, the researchers were not disheartened to pursue further studies which also targeted the practicum experience. It has been their conviction with the multiple studies conducted on the practicum experience that student teachers experience heightened levels of disequilibrium. Specifically because the practicum is delivered at the end of the four year teacher education program, student teachers become apprehensive about transferring what they have learned into practice. Often they experience unpredicted events which occur at a time when they are intensely focused on planning lessons and managing student behavior. However, many student teachers have been able to embrace such disequilibrium and consider the practicum a time of experimentation, innovation, and risk-taking, while others are not as successful. This point is made clear in another study on the practicum experience (see Chaaban & Sawalhi, 2019). Perhaps most prominently, the findings in this study alluded to the necessity of a supportive framework which offers positive feedback loops from a range of participants.

In this study, the researchers aimed to infuse the practicum experience with a teacher leadership perspective. It was the first attempt to make significant changes to the way the practicum unfolded, offering the opportunity for student teachers to engage in teacher leadership practices and reflections. As complexity perspectives will have us thinking, what a student teacher learns in one context will necessarily be different from what another student teacher learns from that same context. Thus, in reporting the findings, the researchers emphasized the necessity of a supportive framework which offered feedback loops on student teachers' initiation of teacher leadership practices and which encouraged student teachers' development of a leadership identity. The supportive framework included an amalgam of supervisor support, cooperating teacher feedback, student teacher agency, among other elements. Not surprisingly, the supportive framework included different actors and elements for different student teachers, yet equally important for all was the availability of positive feedback loops. Notwithstanding the simplicity of reducing complex phenomena into pathways for leadership development, they reflected upon the depiction of teacher leadership development and concluded that a complex rendering of identity development requires attention to multiple enabling factors, both personal and contextual.

# **Reconceptualizing Teacher Education in the Wake** of Extensive Revisions

As we embark on revising our teacher preparation programs, we consider ways in which teacher education can act as significant scaffolds to support student teachers in their development as informed, creative, and innovative members of highly complex adaptive systems. Therefore, revising our programs cannot be a matter of changing a specific set of practices, or a reconfiguration of certain courses, or substituting a particular assessment protocol. Instead, what we need is a reconceptualization of teacher education from a complex dynamic systems approach, which takes multiple overlapping and interrelating systems and contexts into careful consideration, including those at the historical, sociocultural, economic, and political levels. Of course such reconceptualization cannot remain within the confinements of this chapter nor within our own individualized thinking and reflection. A common language needs to become institutionalized among all stakeholders. To achieve this end, we present three main considerations: *recontextualizing teacher education, addressing the problem of practice* and *attending to the issue of fragmentation*.

*Recontextualizing teacher education*: In the introductory paragraphs, we addressed the sociocultural, historical, economic, and political contexts which have influenced teacher education in Qatar. We have also revealed the specificities of practice as related to student teachers' preferences and experiences in their coursework and fieldwork. What this information tells us is that there is a need to recontextualize teacher education within local cultures and contexts. The process of recruiting and retaining teachers, both males and females, should be instigated from a careful examination of the characteristics of the candidates applying to the college and the characteristics of the graduates who become the nation's future teachers. We cannot rely solely on the international literature in understanding the factors which work in both unison and dissonance to influence the success and failures of our teacher education system. As revealed, there are particularities in the individual systems of our student teachers embedded within multiple other systems which render comparisons futile.

It may be important to note here that in between recruitment and graduation, the college of education adopts the requirements of international accreditation for its programs. On face value, accreditation alters the administrative structure of the college, yet more profoundly, it influences the value system of the institution (see Romanowski, 2021). Conforming to the requirements of accreditation bodies is a value laden and complex endeavor. Accreditation is yet another complex system which becomes nested within existing dynamic systems and thus adds another layer of complexity to the purposes and functions of teacher education. While it is beyond the scope of this chapter to go into an in-depth analysis of this issue. We do, nonetheless, insist on remaining diligent and conscientious toward the local specificities of the Qatari context in any revision to the teacher preparation program. In this regard, we call for further research within the local context which addresses the suitability of imported best practices and standards for teacher education and leads

to theory building about the initial conditions, system interactions, and underlying causal structures that can support student teacher learning.

Addressing the problem of practice: Largely, the practicum has been placed under strict scrutiny and has received a significant amount of attention in teacher education. It may be safe to say that the practicum constitutes a vibrant, learning system in its own right. Common practices have separated colleges and schools as unrelated entities. Yet, as evidenced by the studies discussed above, the practicum consistently exposes the inconsistencies and tensions in teacher education. It is the place where teacher education is put to the test, and failure can carry negative consequences beyond individual student teachers. It is the place where student teachers negotiate their teacher and teacher leader identities, where they transfer their learning into practice, and where they acquire new knowledge and skills. The intricacies inherent in the practicum make it a fertile place for multiple learning opportunities to emerge organically. Student teachers, cooperating teachers, and university supervisors, among other systems and subsystems, have an opportune time to profit from collaborative, research-rich, and ongoing shared work. In revising the teacher preparation programs, we need to reconceptualize the college and schools as networked subsystems situated in the larger systems of policy and practice. One possibility is to rethink the divisions which have been set up between learning and practice settings and which artificially separate theory and practice in teacher education. Student teachers should be able to interact in complex, relational work required to enact practices which align with their teacher education goals. They should also have the opportunity to practice and reflect in iterative and interdependent cycles embedded in supportive frameworks consisting necessarily of positive feedback loops. For example, ongoing communication should become well-established among members of the college and school settings, to share ideas and shape subsequent planning.

Finally, rather than situating the practicum at the end of the teacher preparation program, coursework and fieldwork should be considered interrelated constituencies of teacher education, adapting and evolving in close alignment throughout the duration of the program. While it may be logistically difficult to integrate a field component in all coursework, concerted efforts can be made to begin with a few courses which necessitate microteaching and experiential learning opportunities. All the while, we should plan to gradually introduce student teachers to the school culture from as early as possible in their programs, such that they may find relevance in their assignments as authentic scaffolds to their learning. Through student teachers' early interactions with real teachers in real classrooms, they are able to enact their learning from coursework in increments, gradually increasing their participation as their confidence grows. Accordingly, their identities as teachers and/or teacher leaders may emerge more consistently and hence override their need to think and act as students competing for the highest grades in isolated courses.

Attending to the issue of fragmentation: One of the main revisions intended for our teacher preparation programs has been attending to the issue of fragmentation. We acknowledge, in this regard, that the curricula of the multitude of courses currently on offer have become disconnected, resembling a collection of courses with little

coherence. We also recognize the pitfalls in some courses where knowledge is transmitted by the instructor to the students, where classrooms as learning spaces are set up as rows, and where large class sizes perpetuate hierarchical relationships and interactions. In order to restore coherence, we need to attend to unifying conflicting messages and connecting faculty in productive discussions that cut across coursework and fieldwork. Once we can reach a critical level of diversity in perspectives and ongoing interactions, the complex system of teacher education will eventually self-organize into a coherent body of interconnected activity which serves a common purpose and allows for the possibility of emergence.

The findings discussed above further emphasize the need for a clear vision for graduating student teachers. If a culture of cooperation is to reign over the current competitive grading culture, then we need mechanisms for communication and assessment of learning grounded in the power of positive feedback loops, rather than the power of judgment. Collectively, instructors can work to embrace social constructivist views of learning which place their students and themselves as co-constructors of learning; actively engaged in building and creating knowledge through participation and interaction in a relational approach to pedagogy. We are currently piloting such notions in some courses by adopting project-based learning accompanied by the five themes of excellence adopted by the university at large (student-centered, experiential, entrepreneurial, digitally enriched, and research-informed learning), and with an emphasis on the constructive alignment model (Biggs & Tang, 2011). We anticipate the nature of emergence which may result from the interactions and interconnections among the multiple systems involved in this endeavor.

#### Conclusion

Within the teacher education literature, ideas from complexity theories have become more frequent and useful in informing our understanding of teacher learning as a nonlinear, emergent, and long-term capacity building process. For one, complexity theories allow for examining how systems function, interact, learn, and change. If we are to acknowledge the complex nature of teacher learning and the consequential transformation of such learning into classroom practice, it is important to emphasize that teachers' engagement in a number of disconnected coursework based on knowledge-transmissive approaches, coupled with an end-of-program practicum experience, is unlikely to support transformative teacher learning. In this chapter, we offer a number of guiding principles which provide a complexity-informed blueprint which we believe can be used to guide a reconceptualization of teacher education. We do not offer these ideas as a new model or approach to teacher learning, but only to highlight the way complexity theories can provide different perspectives and understandings from those currently prevalent in teacher education, specifically those rooted within historical, sociocultural, economic, and political systems.

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# **Chapter 24 Challenges Facing Teacher Education in Yemen: Toward Better Quality**



Abdulghani Muthanna, Ahmed Alduais, and Bakil Ghundol

**Abstract** The recent conflict in Yemen along with the political, economic, and societal unrest for decades has led to the presence of many unique challenges facing both the pre-service and in-service teacher education in the nation. As a result of these challenges, teacher education suffers from poor quality education that not only affects the perceptions and practices of teachers and students but also the entire public simply because teachers and students form the heart of a nation's development in all aspects. In our chapter, we provide a critical review of teacher education from a global perspective with a focus on Yemen. And by highlighting the key challenges, our chapter concludes with insights toward better quality of teacher education in the nation.

**Keywords** Teacher education  $\cdot$  Education quality  $\cdot$  In-service teacher education  $\cdot$  Pre-service education  $\cdot$  Yemen

# Introduction

Internationally, teacher education is of two forms: pre-service teacher education and in-service teacher education. While the former relates to teacher education programs offered mostly within colleges/departments of education that prepare and qualify teacher students to serve at schools upon graduation, the latter refers to the training schoolteachers receive for further professional development. Teacher education is the backbone of development simply because it focuses on the development of learners' values, learning and teaching skills, and the development of their physical and mental health. However, the education policies and enactment differ from

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one nation to another. For example, in Norway the focus is on teaching core values such as human dignity, critical thinking, democracy and participation, etc. at primary and secondary education, the enactment regards "learning" as an action of "a social activity" among teachers and learners, encouraging learners to build up their self-confidence and freedom to express their views (Kunnskapsdepartementet, 2017). This reminds us of the application of the critical pedagogical approach which is significant in the development of learners' critical and creative thinking skills and inquiring minds (Severine & Muthanna, 2021). While such core values are considered of equal importance for teacher education in Yemen, the enactment is different for many factors, among which is the application of a teacher-centered teaching approach that regards learners simply as receptive listeners with no right to question their teachers or their knowledge.

In our chapter, we focus on teacher education in Yemen that has been suffering from conflict along with political, economic, and societal unrest for decades. The continuity of conflict in the nation has led to the presence of many unique challenges facing both pre-service and in-service teacher education programs in the nation. As a result of these challenges, teacher education suffers from poor quality education that not only affects the perceptions and practices of teachers and students but also the entire public simply because teachers and students form the heart of a nation's development in all aspects. In our chapter, we specifically report the present status of teacher education internationally and locally by highlighting the key challenges and offering insights toward the betterment of the quality of teacher education in Yemen. Below we briefly mention the background of the context and the two forms of teacher education in the nation.

#### Yemen: Contextual Background and Teacher Education

Yemen, located in the south of the Arabian Peninsula, has an important and distinct geostrategic location. It has control over the Bab al-Mandab Strait; has borders with the Red Sea, the Gulf of Aden, and the Arabian Sea; and is bordered by Saudi Arabia to the north and Oman to the east. The administrative division of Yemen contains 22 governorates with its capital at Sana'a. The population of Yemen, according to the estimates for the year 2021, is around 30,743,194 people (Worldometer, 2021).

In Yemen, teacher education includes both pre-service teacher education and inservice teacher education forms. Pre-service teacher education refers to the programs offered by the faculties of education. Such pre-service teacher education programs differ in quantity and quality from one university to another. The universities are under the administration of the Ministry of Higher Studies and Scientific Research. According to the National Information Center (2021) website, there are nine public universities and eighteen private universities. Because of the lack of statistical documents, it is challenging to estimate the number of the pre-service teacher education programs or even the pre-service teaching candidates in the nation. Similar is the case with in-service teacher education that is administered by the Ministry of Education that provides some short-term training to teachers who have been promoted to become inspectors. However, in 2011 there were 211,930 teachers for preschool education and basic education, 6891 teachers for high schools, 8429 university teachers (i.e., teaching assistants, lecturers, assistant professors, associate professors, and professors), and 2220 teaching staff in the private universities (National Information Centre, 2021). The short-term training might last for two months. Longer-term in-service courses leading to the earning of master's or doctoral qualification are also offered through the faculties of education in the nation. This training could also apply to the Ministry of Technical Education and Vocational Training.

## **Overview of Challenges Facing Pre-service Teacher Education: An International Perspective**

While scientific research on pre-service teacher education increases, challenges persist with a different degree from one context to another. In general, a major challenge relates to how to help pre-service teachers become reflective practitioners (Stahl et al., 2018) who can make sense of their learning experiences (Wessels, 2018). In Germany, it is recently identified that there is a need for pre-service teachers to develop pedagogical content knowledge (Scharfenberg & Bogner, 2021), that is also important in Africa since pre-service teachers need to develop technological pedagogical content knowledge and technological pedagogical content knowledge (Tiba & Condy, 2021). These requirements of developing different forms of knowledge are also highlighted in the British and American pre-service teacher education programs (e.g., Beisly & Lake, 2021; Lamb & King, 2021). Further, the implementation of additional language requirement for teaching purposes (i.e., using English to teaching other subjects) (e.g., Spain and Argentina contexts by Banegas & del Pozo Beamud, 2020), English in the Malaysian context (Macalister, 2017) is also another challenge.

The recruitment of pre-service teachers to work in remote areas that are usually undesired despite the provision of financial incentives (Evans & Acosta, 2021) poses a geographical (i.e., related to the context of teaching) or psychological challenge (i.e., related to the ability of the pre-service teacher and struggle to apply their new learned knowledge) in Brazil (e.g., Luguetti & Oliver, 2020). The integration of technology remains a necessity yet a challenge for contexts like Zanzibar (El Nabahany & Juma, 2019), albeit, this need for technology integration is still valid in the so-called developed nations (e.g., Australia and Belgium) (Best & MacGregor, 2017; Dorner & Kumar, 2016). Although both pre-service and in-service teachers find it difficult to well manage classes having children with disabilities, a study in Bahrain showed that pre-service teachers showed positive attitudes toward inclusion (AlMahdi & Bukamal, 2019). The readiness of these teachers to perform these attitudes in real classes remains questionable as attitudes are different from practice.

The challenges facing pre-service teacher education also differ from one program to another. For instance, the inclusion of content knowledge and laboratory is challenging for pre-service chemistry teacher education program in Turkey (Yalcin-Celik et al., 2017). Another challenge concerns the implementation of the teacher-centered approach that is being desired by experimental practitioners in the pre-service biology teacher education program (Scharfenberg & Bogner, 2016). Such program-specific challenges could also extend to learning specific skills that match the teaching requirements (Barrio & Combes, 2015).

Above all, the importance of developing "teacher identity" (Liu & Keating, 2021a, 2021b), "special tests" (e.g., fitness test for physical education teachers) (Liu & Keating, 2021a, 2021b), health awareness for physical education pre-service teachers (Alfrey et al., 2019; Fane et al., 2019), home-school collaboration for special education (Strassfeld, 2019), and sustainability competencies (i.e., learning material) (Brandt et al., 2021) to meet teaching standards and enable knowledge transfer among pre-service teachers, and their students are still challenging in many contexts.

#### **Challenges Facing Pre-service Teacher Education in Yemen**

Yemen currently goes through a unique dramatic situation at all aspects of life and development including the provision and practice of pre-service teacher education. This situation is a consequence of situating the country as armed-conflict state (Almunifi & Aleryani, 2021), with failure to providing appropriate infrastructure (Gamil & Abdul Rahman, 2020), poor implementation of technology and technical means (Alaghbari et al., 2019; Al-Mamary, 2020; Bin-Hady & Al-Tamimi, 2021), and more importantly the failure of the international community to assist in preventing this ongoing crisis, albeit so much financial assets provided to support education are not well used (Sherif, 2018). This miserable conflict over the control of the state (Clausen, 2018) has resulted in the decline of education which was previously manifesting corruption and conflict in leadership and administration of available economic sources yet spread of violent teacher behavior as means of punishment, be it verbal and physical abuse (Alyahri & Goodman, 2008), or emotional abuse (Ba-Saddik & Hattab, 2012, 2013).

Pre-service teacher education in Yemen shares more challenges than the rest of the world. These challenges range from providing theoretical knowledge, inconsistent course schedules and overcrowded classes (Ahmed & Al-Ward, 2020; Muthanna, 2011; Muthanna & Karaman, 2011), the use of traditional libraries and traditional resources and services (Muthanna & Sang, 2019), the presence of academic injustice practices (Muthanna, 2013), the poor interaction between administrators and academics, and poor teacher education programs (Muthanna & Karaman, 2014), to the migration of teacher educators to other countries (Muthanna, 2015; Muthanna & Sang, 2018a). The situation has further worsened to include challenges that are unique to the current political and humanitarian crisis in Yemen (Ghundol & Muthanna,

2020). In addition, emphasizing scientific research skills while preparing pre-service (Abddulsalam & Mabrook, 2020) is also a challenge for pre-service teacher education in the nation. These challenges make it harder to think of how to develop pre-service teacher education programs; rather, they hinder us of thinking of how to integrate technology with teaching skills (Aldowah et al., 2019) and force teacher educators to the use of the traditional teaching approach (Asaad, 2019).

Additionally, pre-service teacher education programs in Yemen suffers from the lack of teaching how to help teacher students develop "teaching philosophy", an action that is of high importance toward the development of self-reflections upon their teaching practices (Muthanna, 2022). This is also attributed to the lack of teaching philosophy development on the part of teacher educators. In the following section, we briefly mention the key factors for enhancing the quality of pre-service teacher education.

### Defining the Concept of "In-Service Teacher Education"

The concept of "in-service teacher education" can be interpreted differently; therefore, in this section, we attempt to provide a specific definition of the concept. The concept of *in-service teacher* refers to a teacher who has received a teaching certificate or has already been performing the teaching activity at schools. In-service teacher education refers to learning opportunities for teaching practitioners. It is considered as a significant means of promoting teacher development (Hustler, 2003; Saiti & Saitis, 2006; Uztosun, 2018). It is also a process that attracts in-field teachers toward further professional development (UNESCO, 2019a, 2019b) and encompasses all forms of teaching trainings given to on-job teachers (Osamwonyi, 2016). However, two main forms of in-service training are identified: traditional and non-traditional. While traditional in-service training includes short workshops and conferences, non-traditional in-service training can be such as peer observation, coaching, and mentoring for self-reflections on their own practices (Bayar & Kösterelioğlu, 2014).

Concerning the length of the in-service teacher training programs, they could be (a) short-term in-service courses (or workshops of 12–36 h) offered by universities or colleges of education, (b) mid-length in-service courses that last for 2–4 weeks, and (c) longer-term in-service courses leading to the earning of master or doctoral qualification (Ling, 2014). This last form is not considered in our chapter.

# **Overview of Challenges Facing In-Service Teacher Education: An International Perspective**

While the above-mentioned challenges facing pre-service teachers during their preservice education programs have a strong impact on these teachers upon graduation, the quality of teaching still demands the continuity of "teacher professional development". Further, the processes of transformation and adaptation from being pre-service teachers to in-service teachers are challenging (Moorhouse, 2021). As a result, the development of in-service teacher education is important-at least to respond to the needs of twenty-first-century learning-teaching skills (Binkley et al., 2012; Näykki et al., 2021). The focus of teacher professional development is on the improvement of the teaching quality (Mukeredzi, 2013) through a better employment of teachers' pedagogical, content knowledge in the field. However, several studies have shown that projects concerning the "teacher professional development" have failed to achieve their goals (e.g., Uztosun, 2018) or proved to be ineffective (Emery, 2012). For example, the in-service teacher training programs in Afghanistan suffer from the absence of a comprehensive policy and procedure, hiring less qualified and irrelevant profession trainers, and lack of a strategy for monitoring and evaluation (Noorajan, 2020). In Vietnam, in-service English language teachers lack methodology training to upgrade their teaching skills (Nguyen, 2012).

Challenges also exist in countries where in-service teacher education is considered of high quality (e.g., Finland), there are still challenges such as outdated methods, insecurity and negative feelings caused by new methods, passivity in group work, problems with pedagogical use of ICT, insufficient language skills of teachers, fragmentary in-service training, and less teacher cooperation (Huhtala & Vesalainen, 2017). Sustainability and the lack of involvement of the private sectors are some of the challenges facing the provision "teacher professional development" for teachers in the Sub-Saharan Africa (Junaid & Maka, 2015).

Measuring and tracking the impact of training of in-service teacher programs has been found to be challenging. Moreover, the routine and learners' learning are disrupted as teachers spend much time out of the classroom, leading to the loss of curriculum contact with learners (Day, 1997 as cited in Ling, 2014).

Because of the poor working conditions, the disinterest of learners and their families, teachers' traditional experiences, in-service teachers find it challenging to participate in "teacher professional development" programs (Eroglu & Donmus, 2021) in Turkey. In the same context, Uztosun (2018), by collecting data from 2476 in-service teachers, identified the presence of poor teaching, inappropriate timing and place, and limited number of in-service teacher education programs to be major challenges in the development of in-service teacher education in the nation. Further, because of the in-service teachers' beliefs in the ineffectiveness of "teacher professional development" programs in Turkey, the in-service teachers seemed not to be interested in participating in the trainings (Hos & Topal, 2013). This is, of course, a serious challenging toward the improvement of the teaching practices at schools. In Kuwait, the limited number of training centers, redundant curriculum content,

unequal supervisor-to-teacher ratios, lack of strategy to improve teachers' professional development, and the presence of unqualified trainers are all considered to be major challenges (Aljassar & Altammar, 2020). Similar is the case with the Kingdom of Saudi Arabia wherein a major challenge relates to certifying in-service teachers as practitioners. Many in-service teachers have not been trained to teach using the new standards for pedagogical practices. These individuals may struggle to pass the exam or refuse to seek for certification at all (OCED, 2020).

In South Africa, primary school teachers reported challenges concerning the insufficient contribution of department of education and school leadership toward the professional development of in-service teachers, limiting the in-service teachers' participation in "teacher professional development" trainings (Geldenhuys & Oosthuizen, 2015). Moreover, major challenges in the implementation of inclusive education in Eswatini-South Africa concern teachers' competency, material and financial resources, teachers' friendliness, and efficacy of administration (Adebayo & Ngwenya, 2015). Furthermore, high school teachers in South Africa face challenges as they attempt to implement the inclusive teaching approach. Challenges range from a lack of support, negative learners' attitudes, parental disagreements to examination-oriented systems (Makuya & Sedibe, 2021).

The COVID-19 crisis has also doubled the challenges for in-service teachers (Wang, 2021) who suffer from the lack of necessary online teaching experiences (Moorhouse et al., 2021). The crisis has further the challenge those in-service teachers living and working in complex environments (Zhang et al., 2020). Early career teachers in Germany face significant obstacles in adapting to online teaching, maintaining minimal contact with learners, and supporting learners' learning and growth (König et al., 2020).

#### **Challenges Facing In-Service Teacher Education in Yemen**

It apparently seems that the challenges facing pre-service teacher education in Yemen also apply to in-service teacher education in the nation. While Yemen was suffering from a shortage of qualified teachers resulting in the recruitment of teachers with high school qualifications, or borrowing teachers from Arab nations (Egypt and Sudan in particular) (Abdulmalik & Chapman, 1994), the problem currently relates to the unpolitical unrest and shortage of economic flow to run education smoothly. In detail, the interaction of the war impacts on education has led to the presence of displacement and discrimination among learners, the conflict of identities among children, the use of children as fighters for the future, the destruction of teacher's dignity, the normalization of negative behaviors and crimes, destruction of children's physical and mental health, education quality decline with children's dropout and low academic achievement, and the exploitation of education for financial benefits (Haider et al., under review). Further, schools in Yemen lack sufficient in-service teachers. For example, schools with 500 learners accommodate between 4 and 27

teachers (UNESCO, 2014). These in-service teachers are in a desperate need for further training and professional development to update their teaching skills.

Another major challenge facing in-service teachers is the distribution of teachers in areas other than their places wherein they live. For example, if a teacher is from Warraf district, those in education sector responsible for the employment would employ such teachers in Ba'dan district, making it hard for the teachers to visit their families or have peace of mind. The main reason for following such a policy is to force such teachers to start the processes of transferring their teaching positions to the areas wherein they live, and this would cost them much money. This money (bribery) is exploited by those in the education units/offices in each city. This illegal and unethical practice has prevailed in the nation for several years.

With externally financed projects, the Ministry of Education in 2003 provided in-service trainings to many teachers (World Bank, 2010) but the main problem lies behind the fact that only those who are trained might benefit from such training. Further, the selection of teachers for joining the training service depends on networking and sometimes teachers' loyalty to school leaders and administrators of education units/offices. The lack of communication between teachers inside the cities and other cities as well makes it impossible to benefit and share such experiences with other teachers in the nation.

The large proportion of unqualified in-service teachers coupled with a high rate of teacher absenteeism and low time-on-task is also a major challenge for the betterment of in-service teacher education in the nation. Further, there is a severe lack of qualified female teachers in rural schools. Additionally, we all understand that teacher salaries are important in the success of high-performing educational systems. In other words, when teacher salaries do not reflect the requisite levels of education, training, and responsibilities, or do not allow instructors to live comfortably without taking on second jobs, the teaching profession loses respect, which has a negative influence on recruitment, motivation, and retention (UNESCO, 2019a, 2019b, p. 64). In Yemen, teachers do not receive salaries for over 6 years. About 190,000 people, have been forced to find second sources of income to feed themselves and their families, including on-street work (Global Partnership for Education, 2020; Save the Children, 2021). Additionally, the spread of diseases among learners in rural areas, the shortage of electric power in cities or absence of power in rural areas, and the shortage of experimental and lab facilities at schools all form unique challenges facing in-service teacher education in Yemen (Mai et al., 2012). This has dramatically impacted the quality of in-service teacher education.

#### **Toward Better Teacher Education Quality**

Quality of pre-service teacher education depends on sharing knowledge for making a meaningful learning–teaching experience (Fletcher et al., 2020), developing learning materials focusing on pre-service teachers' beliefs about teaching (Adamakis & Dania, 2020). Quality of pre-service teacher education also associates with student

practitioners' observations and reflections on their teaching (e.g., Coulter et al., 2020). Additionally, the use of media for collaboration and communication (Saini & Abraham, 2019; Vlieghe et al., 2016), future classroom labs for pre-service teacher education preparation (Arstorp, 2018), and teaching in different contexts and different cultures (Power et al., 2017) are all significant in enhancing the quality of pre-service teacher education.

In the context of Yemen, there are unique challenges facing pre-service teacher education. These challenges departing from the current conflict and economic crisis have a severe impact on education in general. Providing only theoretical knowledge, having inconsistent course schedule and overcrowded classes, using traditional libraries with no access to international or national databases, exercising academic injustice practices, creating a poor interaction between administrators and academics and forcing teacher educators to leave the nation are all unique challenges impeding the improvement of pre-service teacher education in Yemen.

Internationally, providing appropriate and effective opportunities for teacher professional development remains a major challenge for in-service teacher education quality. In addition, Yemeni in-service teacher education suffers from the current ongoing conflict in the nation, insufficiency of qualified teachers, lack of inclusive trainings, unfair distribution of newly recruited teachers including the use of power by leaders of education units/offices in exploiting such teachers, spread of diseases and lack of experimental and lab facilities, absenteeism and low time-on-task, lack of qualified female teachers in rural schools and lack of salaries are all major challenges for the betterment of in-service teacher education in the nation. Addressing these issues demands a strong collaboration of those responsible for teacher education in the nation.

While developing both pre-service and in-service teacher education in the country depends on ending the conflict in the nation at first, policy makers, administrators and teachers need to keep thinking of how to impoverish techniques and ways to help not only themselves but also their community toward a better education quality that will in return lead to a better-quality life. The implementation of a high-level administrative support, collaborative understanding between administrators and teachers, providing teachers' salaries, improving the current state of libraries, and making decisions based on scientific research are all measures that can help improve the quality of teacher education in the nation.

In conclusion, while arguments differ about which form of teacher education is more important, we argue that both forms of teacher education are equally important. This is because each form of teacher education depends on the other one in the general outcome and quality. For example, when teacher students are well prepared in pre-service teacher education programs, and provided with effective in-service training, these teachers will positively influence their learners at schools. In return, these learners (high school graduates) would then join the pre-service teacher education programs with better futuristic visions, basic knowledge, critical thinking skills, making it further interesting and engaging for their teacher educators. Therefore, we suggest that policy-makers in both the Ministry of Higher Studies and Scientific Research and Ministry of Education need to collaborate in preparing implementable policies that focus on the development of teacher education in Yemen. Further, university administrators need to provide pre-service teacher education programs with all teaching–learning facilities that help in the better preparation of pre-service teachers. Meanwhile, teacher educators need to update the curricula with a focus on both theoretical and practical knowledge. While preparing qualified pre-service teachers is significant, working in the field posits that in-service teachers still need continuous professional development that still demands the collaboration of the abovementioned ministries. This is represented in the collaboration between education office/unit and universities in each city; the collaboration includes several workshops and seminars on training in-service teachers on several topics (e.g., development of learners' critical and creative thinking).

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# Chapter 25 A Call for Action: Building the Teacher Pipeline in Syria



Alia Hadid and Rabia Hos

**Abstract** Teaching is a multi-faceted profession that requires teachers to engage in many practices, possess certain qualifications and skills, participate in professional development, learn about new tools, techniques, and technology, and choose the best curricula and materials. To effectively partake in all these practices, teachers require much help and support from authorities, administration, and colleagues. This chapter highlights the challenges Syrian English as a foreign language teachers face in their journey as language teachers. The mission of Syrian EFL teachers has always been laborious but has become even more so after the onset of the Syrian conflict. Therefore, building the teacher pipeline in Syria requires serious efforts on the parts of all those involved to successfully educate teachers, help them become experts in instruction, and transform the learning environment.

Keywords Teacher education · Syria · Teaching methods · Conflict

# Introduction

Different jobs have various challenges and require multiple skills, qualifications, and credentials. There is no consensus on which job is the hardest; however, there is no denial that a teacher's job is one of the most demanding and stressful professions. This difficulty stems from the fact that teachers continuously communicate with new students, curriculum, and technology. They are also burdened with the task of preparing new generations to meet the world's countless demands. Considering the significance of teachers and their influence on new generations, it is essential to conduct research on how teachers are prepared for such an arduous task. The procedure is one that involves numerous steps and necessitates the availability of much support from the authorities. This chapter will highlight the state of teacher

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education in a turbulent region in the Middle East, one that has been experiencing a relentless war for over a decade, Syria.

Almost two decades ago, the Syrian Ministry of Education revamped teacher education and put Syrian universities in charge of overseeing it. This presented new rules such as obtaining Primary Teaching Certificate for teachers wishing to teach in elementary schools whereas those looking to teach higher levels need to obtain a graduate degree (Dayoub & Bashiruddin, 2012).

Beginning in 2005, more Schools of Education were founded, and this expansion led to an increase in the number of students majoring in Education (Al-Issa, 2020). Students in these schools go through training in their senior year, which is intended to introduce them to best methods and practices to help them prepare future students. The training consists of three stages. During the first stage, the teacher candidates observe teachers in action, and then in the second stage, they deliver two whole classes while being observed. Finally, they are placed in schools for a whole month and perform all the duties of the classroom teacher. Throughout the training, teacher candidates receive feedback to help them improve their performance (Al-Issa, 2020).

Even though these laws were founded to ensure better teacher education, we cannot ignore the reality that they entail many ramifications. To begin with, these rules intend to provide teachers with the qualifications that are deemed necessary for teaching and are thus important for students; however, one cannot ignore that these rules underestimate the need for professional and experienced educators at the elementary level. Catering to a young student population and teaching relatively easy curricula does not purport those teachers do not need to possess high qualifications. As a matter of fact, children are highly inquisitive creatures and are not easily satisfied. In this stage of learning, teachers educate children on how to become successful life-long learners and help introduce them to critical thinking skills and many other important qualities that enable them to take ownership of their learning and become more skilled learners. Thus, possession of a Primary Teaching Certificate does not satisfy the needs of this significant role. On a similar note, thinking that receiving a graduate degree is sufficient to become a high school teacher is really deceiving ourselves and belittling the minds of our future generations.

Unfortunately, there is a dearth of research in this area prior to 2012 but the situation worsened after the beginning of the conflict, which has made it more difficult to obtain data from the region (Al-Issa, 2020). In this chapter, we focus on teacher education in the English field as it combines the struggles of teachers who did not receive much training (if any) and who are also teaching in a language that is not their mother tongue, which necessitates that they receive more preparation and support. In fact, Al-Issa (2019) indicated that the Syrian Ministry of Education "appointed more than 10,000 full time teachers with zero pedagogical training or teacher education" (p. 431). To support these teachers, the Syrian Ministry of Education offered a one-year postgraduate certificate in education. The aim of this degree is to train "learners (who are unqualified educationally) in the skills needed for the teaching process and providing them with the educational, psychological, and philosophical foundations for teaching methods, education technologies, evaluation styles, and learning theories" (Syrian Virtual University, 2021). In a similar vein, the situation in higher education suffered after the onset of the conflict due to the brain drain whereby Syria lost more than a quarter of its academics (Shahla, 2018). To fill the gap, postgraduates with little or no experience were hired (Milton, 2019).

Teacher development can take place in multiple ways. We will look at each area and see how support is provided to teachers and if enough is being done in each area or if further efforts are required to bolster education, build the teacher pipeline, and enhance learning.

#### **Pre-service Training**

The first area that requires much attention is pre-service training as this constitutes a steppingstone toward teaching and being placed in the classroom. Getting a degree and graduating from college does not presume that a person is ready to start teaching. In fact, pre-service training is a crucial component that provides teachers with more knowledge and practice in methodology, classroom management, teaching, and assessment. Therefore, teacher effectiveness has been linked to the quality of such programs (Berry, Daughtrey, & Wieder, 2010). Some researchers (Ronfeldt, 2015; Ronfeldt & Reininger, 2012) focus on the quality of pre-service training and their length and perceive those as indicative of teachers' readiness and performance in the future classroom. Some of the benefits of pre-service training include increasing teachers' knowledge about learners, the subject matter, and how to best teach. It can also influence teachers' beliefs about teaching methods (Chan, 2016), which is essential in the Syrian context given the students' long exposure to traditional teaching approaches, which will be discussed later.

Despite the necessity of such training and its role in developing teacher competence, they are neglected in Syria and only sought by Bachelor in Education graduates (Dayoub & Bashiruddin, 2012). This means that those with lower credentials can start teaching without prior training, which is absurd given their dire need for this pre-service training to account for the absence of a college education.

Issa (2007) researched English language teachers at the University of Aleppo and reported that they were all selected to teach based on the grades they received while studying at the university and without requiring any training experience. Furthermore, many Syrian English as a foreign language (EFL) teachers mentioned that they did not receive pre-service training and as much as 90% of those who did found it unsuccessful (Al-Issa, 2020). Other Syrian teachers agreed that they did not receive any training but had to rely on the teacher's guide and their own experience in the classroom to help them navigate things (Alyasin, 2015). One Syrian teacher criticized the belief that being an English literature graduate is synonymous with the ability to teach English. She stressed the need for pre-service training as an important stage prior to being placed in the classroom, "… I mean as teachers we have to be subjected to practice before entering the school because after university we start teaching and we don't have any training. Learning English is different from teaching. We need

practice but we don't have this stage" (Alyasin, 2015, p. 212). Another teacher emphasized the need for training as it is a missing step "... and we lack this in Syria I mean not only for languages but for all subjects" (Alyasin, 2015, p. 212).

#### **In-service Training**

The importance of in-service training has been emphasized by many researchers (Donkor & Banki, 2017; Moon, 2004) as it stimulates teachers' effectiveness and improves their performance. Al-Issa (2020) researched the state of in-service training programs among Syrian EFL teachers during the conflict. Results showed that more than 70% of the teachers reported attending two or more in-service programs since the beginning of the conflict, which is promising. However, when examining which areas they received training in, they indicated that they underwent more training in traditional approaches such as teaching grammar and literacy. The areas they received least training in were using technology and teaching oral skills. This clearly reflects that in-service training programs are not preparing teachers to become less controlling and allow students to become more actively engaged.

When discussing the shortcomings of these in-service programs, teachers indicated various problems. Some of those included that the trainings did not provide them with enough coaching, did not address their needs, were too theoretical, and did not last long (Al-Issa, 2020). Such results indicate that teachers do not benefit from these in-service trainings to a high degree. In addition, teachers discussed some of their classroom practices and reported that they mostly focus on teaching grammar and resort to translation, a method of teaching that is impacted by the focus on final exams and test scores. Thus, they still follow the traditional approach despite their awareness of its impracticality due to various restrictions (Al-Issa, 2020).

Ms. May, a Syrian teacher who joined in-service training programs mentioned that the supervisors stressed to her the importance of having a student-centered classroom, but she still led a teacher-centered classroom. She was also conscious of the importance of rearranging seating, but she believed that this was too theoretical because:

it seems that trainer has never been in any of our classrooms lately nor does he seem to remember that the desks are designed to seat 3–4 students. If I was going to move the desks around in a circle so all students are facing each other, only 12 desks can be moved, what do I do with the rest and where will all the students sit? (Al-Issa, 2020, p. 206).

Ms. May's comment about the impracticality of trainers was further supported by Ms. April who believed that most of the EFL supervisors were not qualified enough to train (Al-Issa, 2020), which explains the reason behind the status-quo and the inability of many teachers to advance their teaching skills.

#### **Impact of Past Learning Experiences**

In the absence of teacher training, teacher candidates' only knowledge about teaching is their experience in the classroom with their past teachers. Such experiences are probably outdated given the advances in the field of teaching and the introduction of technology. However, some Syrian teachers find themselves affected by such obsolete practices for lack of knowledge about more recent methods. This was expressed by Khalid (Issa, 2011) who said, "Sometimes I tend to translate some texts like my past teachers (...); I find this more appealing to the students and more helpful for me and to the students at the same time" (p. 268). The students who are used to being spoon-fed find the traditional way more engaging, which is also "helpful" to Khalid who did not receive any prior training. Huda also believes it is effective in teaching grammar because that worked for her. She commented, "... it is the traditional way we were taught, I think it works with the students because we were taught in this way and yes it works. It's sometimes useful for students. It is not so bad when using the L1" (Alyasin, 2015, p. 205).

In contrast, Samar (Issa, 2011) dislikes the way she was taught and feels that "there should be difference and I can say it was a reaction" (p. 269). Samar's resentment of the traditional way of teaching made her react to it and led her to avoid it in her classroom. For example, she says, "they used mother tongue (...). I do not believe in the role of the mother tongue in classes" (p. 269). Samar's decision to not use the students' first language comes in response to the outdated traditional method. However, lack of knowledge about best practices deprives Samar from being informed about the benefits of translanguaging that allow bilinguals to make use of all their linguistic repertoire (Seals, 2021).

Teachers who were exposed to other approaches of teaching are more successful at implementing them. For example, Firas (Alyasin, 2015), a Syrian teacher, recognizes the importance of learning from various sources and attributes his knowledge about teaching to a few courses he attended at the British Council, which gave him some background about language learning and teaching, lesson planning, and classroom management.

#### **Teaching Methods**

Stories from the language classroom reveal that teaching follows the traditional grammar-translation method, which clearly indicates that teachers are still stuck in an era that dates to 2500 B.C. (Kelly, 1976). This method depends on translation and repetition and does not engage students in active learning. Instead, students are mostly passive, listening to the teacher, and asking questions when the teacher has finished explaining (Khoja & Mohapatra, 2017). This method has been denounced by many Syrian teachers (Al-Issa, 2020; Janoudi, 2011; Khoja & Mohapatra, 2017) because it teaches students to be dependent on their teachers and does not promote

life-long learning. Although some Syrian teachers wish to adopt a more progressive style of teaching, they may not know how to or may confuse control for good practice as in the case of Khalid (Issa, 2011) who admitted:

I like to have everything under control in both ESP and EGP, and sometimes I get afraid that (...), and this happens most of the time, some students don't know even which page we are working on and what exercise we are doing, and they get distracted quickly and they distract the others. (p. 149).

English language teachers at the University of Aleppo realize that they need to engage students in their own learning if they want to become active participants. However, this is not easy to accomplish given that Syrian students are accustomed to being at the receiving end and not actively engaging in classroom activities. Samar discusses this saying, "The huge number of students in classes forms another challenge that can cause the learning environment to be less in interactive, and consequently, changes the role of the teacher to a spoon-feeder taking the students away from the driver's seat" (Issa, 2011, p. 146).

A Syrian teacher from Janoudi's study (2011) discussed how she paid the price of voicing her opinion and how that experience has taught her a lesson. As a result, she tries to encourage her students to express their point of view even if that contradicts with her beliefs. She said:

From my bitter experience, I learned not to fail a student simply because s/he wrote something I don't agree with. First, I give myself a chance to read thoroughly about what s/he has written. If this student's writing is convincing and s/he can justify the idea they were arguing for/against, I will let them pass. (p. 337).

Although this teacher shows flexibility and is willing to accept perspectives different from hers, students are fearful and avoid writing their own ideas because this is what they have mostly been trained to do. A student exclaimed, "Yeah! The teacher writes a composition for students to study by heart" (Janoudi, 2011, p. 140). This eventually causes students to refrain from sharing and kills their creativity.

Issa (2011) discussed the disagreement among teachers regarding the best teaching methodologies. Some believe that a traditional approach is more appropriate depending on the students' needs, others adopt a communicative approach, and a third group are in favor of using a combination of both as in the case of Ghadir who said, "You cannot say you can be communicative one hundred percent with students who resist all the time, so I think you need to make a balance sometimes. So I am sometimes traditional; I follow the translation method sometimes" (p. 128). Ghadir is clearly indecisive and is experiencing resistance from students, which pushes her to employ both methodologies. Ghadir is an example of a hesitant teacher who is experimenting with different methodologies instead of being characterized by confidence and knowledge.

Teachers in Issa's (2011) study indicated their various roles and their beliefs about them. In fact, they all agreed that they need to correct students' errors. However, when examining their reasons for that, it is evident that they are not basing their reasons on sound research, nor do they seem confident about their answers. Khalid, for example, provided a purely personal choice while underestimating students' abilities saying,
"I should focus on students' accuracy; I am not interested so much in the fluency, and they [students] are not very good speakers" (p. 141). Khalid's comment implies that his approach is a matter of choice based on his preference and not on what students need. Similarly, Rima (Issa, 2011) presumes that grammar instruction is not a priority saying, "[In ESP], in my personal opinion (...), students have mistakes in grammar when they speak but they understand what they talk about (...). I think grammar unconsciously will be improved" (p. 142). Words like "personal opinion" and "think" show that Rima's teaching methodology is not based on theory and knowledge but rather on assumptions and speculations.

Lack in teachers' awareness about the various teaching methods and best practice can negatively impact teachers' choices and in turn adversely affect students. Janoudi (2011) discussed how teachers do not see the importance of conferencing with students, checking on their understanding and comprehension, and ensuring they are satisfied with the feedback they receive. Teachers believe that conferencing is redundant as the students are not likely to disagree with anything the teacher offers, which is consistent with the teacher-centered approach. This belief is common among Syrians who stressed that in the Syrian culture teachers are highly respected and not doubted because of their role as knowledge holders and as adults who should be obeyed (Alyasin, 2015). However, Syrian students do not necessarily agree with this as a Syrian postgraduate student expressed dissatisfaction, "My teachers in Syria favoured students who were excellent at grammar. They used to focus on isolated grammar drills and the memorisation of short paragraphs for exams... I thought this was the only way of learning English ... after my exams, I almost forgot everything that I learnt" (Hajar, 2017, p. 6).

Things deteriorated after the outbreak of the conflict in Syria. Many schools closed and others became shelters (UNICEF, 2016), which resulted in an increase in the number of students per classroom. Such growth negatively impacted teachers' performance since they largely depended on choral repetition (Al-Issa, 2019).

Rana, a Syrian teacher, is left wondering about the suitability of the communicative approach to the Syrian context. Given the many challenges teachers face and the mismatch between the textbook, the exam, and the supervisors' expectations, she remarked:

I don't think it's very good one but I think it can still work if we try to bridge the gap like with content, how teachers deal with it, the exams issue ... Yeah the teaching methodology is another like do we really need to apply the communicative approach? Why would we need it if we are EFL context? I mean do we need for instance other approaches? (Alyasin, 2015, p. 213).

Teachers need to adopt several group configurations as those allow students with better opportunities to engage and learn (Echevarria, Vogt, & Short, 2017). In the Syrian context, many teachers depend on whole group instruction, which rids students from increased participation and excludes shy and quiet ones. Although Rima (Issa, 2011) had a master's and had heard about group work "but it was a different situation like it was something idealised that we used to speak about small group and about needs analysis" (p. 271). Rima did not know how to make use of various group configurations and struggled to put theory into practice.

Teachers usually avoid assigning pair and group work because of the big number of students in addition to time and class arrangement constraints. One teacher expressed this difficulty:

I wanna be honest, I OFTEN not usually because it's about 50 % I use pair work especially if there is an exercise and this exercise is a bit difficult and I usually ask students to work in pairs ... But when it comes to group work, it's very very difficult. I seldom use group work. (Alyasin, 2015, p. 209).

## **Gaining Experience Through Teaching**

Being in the classroom with students is essential to teacher development. Teachers gain much knowledge through pre-service training, earning a degree, attending professional development but the most effective way to learn and grow as a teacher is through teaching and learning from one's mistakes and experiencing firsthand what works and is a success and what necessitates more consideration, learning, and inquiry. Knight et al. (2006) contested that teachers learn from their own experiences, which allows them to improve their practice. Considering that pre-service training is not a pre-requisite and is arbitrarily enforced in Syria places more emphasis on the importance of classroom teaching to build teacher development. This was confirmed by Ruba who said, "I learnt from the profession itself; through trial and error, and from my mistakes in the classroom. On many occasions, when learning about some teaching practices, I would try to put the theory into practice to find out what would/would not work in my classes" (Dayoub & Bashiruddin, 2012, pp. 600-601). However, for this to effectively help teachers, it should be accompanied by feedback from observers who can point out what the teachers did well and what they need to improve on, an idea that will be discussed in the next section.

#### Observations

In discussing observations, we refer to instances where teachers are observed and provided with feedback about their performance and where they are given opportunities to observe skilled teachers in practice, which can help them improve their teaching.

Observations are useful since teachers receive feedback about their performance, which allows them to view things through an objective lens and become conscious about practices that might otherwise go unnoticed. Research indicates the effectiveness of feedback as it enables teachers to reform their practice (Allen et al., 2011).

In the Syrian context, some supervisors are not fulfilling their tasks accurately, which can impact teachers' performance (Janoudi, 2011). In fact, some call for more supervision from the Ministry of Education. Infrequent visits and observations also

constitute a problem since teachers feel that supervisors are not familiar with what is happening and as a result are not to be trusted. This was expressed by Samer:

I was observed only once at school. And that's part of the problem. I remember one of the comments of my observer, it was to give reinforcement, like negative or positive feedback, to the students and if a student for example asks me about a grammatical rule, then I should give the students an activity about this grammatical rule rather than just say this rule simply ... I wasn't interested in knowing how to teach the book itself, but I was more interested in giving the students what I thought was good for them. (Alyasin, 2015, pp. 199-200)

Other teachers were left to experiment without any observation. For example, Firas invited the supervisors to his classroom, but none came. Some teachers pointed out how the supervisors created more challenges for the teachers as they were not there to support and help them learn about the communicative approach but rather focus on other things such as lesson organization (Alyasin, 2015).

Observations are also useful when novice teachers are allowed to watch expert teachers in action and learn about various good practices, classroom management, groupings, and activities. A teacher suggested using videos, "In any training session, maybe you will have 20 teachers, but if you have a lesson video-taped, all the teachers can watch and it should be a real class, not like typical [ideal] class with only 20 students, no. That's the best thing to do" (Alyasin, 2015, p. 214). This was further supported by Rana who felt that observations can fill in a gap "... for me I'd recommend that at least if you don't have training for these teachers, why don't invite them to classes of other teachers who have been in their posts for some time?" (Alyasin, 2015, p. 217).

#### **Support from Colleagues**

Teaching is a dynamic profession that requires continuous changes and revisions to meet the needs of diverse students who have different learning styles and preferences. Thus, teachers need to consult one another and discuss how they can cater to their students to arrive at the best solutions and provide the best assistance they can. Research confirms the effectiveness of collegial support in creating better educational environments (Muijs & Reynolds, 2001).

The Syrian crisis resulted in more bureaucracy and more focus on completing records rather than on paying attention to the needs of the teachers who are struggling to teach during such harsh times. This was noted by Adam who commented, "Administration has become more about signing papers and stamp-sealing documents than providing actual support to teachers" (p. 9).

Teachers encounter incidents when they feel at loss and need to discuss with others and hear a different perspective. This is a common situation among teachers and is more vital for novice teachers who feel the need to consult with more competent teachers before they can act. The absence of support causes teachers to feel they are in a swim or sink environment, which led Ruba (Dayoub & Bashiruddin, 2012) to self-doubt her actions and to feel annoyance as she had to make instinctive critical decisions.

Lack of support is clearly articulated by Firas who instead of being assisted felt pressure to finish the textbook at the expense of quality:

...sometimes I feel that I need to pay more time on this while the inspectors always pushing me to cover more and more. Whatever is the result, they just claim you need to cover, you need to finish this book, you need to do whatever it's possible even you could skip this or that ok, but they need to cover the whole book. This is another problem for me, pushing on me, pushing on me. Quality is nothing for them, they don't check quality at all. (Alyasin, 2015, p. 195).

#### **Textbooks and Teaching Resources**

To teach to a high standard and to effectively engage students, teachers require access to high quality materials. Young (2011) believed that textbooks do not only introduce students to content and knowledge but also help teach them various skills. In addition, Behnke (2018) stated that cutting-edge textbooks that tackle everyday teaching practices and highly establish cooperative learning can positively impact student achievement.

Books used in Syrian public schools are far from being modern. In fact, they do not allow for much engagement given their didactic nature (Khoja & Mohapatra, 2017). This problem is not only limited to compulsory education but includes the university where teachers feel restricted and are stuck with textbooks that do not address all skills (Issa, 2011). This was discussed by Khalid (Issa, 2011) who criticized the textbook because "There are no activities which concentrate on speaking, and I have to stick to the book and the course (...); I have to cover a number of pages in a specific time" (p. 277). Ms. May (Al-Issa, 2020) further indicated that the textbook includes dense reading passages that take long to cover, which leaves little time to work on other skills.

In addition to the various mentioned shortcomings, the textbooks also lack interesting topics that can engage the students and be relevant to their lives. To make matters worse, the textbooks intensify students' dependence on their EFL teachers as they include a big amount of information presented in an unfamiliar way. The new curriculum was borrowed from abroad and does not match the teachers and students' needs (Janoudi, 2011).

Shortly after the new English textbooks were introduced, Hasan and Raddatz (2008) conducted a study in which they focused on the quality of the English textbooks in Syria and Germany. They reported the need to revise the Syrian textbooks to overcome several limitations such as lack of focus on pronunciation and the need for more focus on the culture of the target language. Al-Issa (2020) criticized these textbooks as they do not address the needs of Syrian students and are written for a different population.

Despite the revamping of the English curriculum, everything remained the same. Teachers still taught using mostly the didactic method of teaching and classes did not have access to technology (Al-Issa, 2020). In a world of high technology where everything is moving at a fast pace, which has allowed for making great strides in various fields including education, it is disheartening to hear stories about the struggles of Syrian teachers in fulfilling their role as educators and guiding the new generations so much so "that the one who is supposed to be the facilitator of success is the cause of failure" (Al-Issa, 2020, pp. 7–8).

Akkad and Henderson (2021) and Al-Issa (2020) draw attention to several issues with the teaching resources. Most of the teachers indicated that they did not have access to audio-visual resources, technology, teaching aids, and supporting materials, a problem that heightened after the conflict. Not having audio-visual resources limits teachers' ability to expose students to listening. Abeer, a Syrian teacher, (Alyasin, 2015) felt that the curriculum is good but requires modification. She commented:

In my opinion [the curriculum] is good but needs some changes with deleting parts containing speaking or listening because we do not have the means for them and we do not examine the students in these two parts, or keeping them but dealing with them seriously by teaching them as important parts and having them in the final exam. (p. 195).

Teachers pointed out that the new curriculum is more engaging than the old one since it allows for opportunities to personalize learning and draws on fun activities such as singing. However, it is still lacking in certain aspects. For instance, one teacher perceives listening and speaking skills useless unless students will be tested on them (Alyasin, 2015). Although this in part is true, it is also alarming because it reveals how teachers follow what they are dictated regardless of its faultiness.

#### Autonomy

Possessing autonomy ensures teachers' success in meeting students' needs and in turn empowering students to practice autonomy since both are closely related (Aoki, 2002). Thavenius (1999) argued that autonomous teachers reflect on their work and make the necessary changes to help their students become autonomous learners.

Syrian teachers' lack of self-autonomy does not only translate into their inability to be creative and design tasks that are useful for their students. The damage goes beyond that since they are unable to guide their students and help them understand the importance of becoming autonomous learners. Learner autonomy has received much attention (Benson, 2010; Little, 2007) due to its importance since language learning is an ongoing process, which necessitates the need for learners to be in control and to take charge of their own learning. Unfortunately, this is missing in the Syrian context where teachers cannot teach what they lack, are powerless and cannot adapt or use their own materials (Issa, 2007). Khalid feels this lack of autonomy through the way he is directed to teach where "There is no communication activities whatsoever in the courses (...), maybe this is due to the large number of students. This is why the people in authority force such syllabuses on us; they prefer reading, grammar, and writing syllabuses" (Issa, 2011, p. 262).

A further issue is that teachers are teaching to the test, so given time restrictions, teachers find themselves incapable of equipping their students with the needed language skills to make them life-long learners. They are not training them to use the language effectively to communicate but rather as a means to an end, which in this case is passing the final exam (Isaa, 2011). Their role is restricted to the classroom, and they have no say in the final exam and how it is graded (Al-Issa, 2020).

#### **Professional Development**

Darling-Hammond, Hyder, and Gardner (2017) define professional development as "structured professional learning that results in changes in teacher practices and improvements in student learning outcomes" (p. v). They researched what effective professional development should look like and found that it should incorporate a list of elements, which when combined provide better outcomes. One of those elements is the need for continuous professional development that allows teachers time to process the information, apply it, and reflect on the outcomes to make changes in their teaching.

Teachers in Syria do not have many opportunities for professional development. In a study focusing on English language teacher professional development, Ruba, a Syrian English teacher, was restricted by lack of policies that validate the need for professional development and her school's uncooperative behavior (Dayoub & Bashiruddin, 2012). In the absence of support, she had to turn to her inner self for motivation.

The Syrian conflict exacerbated the situation and made it difficult for teachers to have access to professional development. However, teachers perceived that they need to have an active role in reforming the situation rather than wait for outside help. To this end, they felt they were responsible for seeking professional development by reaching out to other teachers and building cooperative communities of practice (Akkad & Henderson, 2021).

## Ethics of Care

Teacher preparedness does not only include having good knowledge of the subject matter and possessing effective teaching strategies. It goes beyond that to involve caring for the students and making sure that the teachers are doing what is in the students' best interest. According to Noddings (2002), ethics of care constitute an important part of teaching with a focus on responsibility, caring, and building healthy teacher-student relationships.

Many researchers understand the importance of adhering to ethics of care and advocate for its inclusion in teacher preparation programs (McNamee et al., 2007).

It is essential that teachers realize how teaching with care can lead to better results and to reform. This is explicitly demonstrated by Noddings (1986) who states:

It seems odd to talk of teacher education in terms of modeling, dialogue, practice, and confirmation instead of content, selection of students, exit tests, and credentials. All of these must be considered, of course, but their consideration in isolation from frameworks that describe the kind of communities we intend to build, the sort of people we want to produce, and the ways in which we will interact can only perpetuate the malaise now widely felt in education. (p. 505)

The malaise Noddings (1986) referred to is clearly evident in a story about a student's experiences learning English in Syria. During class, Lama's teacher asked her to read. Lama mispronounced the word "village," and it sounded like the word "raddish" in Arabic. Her teacher mocked her pronunciation and started laughing saying, "Ha ha ... green radish" (Hadid, 2020, p. 137). This incident had greatly affected Lama's confidence and caused her to stutter every time she read.

Teachers are sometimes oblivious to the importance of connecting with students and the need to check on students since many factors are at play in the learning process. This is reflected in some teachers' practices as in the case of those who loudly announce students' grades without fear of causing emotional damage (Janoudi, 2011).

Teachers need to carefully consider how they interact with students and be conscious about the language they use with them. Caring is even more important for language learners who do not have confidence using the target language. This requires much dedication and reflection on the part of teachers, which is the topic of our next section.

## **Reflective Practices**

As educators we know firsthand the importance of reflection and how it provides us with a true picture of what took place. Jane Fraser (1998) provided an excellent definition of reflection saying:

Reflection is the fulcrum of learning that lasts. Without it, I doubt if protégés could sustain the changes we attempt to implement. Reflection provides distance so a protégé can look back at what has happened. The word reflection brings a mirror to mind. When we hold up a mirror, we can examine images in detail. Without it, we could have a distorted view or no view at all. (p.55)

Sometimes as teachers we might not be aware of certain practices and fail to see our shortcomings and here comes the important role of reflection in depicting reality. The process of reflection allows one's brain to make sense of what happened by developing a deeper understanding of the events while engaging with one's own feelings. It is an important practice as it allows people to think about their actions and take measures to make changes to future ones with the intention of growth and betterment. Reflection received much attention from many scholars. Ballard (2006) discussed how reflection allows for the emergence of competent skills. In addition, Korthagen (2001) highlighted the need to introduce teacher candidates to reflection as that will avert them from implementing traditional teaching practices as they begin to have their own sense of the demands of teaching. Hadid (2020) discussed the effectiveness of reflections in avoiding bias and making assumptions about students' behavior. To Larrivee (2000), critical reflection has a pivotal role in the development of creative, professional, and empowered practitioners because without it, "they stay trapped in unexamined judgments, interpretations, assumptions, and expectations. Approaching teaching as a reflective practitioner involves fusing personal beliefs and values into a professional identity" (p. 293). Ruba (Dayoub & Bashiruddin, 2012) is a powerful embodiment of the effectiveness of critical reflection. In the absence of support from her school, reflection guided Ruba to improve her teaching skills and learn from past mistakes.

The importance of reflection was clearly articulated by a Syrian teacher who participated in Alyasin's (2015) research. Being interviewed provided him with an opportunity "... to see myself out of the box. Honestly, your questions made me rethink about teaching again... Am I on the right track? Am I teaching the way I have to?" (p. 230).

The impact of reflection can be so profound that it can help a teacher see the reality of what they are doing as a teacher felt that "... it made me revise my experience and my knowledge. I really thank you because you made me feel I am still a teacher, I am not a neglected person [laughing]" (Alyasin, 2015, p. 231).

#### **Other Contextual Factors**

Providing teachers with training enables them to become problem solvers and allows them to make informed decisions regarding different situations they may find themselves in. One such case relates to determining the best way to resolve the issue of having a big number of students in one classroom. This often inhibits teachers who may resort to limiting students' participation to control the class or who may refrain from assigning pair or group work as in the case of Rima who feels that "It is impossible here to do pair and group work because we do not have the freedom to focus on communication (...) because of the nature of classroom and big number of students" (Issa, 2011, p. 262).

When thinking about designing group work activities, teachers are limited by the classroom layout since those may hinder students' movement. In some cases, students are seated in rows and the desks are immovable, which makes it difficult to group students (Issa, 2011).

Lack of resources also negatively impacts teachers' role and their ability to teach according to their beliefs and in keeping with best practice. This was an issue that teachers faced at the University of Aleppo where they had access to blackboards but lacked access to smart boards, computers, and projectors. This comes to indicate the alarming situation of teachers, a situation that is even worsened by the fact that teachers cannot provide listening practice due to the unavailability of recorders and are restricted by the textbook because they do not have access to a photocopying facility (Issa, 2011).

Time limitation affects teachers' practices and how they run their classes. Teachers are expected to cover the textbook because this is where the exam questions come from. In a strive to help their students and ensure their success, teachers adhere to the textbook and refrain from bringing in extra materials (Issa, 2011).

At the college level, teachers declared that the teaching situation, which suffered from various limitations prior to the conflict, deteriorated after 2011 due to brain drain and shortage in power supply and modern facilities (Akkad & Henderson, 2021).

Teachers face all sorts of pressure from the rules imposed on them by the Ministry of Education, their administration, students, and parents, which impacts their motivation to teach (Janoudi, 2011). Their motivation is even more negatively impacted by their financial situation; teachers are irregularly paid, which forces them to work in more than one place (Akkad & Henderson, 2021). Matters are made worse by the teachers' fear for their life and safety as a teacher disclosed, "We had times we had fire around us here at university. We lived scary moments of death" (Akkad & Henderson, 2021, p. 10).

#### Conclusion

This paper focuses on teacher education in Syria and highlights the obstacles teachers face in pursuing training and how the little resources they have limit their capacity to serve their students and teach in the best way possible.

Going forward, there is an urgent need to bolster the teacher pipeline, which starts with providing high-quality training from the moment teachers start considering teaching as a profession until they are retired. Receiving a licensure and being credentialed does not mean that a teacher has mastered all the skills and has reached full maturation. In fact, the coronavirus pandemic has underscored our preparation as educators and has come to alert us to the need for much advancement in teaching online and opened our eyes to the importance of having qualified, knowledgeable, and proactive teachers who can rise to the challenge when the need arises.

Providing high-quality teacher training is essential as it allows teachers to effectively fulfill their duties and in turn impacts the education of an entire nation. In fact, this is an issue that can have multiple ramifications in a country that has been suffering from a war for more than a decade and that requires revival and re-establishment on all levels, which makes it imperative that teachers have the necessary tools to help them teach the new generation how to rebuild the country from the rubble it has become.

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# **Chapter 26 Not Another Singapore: Processes and Principles for Revising Pre-service Teaching Education in Bahrain**



## Lucy Bailey

**Abstract** This chapter reflects on the revision of the BEd program for teacher education that was undertaken by the Bahrain Teachers College (BTC) during the period 2020–1, using this as a springboard to critically examine the relationship between the teacher education curriculum and cultural context. The BTC College is the sole provider of initial teacher education in the Kingdom of Bahrain, and prior to this revision used a BEd program that had been established by Singapore's National Institute of Education at BTC's inception a decade earlier. The chapter charts a range of advantages and issues experienced by BTC as a result of this initial policy borrowing (Mohamed & Morris, 2021) for the origins of its undergraduate teacher training program. It critically examines alternative procedures that were adopted for the recent revisions, focusing on the principles of international benchmarking combined with cultural relevance that underpinned these new approaches. The chapter discusses the implications for international partnerships in teacher education and proposes the notion of policy appropriation (Rouf, 2020) as a helpful way to conceptualize the approach to change. It concludes with a call for further research into the relationship between best practice in teacher education and cultural context.

Keywords Teacher education  $\cdot$  Policy borrowing  $\cdot$  Policy appropriation  $\cdot$  Culture  $\cdot$  Bahrain

## Introduction

This chapter critically analyzes the procedures and underlying principles employed to undertake a revision of the Bachelors in Education program delivered to students training to become primary school teachers at the Bahrain Teachers College. It employs this analysis to critique the approach of policy borrowing for teacher education and to propose instead an alternative approach of policy appropriation. It argues that teacher education is a culturally embedded process, and that consequently what

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constitutes best practice in teacher training cannot be determined through some global standard independent of context. Rather, best practice is contextual and evolving.

The Bahrain Teachers College (BTC) was established in 2008 to be the sole provider of initial teacher education for government schools in the Kingdom of Bahrain. It is also the main provider of teachers' continuous development in the Kingdom. Established as a semi-autonomous college within the University of Bahrain, the BTC was founded in partnership with Singapore's National Institute of Education (NIE), with the explicit aim of contributing to the Kingdom's Economic Vision 2030 (Abdul Razzak & Albaker, 2015). Various academic programs were developed to meet this need, with the Bachelors in Education (BEd) being the flagship program to deliver high-quality teachers to Bahrain's primary schools, alongside postgraduate programs to train teachers for intermediate and secondary schools and for continuous professional development. The BEd program which was developed by the NIE remained little altered until a major revision was undertaken by the BTC in the period 2020–1.

This chapter explores the use of an international partner for the development of teacher education, acknowledging the reasons for drawing on Singapore's teacher training expertise at that historical juncture, but describing some limitations of this approach that have emerged over the succeeding decade. It describes the new approach to curriculum revision that has been employed in recent revision of the Bachelors in Education program. These experiences are used to reflect on the opportunities and perils of employing international partners in the development of teacher education.

Bahrain is an archipelago nation located in the Arabian Gulf. It is a predominantly Muslim, Arabic nation, and is the smallest of the Gulf Cooperation Council (GCC) states (and it is in comparison with other GCC states, rather than the Middle East more widely, that has typically framed research into Bahraini education). As with other Gulf states, there is a heavy reliance on expatriate employment; Bahraini nationals form 23.3% of the national workforce, but 87.2% of the workforce in the public sector and only 19.1% of the workforce in the private sector (Wiseman et al., 2014). GCC nationals, it has been suggested, view public sector employment as more desirable than private sector, with better job security, remuneration, and benefits (Wiseman et al., 2014).

Bahrain, like other countries across the region, has identified a need to transform its economy from a reliance on oil and a large public sector, to a more vibrant and innovative global economy with a larger private sector—a shift that is reliant on human resource development through education (Bahrain Economic Development Board, 2008). In other words, across the region, countries have sought to move to a knowledge economy, although the largely secular knowledge economy of the West should not be assumed to mirror the development of the knowledge economy in Islamic Gulf societies (Wiseman et al., 2014). In Bahrain, the Economic Vision 2030 is the foundational statement encapsulating these aims for national renewal and economic development (Bahrain Economic Development Board, 2008).

The chapter begins by charting the origins of the BEd program. The involvement of Singapore's National Institute of Education in transforming Bahrain's Economic Vision in educational practicalities is analyzed. Thereafter, the longer-term limitations of policy borrowing from Singapore are identified, although it is acknowledged that drawing on NIE's perceived expertise served important functions at a crucial historical juncture. A contrasting approach to the recent program revisions is described, which is termed policy appropriation. The chapter concludes by reflecting on the nature of context-sensitive partnerships in teacher education.

#### **The Singapore Solution**

In seeking to revolutionize its education system to address the ambitions of the Economic Vision 2030 (Abdul Razzak & Albaker, 2015), Bahrain's leaders turned to experts from Singapore's National Institute of Education. This was a highly symbolic educational relationship. Singapore had become seen in the GCC region as a model rapid-growth, high-performance economy with an education system that rated highly in international rankings (Kirk, 2014). Its transformation from a small, undeveloped Malayan island to an independent nation seen as an international power house had taken only a generation. Moreover, Bahrain and Singapore superficially shared characteristics; both are small islands with few natural resources, employing a high proportion of foreign workers. Alongside these symbolic reasons for the relationship, there were also more pragmatic considerations; Singapore was one of the few high-performing nations that had a national teachers college (Haslam, 2013) and therefore could offer a model for the new national college of the BTC. In other words, engaging Singapore's NIE was a way to gesture that the Economic Vision 2030 was achievable, to inspire radical change, as well as to assist with the practical work of making necessary change. The National Institute of Education was commissioned to collaborate with the Bahrain Ministry of Education on several initiatives, of which the renovation of the BEd curriculum was just one.

For Singapore, this project was one of many in which it sought to position itself as the "Global Schoolhouse" (Sidhu, 2005). It helped to establish a national teacher education college in Abu Dhabi as well as Bahrain. In addition, it has assisted with national education reforms in several other developing countries (Low & Lee, 2012). These projects, specifically the discourses concerning the role of Singapore in global education, formed part of the way that Singapore government re-engineered the nation as a global economy and legitimized itself (Sidhu, 2005).

The National Institute of Education was committed to taking a consultative partnership approach to changing education in Bahrain. Two of the faculty members involved have subsequently written their reflections on exporting the "Singapore model" to Bahrain (Low & Lee, 2012). They describe their approach as being one of capacity building and "to consider the institute approaching us for educational consultancy as equal partners. After conducting a thorough needs analysis, often via site visits followed by a meta-analysis of the situational context, recommendations are offered on how to bridge gaps and enhance key areas of educational development." (Low & Lee, 2012, p. 47). The BTC's Bachelors in Education program was one of the major outcomes of this process. The BEd program prepares graduates to teach in primary schools (grades 1–6). The initial teacher training offered through the BEd program takes five years, including a foundation year during which students acquire study and language skills. Thereafter, students follow a four-year BEd (as do primary teacher trainees at the NIE). The first year of the BEd is a general introduction to teaching and learning. Students spend the remaining three years following a specialist program, to either become Cycle 1 teachers (Grades 1–3) or Cycle 2 (Grades 4–6) specialists in either mathematics and science, Arabic and Islamic studies, or the teaching of English.

Teacher trainees on the program are employees of the Ministry of Education. As a result, teacher training in Bahrain places a stronger emphasis on patriotism and pursuing national needs than would be usual in many Western institutions of teacher training (Bailey et al., 2021). It is notable that an emphasis on nation building through teacher training has also been a feature of Singaporean education (Kam & Gopinathan, 1999).

The introduction of this program in partnership with the NIE therefore met a number of national goals at a key historical juncture. In many ways, it has been successful; BTC graduates are seen as well-prepared, skilled teachers (Aldabbus et al., 2019). The partnership clearly signposted the direction of change and symbolized a commitment to become a dynamic, innovative economy similar to Singapore. The choice of this partnership avoided drawing on teacher training expertise from Western nations, which may have had overtones of neo-colonialism and been likely to involve conflicts in philosophies of education.

However, there were also limitations of this approach; indeed, the interventions by the NIE have had mixed effects in Abu Dhabi (Haslam & Khine, 2016) as well as Bahrain. Consequently, as it has become evident that the BEd program in Bahrain requires significant amendation, alternative models for its revision have been considered. In the following section, drawbacks of employing Singapore as model are considered.

## **Policy Borrowing—A Critique**

The previous section has acknowledged the utility of drawing on NIE expertise for the founding of the BEd program and argued that it played a key symbolic role at an important historical juncture. However, limitations of the approach have also emerged over time. These difficulties have arisen primarily from the need for increased consideration of the relationship between teacher education and its cultural context.

The use of the NIE's programs, with minimal adaptation for Bahrain, constitutes an example of policy borrowing—a term that is used to refer to international travel of educational policies or practices from their context of origin to one for which they were not originally designed. Policy borrowing is a practice which is widespread in global education, but has received extensive critique as well as vehement adherents in recent years (Steiner-Khamsi, 2016). Some theorists have sought to understand when, how, and why such policy borrowing occurs; others have focused primarily on advocating for, or interrogating, its effects (Steiner-Khamsi, 2016). Countries such as Singapore, which have topped leagues of international education tests, are often selected for policy borrowing, although such countries are only drawn on if it fits policy-makers' domestic agendas (Steiner-Khamsi, 2014). Policy borrowing can be a good way to build a coalition and mobilize resources as the idea of meeting "international standards" can garner support for a policy (Steiner-Khamsi, 2016) (though Mohamed and Morris (2021) question whether coalition building plays a large role in the centralized political systems of the Gulf). Perceived weaknesses in the public sector-its unwieldiness, bureaucracy, and lack of receptivity to change-mean that there may be little belief in the possibility of home-grown reform. These weaknesses, paired with a colonial reliance on Western expertise and sufficient public sector wealth to afford to pay for borrowed policies, may make the idea of commissioning international experts to design change particularly appealing (Mohamed & Morris, 2021).

Policy borrowing in education has become widespread in the GCC over the last two decades (Romanowski et al., 2018), but has concomitantly garnered critique. Sahlberg (2011) devised the acronym the Global Education Reform Movement (GERM), using the metaphor of an infection to describe the dangers of taking educational ideas from a particular context into diverse education systems around the world. There is research evidence that teacher training programs across diverse contexts have become increasingly standardized as a result of policy borrowing (Harris et al., 2016). In the GCC, the "Global Education Industry" (the network of organizations and companies that trade educational advice, ideas, policies, and processes at an international level) has sold their standard products to different countries, constructing schools solely as institutions that develop human capital (Mohamed & Morris, 2021), thereby eliding other purposes and types of education.

Many of these critiques have questioned the relationship between policy borrowing and global inequalities, specifically the marginalization of non-Western approaches to education. Mohamed and Morris (2021) see policy borrowing as an approach that depends on "othering" post-colonial education systems, measuring their success in comparison with education systems that are deemed to be high performing and then selling solutions to them. They argue that it is a business model that has garnered huge rewards for a few international consultancy firms and organizations such as NIE. Wiseman et al. (2017) point to an increased reliance on borrowed models of teacher quality across the region. These models often pay scant attention to culturally rooted epistemologies of teacher education (Romanowski & Alkhateeb, 2020).

The cultural scripts of students—the shared norms, practices, and values that have developed from a context's history, traditions, and conditions—shape how they respond to imported pedagogical practices. The cultural scripts about teaching and learning in the GCC include epistemic scripts about the nature of knowledge, about teaching, and about cognitive flexibility (Romanowski & Karkouti, 2021). Romanowski et al. (2018) note that policy borrowing in the GCC can be in tension

with aims to preserve traditional values and promote religion through education. They explore the extent to which the cultural scripts that are prevalent across the region support or inhibit the applicability of borrowed policies:

- Scripts regarding cognitive flexibility. Arab students tend to believe in authority as a key source of knowledge and value obeying rules and traditions, whereas US students are more likely to question knowledge and its sources. GCC students may therefore feel ill prepared to answer questions at the top levels of Bloom's taxonomy.
- 2. Scripts regarding classroom learning and teaching. Arab students see good teachers are offering structured classroom environments and providing correct answers. They may take a banking approach to education, seeing it largely in terms of the acquisition of knowledge. Western approaches to teaching and learning can therefore create discomfort and self-doubt among Arab students.

Romanowski et al. (2018) argue that importing constructivist, learner-centered approaches in the classroom can create difficulties for teachers and learners and argue that policy learning should replace policy borrowing. Policy learning does not just take other nations' policies off-the-shelf, but sees them as a springboard for reflection on current policy. In a more recent paper, Romanowski and Karkouti (2021) identify how such cultural scripts concerning epistemology, characteristics of good teaching, and features of effective learning create tensions around the transportation of problem-based learning to GCC contexts. They discuss strategies to enable teachers to adapt the borrowed policy and overcome student resistance to imported approaches.

Policy borrowing has been blamed for indirect, longer-term adverse effects on the educational systems that employ it. Abou-El-Kheir and MacLeod (2019) argue that uncritical policy borrowing across the GCC has led to an expensive and ineffectual cycle of rapid reform followed by underperformance leading to further rapid reform. This is a dismissive summary that fails to acknowledge some of the advantages Bahrain reaped from its Singaporean important, as discussed above. However, evidence has also accrued of some of the limitations that have manifested over the intervening decade.

Attempts to import the Singapore model of teacher education were disappointing because of insufficient efforts to contextualize the program to Bahrain (Kirk, 2014). There were two aspects to this failure: first, a lack of understanding of the entrants to the program and their needs for teacher education; and second, an inadequate adjustment to the cultural context of the program. I shall briefly discuss each of these in turn.

First, there is a sharp contrast between the educational backgrounds of students admitted to NIE Singapore courses and those studying at the University of Bahrain; indeed, it was Singapore students' markedly higher achievements on TIMSS that suggested it was a system to emulate. By contrast, Bahraini eighth grade students have scored below the CenterPoint since the year 2000 (Al Mutawah et al., 2020). This contrast in intake competencies may help to explain the views of BTC graduates and their school principals concerning the limitations of the BEd program; analysis

of survey data suggests that while overall both students and their principals felt they had been well prepared for their work as teachers, one salient weakness identified by principals was inadequate content knowledge for the specialization BTC graduates are teaching (Aldabbus et al., 2019).

Second, there was little attempt made to adapt the teaching materials used in Singapore to meet the contextual needs of Bahrain. Demand for culturally relevant pedagogy has emerged in Western countries as a reaction to the marginalization of the perspectives of minority and indigenous communities, and Bakali and Memon (2021) have argued for pedagogies that are responsive, reflective, and reflexive in responsive to the transplanting of approaches from one part of the globe to another. They suggest that this is particularly important in the context of the GCC, owing to the large number of expatriate educators. Yet, at BTC, instructors (who are, indeed, often expatriates with a range of nationalities) adopted the Singaporean teaching materials wholesale and felt uncertain whether they were authorized to modify them for BTC needs.

Key approaches used in the program have met with limited success because of these contextual differences. The implementation of Communicative Language Teaching (CLT) in Bahraini schools, for example, has had only moderate success, with Bahraini language assessments remaining exam-focused, containing questions that reward rote memorization (Hayes, 2017). Although Bahrain's Economic Vision 2030 is focused on transformation to a global economy, many students and parents do not see the relevance to their own lives; they plan to take secure jobs in Bahraini's public sector, primarily as police officers or in the military, for which CLT in English feels irrelevant (Hayes, 2017). These are jobs traditionally done by their families, and the students do not aspire to professional or global careers. Revealingly, one teacher in Hayes' study explicitly stated that the skills were suitable for Singaporean students, but not for Bahraini students.

There is also evidence that there remain challenges with the development of higher-order thinking skills (HOTS) among Bahraini students. Abdul Razzak (2020) argues that both school students and BTC graduates need enhanced opportunities to develop the critical thinking skills that are required for the success of Bahrain's Economic Vision 2030. Again, this is in contrast to Singaporean school graduates, who have repeatedly demonstrated their competence in these areas on international assessments.

In summary, growing awareness of the limitations of the Singaporean model led to a decision to revise the BEd program. The remainder of this chapter is focused on explaining and reflecting on the approach that was taken to such revisions.

## A New Approach: Policy Appropriation

Five years after the implementation of the BEd program, a preliminary program review was implemented. At that stage, however, owing to the length of bachelor studies, the first BTC cohorts were only just beginning their teaching careers; specifically, there was insufficient data to justify a major revision. In these circumstances, then, some minor adjustments were made to particular courses, led by the specialist departments (English language education, mathematics and science, Arabic and Islamic studies). It was not until 2019 that the decision was made to undertake a comprehensive revision. Three principles underpinned the approach taken to this ensuing process:

- 1. Led by Bahrain. The revised curriculum should be "home grown."
- 2. Benchmarking of change. The revised program should be based on comparisons with international practice.
- 3. Partners not predators. A symbiotic relationship with international partners should replace the consultancy model.

Overall, the approach was not one of policy borrowing but of *policy appropriation*. The term appropriation means to make something one's own, to take possession of something and to fit it to one's own needs. It is a term that has been employed to understand how teachers interpret and enact educational policies (de Jong, 2008), or how students respond to policy mandates (Fuentes, 2020), but also to think about the policy-making process itself (Rouf, 2020); the common thread across this diverse literature is a preoccupation with the relationship between policy and power. While the idea of appropriation has sometimes had negative connotations—when used for a dominant group using an oppressed group's cultural norms, for example—in a post-colonial context, the notion of appropriating can be seen as a form of restorative justice. The term policy borrowing suggests that true ownership of a policy remains with the country from which it is borrowed; they continue to be the arbiter of the "correct" way to implement the policy. Policy appropriation suggests a willingness to learn from other contexts, but without loss of control; agency is firmly retained by the country doing the appropriation.

#### Led by Bahrain

The first strand of the policy appropriation approach involved retaining decisionmaking over teacher training in Bahrain firmly within Bahrain. Although NIE had performed a useful and important role in the establishment of BTC—and the purpose of this paper is not to criticize that—as part of the coming-of-age of BTC, it was deemed no longer necessary to employ an external organization to oversee the process of curriculum revision. Instead, a committee was set up within the college with the specific remit of overseeing the curriculum revisions. Consultation did take place with key stakeholders outside the college. For example, the Ministry of Education, the sole employer of BTC graduates, was closely involved in the process. However, as the primary weakness of the existing curriculum was a failure to contextualize it sufficiently for Bahrain (Kirk, 2014), for example to understand the aspirations of Bahraini parents, teachers, and students (Hayes, 2017), this weakness was best addressed by those with closest knowledge of the Bahraini context.

#### **Benchmarking of Change**

The second strand was a formal process of benchmarking proposed changes against a range of teacher education institutions worldwide. Benchmarking is a technique by which processes for achieving objectives are systematically compared with leading institutions. It offers a tool for self-evaluation, a means of improving practices that is rooted in evidence. Benchmarking is a process that was originally developed by the commercial sector, as a tool by which competitors could learn from outstanding products or marketing processes, but in some contexts, has been increasingly adopted as a management tool in HE (Vasilkova, 2015). Benchmarking in HE can take many forms, including internal benchmarking (comparing different programs within the same institution) and competitive benchmarking (to learn from competitor institutions), and can be at national or institutional level. The key point is that the comparisons are rooted in data (Vasilkova, 2015). University leaders from a range of HE institutions have reported many advantages of benchmarking (Tasopoulou & Tsiotras, 2017), although it is notable that many of these presuppose a neoliberal approach to HE as a competitive consumer good-gaining competitive advantage and reducing costs receive as much attention as quality improvements. At the University of Bahrain, trans-institutional benchmarking is employed for all program development. This is not competitive in nature; these institutions are not seeking to attract the same group of students as they are invariably located outside the Kingdom. Although the datafication of HE through processes such as benchmarking can be seen as a form of social control that renders certain measurable behaviors more visible and intensifies educational work through the pressures of comparison (Williamson et al., 2020), it is seen in Bahrain primarily as a way of legitimizing practices.

We further used benchmarking as a means of provoking reflection on our own unspoken assumptions about effective teacher education. We conducted a systematic benchmark of the modular structure and modular content of our program, drawing on institutions from across the Middle East, the UK, Canada, Australia, New Zealand, the USA, and Singapore. Discussions around the benchmarking findings involved faculty from every department in the college. The approach was not simplistically to use benchmarking to emulate these locales, but where discrepancies between our proposals and common practices elsewhere were found, to discuss and explain.

#### **Partners Not Predators**

The third strand of the approach of policy appropriation was a continuity of the original impetus to involve Singapore National Institute of Education—we wanted to maintain collaboration with international partners. However, the previous involvement of the NIE, despite the avowed intentions of NIE to create a partnership (Low & Lee, 2012), was predicated on an unequal relationship; they were contracted to export the "Singapore model" to Bahrain and paid handsomely for doing so. The skepticism of commentators such as Mohamed and Morris (2021) and Romanowski et al. (2018) concerning policy borrowing is rooted in the historical inequalities that may be replicated through such an approach; international organizations and consultancies are seen as exploiting post-colonial inequalities in pursuit of vast profits in the Global Education Industry (Mohamed & Morris, 2021).

In place of this prima facie predatory approach, we aspired to a symbiotic relationship with international partners. This was based on lectures and workshops given on a reciprocal basis, on topics of mutual interest. This view of partnerships invited multiplicity, not an exclusive relationship. We opened up conversations with institutional partners in diverse contexts, including Switzerland, the USA, and New Zealand, inviting them to present topics on which they had particular expertise and in exchange leading seminars explaining our own curricular innovations. In other words, we sought to engage in the kind of responsive, reflective, and reflexive approach to pedagogy that Bakali and Memon (2021) see as necessary to ameliorate the dangers of policy borrowing. Although this process was initiated before COVID-19 struck Bahrain, one legacy of the pandemic was that it disrupted teacher education norms globally (Bailey, 2021), giving up common uncertainties with these partners, and thereby opening up further conversations about the future direction of teacher education.

In potential tension with this ambition, the decision was also made to seek the Council of Accreditation of Educator Preparation (CAEP) accreditation for the college. CAEP is a US-based organization that accredits teacher preparation programs, according to whether they meet CAEP's standards. Romanowski (2020) argues that CAEP accreditation of non-US teacher education programs is educational neo-colonialism, suggesting that it involves the colonizers (CAEP) constructing what they bring as superior to indigenous approaches. The colonized (the non-US teacher educators) must adjust themselves to this way of thinking under the guise of it being "international standards." Romanowski (2020) suggests that the requirement to align the teacher education curriculum to CAEP standards will involve abandoning more culturally appropriate approaches; specifically, he suggests that CAEP mandates cooperative learning and fails to acknowledge that teacher-centered classrooms continue to dominate in Middle Eastern contexts.

The decision to seek CAEP accreditation does rest somewhat uneasily with the aspiration to retain Bahraini control for evaluating the teacher education curriculum; however, it does not match the kind of predatory neo-colonialism that Romanowski fears. Romanowski (2020) seems to have little faith in the ability of non-US teacher educators to exercise agency over the accreditation process, adapting this framework for local ends. Indeed, in our own curriculum evaluation, the CAEP aim of achieving diversity led to a focus on the factors leading to the under-achievement of male students in Bahraini schools, as that is the pre-eminent diversity challenge in the Bahraini context. Moreover, Romanowski downplays the important distinction that

CAEP accreditation is invited not imposed. CAEP accreditation rests largely on reflection on success in achieving a program's stated objectives, rather than adherence to a norm, an approach that sits easily beside our own approach to institutional partners.

In summary, these three strands constituted our main approaches to policy appropriation for effective teacher education. However, it is acknowledged that techniques for policy appropriation deserve further discussion and research. The previous approach of policy borrowing, contracting international organizations and uncritically transporting an approach from another context, has a more extensive history in the region (Abou-El-Kheir & MacLeod, 2019) and has the merit of simplicity; policy appropriation, based on acknowledgment of the limitations of borrowing, needs time and further experience to evolve to meet the needs of teacher education in the Gulf.

#### Conclusion

Bahrain is not another Singapore. Although the two nations bear superficial similarities, the needs of their education systems, and specifically of their requirements for initial teacher education, are in sharp contrast (Kirk, 2014). These differences mean that, although the NIE's contributions to establishing teacher education at Bahrain Teachers College, provided a useful foundation (Aldabbus et al., 2019), the program requires revisions to meet the current Bahraini context.

In undertaking such revisions, BTC did not need to borrow teacher education ideas from another Singapore. It did not need to find another organization from within the Global Education Industry that could sell a substitute product. What constitutes best practice in teacher education cannot be determined independently of gender and other cultural norms (Romanowski et al., 2018; Romanowski & Karkouti, 2021). Hence, in place of policy borrowing, an approach of policy appropriation (Rouf, 2020) has been adopted. Three pillars of this strategy were developed: It should be led by Bahrain; it should be benchmarked with international practice; and a symbiotic relationship with potential partner institutions should be employed.

This chapter has reflected on the process taken to the revisions and analyzed the background to the need for change; it is not able to report on the success of such policy appropriation. The implementation of the revised program will begin in the 2022–3 academic year, so it is too soon for formal evaluation of the efficacy of this approach. Indeed, further discussions are taking place within BTC to explore whether additional strands should be added to these three strands of policy appropriation. Our conceptualization of best practice in teacher education is thus not only contextual but constantly evolving. This remains a critical area for future research into developing teacher education in the Middle East.

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## Chapter 27 A Study on Teacher Education in Turkey



Ayşegül Avşar Tuncay

**Abstract** Turkey has a deep-rooted history of teachers' education. The establishment of education departments at universities and the transition to four-year undergraduate programs are positive developments that show the importance placed on teachers' training. The twenty-first century has brought on rapid societal change, with an emphasis on individuals who are independent and have more freedom. This shift has also led to changes in the education of teachers, with a goal to train "high-quality teachers" in Turkey. To achieve that goal, teachers' education has been conceptualized to train individuals who are creative, questioning, attuned to societal issues and to their environment, as well as individuals who have critical thinking, research, and communication skills along with extensive knowledge of technology. The teacher education program implemented in Turkey is divided into categories such as professional, general culture, and pedagogical content courses. A teacher education program in which professional, general culture, and pedagogical content courses are handled independently from one another and teaching practices are extremely limited creates certain obstacles in training teachers with the desired qualifications. For that reason, education departments need to adopt a more holistic approach and need to develop and implement dynamic models that allow for diversity instead of uniformity. With this aim in mind, a viable teacher education model can be developed in Turkey by researching international sources written on the subject of teacher education, and reform proposals, as well as assessing other successful teacher education programs. The model that will be designed should aim to train teachers who are dedicated to their profession, as well as individuals who are progressive, knowledgeable, and up to date on the developments in their field.

Keywords Teacher education  $\cdot$  Turkey  $\cdot$  Social change  $\cdot$  Pedagogy  $\cdot$  Dynamic model

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## Introduction

The most important force that enables a person born as a biological being to transform into a cultural being is education. Man learns to survive through education. Man learns to survive through education. An uneducated person cannot live and develop. If there is no education, there is no "*human*" either. It should be one of our priority goals to educate an informed, productive and decent person in a global information society where the knowledge, skills, and virtues that need to be learned are increasing exponentially. For this reason, the importance of providing the best possible education to children who are adult individuals of the future is increasing day by day. Every state, society, and family want to educate their children according to their own ideals. Although education begins in the family, schools are the institutions where both national culture and professional education in today's society are carried out in a planned and efficient manner. Teachers are also responsible for this. Therefore, the best education to be given to children can only be provided by well-trained teachers.

Teachers should be the source and role model of knowledge, ability, love and virtue. In this sense, teaching is a job that people who know and love this profession can do, requires a special education, is unique and requires sacrifice (Darling-Hammond, 2006). Alkan (1998) states that the teaching profession is a professional field of interest that requires academic and professional formation based on special expertise in the field, with social, cultural, economic, scientific, and technological dimensions related to the education sector. Since they perform an important function in society, a serious effort is made to train teachers and in doing so, professional expertise is used. Teaching is seen as the main source of social, economic, cultural, and political development of society. Since the quality of education in schools is directly related to the quality of the teacher, societies attach great importance to teaching. Moreover, teachers implement the educational policies of the country to which they belong, influence educational policies, and are, of course, significantly affected by those educational policies (Can, 2019). According to the saying that makes it clear why societies should value the teacher and the education of teachers, and which is the Japanese philosophy of education: "A society that can reuse every person it raises is a rational, civilized, progressive society. However, the society that can select the best adult people for the teaching profession is the strongest society." The success of the educational system that exists in a society depends largely on the qualifications of the teacher who runs it and puts it into practice. Teacher education is a multifaceted and complex issue. The following questions should be asked when establishing and expanding teacher education systems or improving existing arrangements:

- What kind of teachers do we need in our society?
- What is the role of the teacher in a changing and developing society and what should it be?
- In which institutions should teacher candidates be trained?
- What should be the structure and status of these institutions, the duration of education and their education programs?

- How should prospective teachers be selected for these institutions?
- What is the place and status of the teaching profession in society?
- What is the supply and demand balance in teacher training?
- What should be done for the employment of teachers and their on-the-job training? (Duman & Abide, 2021).

Over the past three decades, several countries have seen significant restructuring of their teacher education systems. Against the background of all these efforts, it is seen that there are criticisms directed at teacher training programs and, accordingly, the purpose of training qualified teachers (Erdem, 2015). When the history of Turkish education is examined, it is seen that there is a long-established educational tradition and a rich teacher training experience within this tradition. In order to train teachers in Turkey, new models have been tried by considering the sociocultural, political, and economic conditions of our society, from the first day of the opening of schools to the present. Within this framework, within the scope of this study, the general situation of teacher education in Turkey will be discussed. In the first part, there is the history of teacher education, in the second part, the current situation of teacher education, in the fourth part, current problems of teacher education and in the last part, the conclusion and a recommended teacher education model for Turkey.

#### **History of Teacher Education in Turkey**

Turkey is one of the countries with a deep-rooted history in teacher education. Until the eighteenth century, education has been carried out by the clergy in Turkish society as well as in the rest of the world. After the French Revolution of 1789, an understanding of education that has been different from the traditional clergy-teacher type and valued democratic, secular and positive sciences emerged throughout the world. In 1794, the first teacher training school in the world has been opened in France, and other Western countries followed France (Öztürk, 2002). Simultaneously with these developments in Europe, various steps have been taken toward teacher education in the Ottoman Empire. In the Ottoman Empire, the first step has been taken in the period of Mehmet the Conqueror, when separate courses have been given to teachers in the primary schools of Eyüp and Hagia Sophia madrasas (Başaran, 1993). However, no attempt has been made to train teachers until the beginning of the nineteenth century. In order to meet the teacher needs of the high school (former secondary school education institution), which is tried to be created in the Western model and aims to train civil servants for state institutions, on March 16, 1848, a modern teacher's school has been opened in Istanbul under the name of "Dârülmuallimin." In 1882, teacher training schools have been opened outside of Istanbul, and in 1908, their number increased to 31 across the country (Öztürk, 2002).

According to today's developed countries, teacher education in the modern sense, which began in our country after 40-50 years, gained momentum with the proclamation of the Republic of October 29, 1923. Under the leadership of Mustafa Kemal Atatürk, 80% of the Turkish Nation, who emerged victorious from the war thanks to his determination and faith, lived in the village at that time. There have been no schools or teachers in almost all of the villages. In the country with a population of 13 million, the real need has been for the people to learn to read and write. This situation has caused the primary education to be given priority in the education policies followed by the governments of the Republic, and the primary education to be considered and handled as a village education problem. With the Law of Unification of Education (Tevhid-i Tedrisat Kanunu) published in 1924, compulsory primary education and making it free in public schools necessitated the establishment of Village Teaching Schools. In their reports, Dewey (1924) and Kühne (1925), who came to Turkey, stated that the education system in Turkey should include education according to the village and training village teachers. In the reports of expert educators, the Primary Teachers Schools, which have been taken over from the pre-Republican period upon the recommendation of training teachers for village schools, met the basic teacher needs of primary schools in the first fifty years of the Republic by going through various stages and increasing their numbers.

In the 1940s, the need to train teachers who would raise the type of "urban *people*" who would live in the city in the future and make the village more livable arose. Village Institutes, which have been established for this purpose, played an active role in training teachers to work in village schools. The biggest contribution of the Village Institutes system to the Turkish education system has been to implement the educational principles and methods, which cannot enter the classrooms with the traditional education system, with concrete examples in nature. The pre-service teachers learned by doing and living here, and they took what they learned to the schools they went to. In the Village Institutes, culture courses, agricultural courses and studies, technical courses and studies are included under three main course groups (Akyüz, 2014). When these courses are examined, it is understood that with culture courses, teacher candidates are tried to gain all kinds of technical knowledge and skills from blacksmithing, carpentry, craftsmanship to handicrafts that a villager will need in village life, with technical lessons and studies related to field and professional knowledge, agriculture lessons and studies, all fields of agriculture (Duman & Abide, 2021). Village Institutes, which existed until January 27, 1954, merged with teacher schools and continued their teacher training practices for many years under the name of Primary Teachers Schools.

Since the 1974–1975 academic year, *primary schools* have been renamed *Teacher's High School*, while some primary schools have been transformed into two-year *Educational Institutes* that provide associate degree level education in order to train classroom teachers in basic education. Courses in Education Institutes are included as general culture, classroom teaching and professional teaching knowledge courses. In addition, pre-service teachers are obliged to choose one of the "business and technical education" and "elective fields," and one of the preschool education and special education as an auxiliary branch. Apart from the regular program, teachers are

trained through "accelerated education." For example, the teaching practice period covers a very short period of 15 days. The institutes, which have been opened for the purpose of training teachers for primary education and whose number reached 50 in 1976 (Öztürk, 1998), continued their existence under the Ministry of National Education until July 20, 1982, like other higher education institutions that train teachers for secondary education. All processes such as the education programs, administrators, teacher appointments and appointments, student quota and student selection of these schools, most of which are boarding, have been carried out by the General Directorate of Teachers' Schools of the Ministry of National Education. With the transfer of teacher training institutions to universities, the Turkish teacher training system gained a new structure, status and functioning (Duman & Abide, 2021). Such a holism has been absent in teacher education in Europe and America at that time, as it is now. As it is known, preschool and primary education teacher education in Europe is given in higher schools, and secondary education field teaching is given in universities. However, in our country, it is one of the original decisions taken in our history of teacher education, in terms of determining and applying the criteria that should be covered and met in teacher education (Yıldıran, 2015).

The transfer of two-year education institutes, which provide teacher education, to universities under the name of *Education High School*, provided a brand-new structure for the teacher training system (Duman, 1999). It is seen that general culture courses are mostly (61%) in the Education High School program, and pedagogical courses are less (24%) (Öztürk, 1998). Another striking point in the program is that the duration of teaching practice, which is 15 days in education institute programs, has been increased to 30 days. Afterward, considering that 2 years would not be enough to train teachers, a decision has been taken by the Council of Higher Education (CoHE) in 1987 to increase the education period of the higher education schools to four years. Education High Schools Curriculum has been prepared by CoHE to be implemented as of the 1990–1991 academic year (Öztürk, 1998). Thus, the education period of all higher education institutions that train teachers has been increased to at least the undergraduate level. 62.5% of the courses taught are "pedagogical content knowledge," 25% are "professional teaching knowledge," and 12.5% are "general *culture*" courses. However, another important point about the program is that the teaching profession courses are diversified as "observation in schools," "practice in schools," "internship studies," and "practice seminars."

An important development has been experienced in the field of teacher training in Turkey, with the linking of higher education schools to *education faculties* in 1992. With a decision taken by CoHE in 1997, the faculties have been restructured, and their programs have been rearranged. At the same time, we can describe the restructuring of education faculties as a "*radical change*" toward the formations and realities that occur in meeting the need for teachers, pre-service training, and employment of teachers (Erdem, 2013). The first of the two innovations brought by the restructuring of the education faculties is the "*National Committee for Teacher Training (NCTT)*" and the second is "*Accreditation*." NCTT is the board that provides the Ministry of National Education (MoNE), CoHE and education faculties to work in cooperation and provides consultancy on all matters related to teacher training. Accreditation, on the other hand, refers to the supervision of the education faculties according to the predetermined standards, within the framework of the "Pre-Service Teacher Training Project" carried out by CoHE in partnership with the MoNE and the World Bank (Erdem, 2013).

Following the comprehensive restructuring carried out in 1997, it is seen that the flawed aspects of the previous model in teacher training undergraduate programs in Turkey in 2006–2007 have been corrected and updated in line with the needs. It is observed that the arrangements in the first stage are mainly made in undergraduate programs that train teachers for primary education. These are preschool, classroom teaching, primary school mathematics, science, computer and instructional technologies, social studies, and Turkish language teaching undergraduate programs. In the second stage, it is mentioned that some revisions have been made in the light of the feedback about the programs organized and other programs are arranged accordingly. The renewed program consists of 20% general culture, 50% pedagogical content knowledge and skills, and 30% professional teaching knowledge and skills courses. In addition, due to the high number of basic courses, the number of elective courses has been kept less in this program and the practice of "undergraduate minor" has been terminated on the grounds that the requirement in the past periods has been eliminated. Within the scope of general culture courses, a new course called "community service practices" has been put in place, which is mandatory for all programs. Students in this course will prepare projects for producing society's current problems of investigation and solution, panels, conferences, congresses, and scientific activities such as symposia, speakers, or participate as editor will be provided (CoHE, 2007). However, in multigrade classrooms during teaching practice their teachers, the opportunity to make applications and boarding primary school in the village have been given new programs together (Kavak et al., 2007). The new structures that took place after the transfer of the teacher training business to the university has set the stage for the fact that the programs of the faculties that train teachers have been renewed many times according to national and international developments, and these changes continue today.

As a result, as can be understood from the explanations made so far, significant improvements have been made in the training of teachers in our country since the Republican period. These changes can be summarized as follows:

- 1. In the early years of the Republic, teacher resources, which have been limited in terms of programs and types, gradually increased and started to show diversity.
- 2. Since the foundations of the new state have been laid, Turkey has been constantly searching for better and more useful teachers.
- 3. The issue of training teachers for the village has been pursued for many years as a separate policy.
- 4. While teacher training schools have been opened in big cities or mostly in the Western regions of the country in the first years of the Republic, education faculties began to be opened in almost every province by transferring them to universities over time.

- 5. Since the need for teachers could not be met, temporary solutions such as accelerated education, temporary substitute teacher, letter teaching, etc. have been sought.
- 6. The education period of teacher training institutions has been gradually extended and increased to higher education level.
- 7. A balanced distribution of general culture, pedagogical content knowledge, and professional teaching knowledge courses has been ensured in the program being implemented in Turkey on teacher education.

However, efforts to increase both quantity and quality in teacher education still remain as an important agenda item in front of the education public (CoHE, 2007).

#### **Teacher Education in Today's Turkey**

Examination of Higher Education Institutions (EoHEI), which is a test exam, is applied in the selection of candidate teachers in Turkey. According to the exam scores, teacher candidates who placed in the education faculties are subjected to a four-year teacher training in the education faculties. The number of faculties providing teacher education in Turkey is 93. The current teacher education program is carried out by considering the results of the general and special field competencies of the teaching profession carried out under the coordination of the MoNE. Following the changes made in 2006–2007, the teacher education programs have been updated again and the new program started to be implemented as of the 2018–2019 academic year.

Program development and evaluation in education is a field of study in itself, and programs prepared in all areas have to be reprepared over time in accordance with changing needs and demands. It has been more than ten years since the teacher education undergraduate programs were updated, and various research and evaluations have been made about the existing programs in this process. According to the determination made as a result of the evaluations made, the recreation of the courses for pedagogical education and the professional teaching knowledge courses and the emphasis on these in the programs, the spread of teaching practices over a longer period of time and the realization of them in a more structured way, the course that the MoNE reprepared and put into practice the teacher training undergraduate programs harmonizing with the programs has come to the fore as a need. The updating of the programs has been carried out in three different stages: the formation of the program development commissions, the field scanning process and the program update process. As a result of the studies, nine different sections, 33 departments affiliated to these sections, and 25 different teaching programs under these departments have been created under the roof of the education faculty in the new teacher training program. The sections, departments, and programs created accordingly are given in Table 27.1 (CoHE, 2018).

Section	Department and program	
Department of Physical Education and Sports	Physical Education and Sports Department – Physical Education and Sports Teaching Program	
Department of Computer and Instructional Technologies Education	Department of Computer Education and Instructional Technologies – Computer and Instructional Technologies Teaching Program	
Department of Educational Sciences	<ul> <li>Philosophical, Social and Historical Foundations of Education Department</li> <li>Department of Measurement and Evaluation in Education</li> <li>Curriculum and Instruction Department</li> <li>Department of Educational Administration</li> <li>Department of Lifelong Learning and Adult</li> <li>Education</li> <li>Department of Instructional Technologies</li> <li>Department of Guidance and Psychological</li> <li>Counseling</li> <li>Guidance and Psychological Counseling</li> <li>Program</li> </ul>	
Department of Fine Arts Education	Department of Music Education – Music Teaching Program Painting Business Education Department – Painting Education Program	
Department of Mathematics and Science Education	Department of Biology Education – Biology Teaching Program Department of Science Education – Science Education Program Department of Physics Education – Physics Teaching Program Department of Chemistry Education – Chemistry Teaching Program Department of Mathematics Education – Mathematics Teaching Program – Elementary Mathematics Teaching Program	
Special Education Department	Department of Education for the Visually Impaired Department of Education for the Hearing Impaired Special Talented Education Department Department of Education for the Mentally Handicapped – Special Education Teaching Program	

 Table 27.1
 Education faculty department, department, and program template

(continued)

Section	Department and program
Department of Turkish and Social Sciences Education	Department of Turkish Education – Turkish Teaching Program Department of Geography Education – Geography Teaching Program Philosophy Group Education Department – Philosophy Group Teaching Program Department of Social Studies Education – Social Studies Teaching Program Department of History Education – History Teaching Program Department of Turkish Language and Literature Education – Turkish Language and Literature Teaching Program
Department of Basic Education	Department of Preschool Education – Preschool Education Program Classroom Education Department – Classroom Teaching Program
Department of Foreign Language Education	Department of German Language Education – German Teaching Program Department of Arabic Language Education – Arabic Teaching Program Department of French Language Education – French Teaching Program Department of English Language Education – English Teaching Program Department of Japanese Language Education – Japanese Teaching Program

Table 27.1 (continued)

The courses included in the 2018 teacher education undergraduate programs currently being implemented in Turkey were grouped into three groups as "professional teaching knowledge (PT)," "pedagogical content knowledge (PC)," and "general culture (GC)" courses are given in Fig. 27.1 (Yazçayır & Yildirim, 2021). In all programs, PT courses took place at a rate of 30–35%, GC courses at a rate of 15–20%, and PC courses at a rate of 45–50% (Duman & Abide, 2021). Thus, minimum standards have been established in the process, content and output stages of teacher education programs. In this context, the courses related to PT, GC, and PC have been renewed in terms of content, hours, and credits based on international standards, and thus, a unity of practice has been achieved in all teacher education programs.

*Professional teaching knowledge (PT)*: It is the professional dimension that provides the behaviors required by the teaching profession related to the theoretical and applied aspect of educational sciences and provides answers to the questions of who, why, how much, where, and how to teach in a scientific way. Its scope includes the teacher's knowledge of general principles and methods related to education and training. *Pedagogical content knowledge (PC)*: *It* refers the knowledge of the teacher





about the subjects to be taught. This is the dimension in which the knowledge, skills, behaviors, values, and attitudes related to the field in which the teaching will be made are acquired is within the scope of this field. The teacher should have a good grasp of the basic concepts of the subject to be taught and be able to arrange them in accordance with the content of the subject. *General culture (GC)*: It is aimed that individuals become well-qualified intellectual citizens, culturally advanced, and better prepared for the teaching profession.

In the program, which was updated in 2018, the number of elective courses increased significantly compared to the previous program, and as a result, many elective course alternatives for course categories were offered. In addition, it has been determined that in this program, besides the pedagogical courses, more emphasis is placed on the professional teaching knowledge courses. Among other things, another important issue that draws attention in this program is that the practice hours of the courses have been reduced compared to the previous program and they have assumed a more theoretical structure. However, while it is not enough for teachers to have only theoretical knowledge of any course, teachers also need to have adequate teaching methods about how to teach and how to apply and use the knowledge they acquired before the service in the profession (Çiltaş & Akilli, 2011; Saracaloğlu & Ceylan, 2016). It is believed that the fact that the practical hours of classes are not included in the teacher training program of our country is a major deficiency in terms of the requirements of the professional teaching and the quality of the teacher (Ulubey & Basaran, 2019). Teaching is also a skill profession and candidates need to be trained in practice. In a study conducted on the program that was updated in 2018, field expert faculty members evaluated the necessity of "providing a sufficient number of elective courses" as the most positive aspect of the program; on the other hand, they also stated that the applied courses were insufficient in terms of duration and the pedagogical courses were reduced (Abide, 2020).

Before the new program graduates, the CoHE authorized the relevant boards of higher education institutions to determine the courses, curriculum, and credits in the teaching programs with a decision taken on August 18, 2020. For this, the relevant committees in the authorized faculties of education should consider the grouping

as "*pedagogical content courses*," "*professional teaching courses*," and "*general culture courses*" regarding the course categories, and also on the "number of courses, course hours/number of credits and intensity" they should also pay attention to the order in this grouping. While this decision is being evaluated, universities should lay the groundwork for the preparation of a program by establishing a joint working group and communicating with each other, rather than acting individually. In addition, they should work in cooperation with the MoNE, evaluate the outputs of the 2018 program and act with the need to prepare a core program by preventing the fielding. The Deans Council of the Faculties of Education is expected to guide the study on this subject (Duman & Abide, 2021).

#### **General Competencies of the Teaching Profession in Turkey**

The positive structuring that took place with the establishment of education faculties and the transition to four-year undergraduate programs in Turkey shows the importance given to teacher training. The fact that the people of the twenty-first century have a freer and stronger structure and rapid changes in the social sense have brought differentiation in teacher education to the agenda in order to train "*highquality teachers*" in our country. For this, creative and critical thinking, questioning, investigating, communicating, technology, and society in order to educate individuals about their environment, this conceptualization has become important in teacher education.

Considering that teachers have a direct and significant impact on the quality of education, having highly qualified teachers is one of the most important indicators of development in the field of education. Based on this understanding, countries are trying to determine the qualifications of their teachers who will help them achieve long-term goals. However, it is not possible to define a common and universal teacher qualification for every country, and although some important fields show similar characteristics, the qualifications sought in teachers vary according to the needs of the age and educational philosophies in the historical process. This continuous change required each country to independently determine competence within the framework of its own conditions and educational philosophies in determining the knowledge, skills, attitudes, and values that teachers should have.

In Turkey, the qualifications and competencies sought in teachers are determined by the MoNE. In this context, the first official studies on teaching qualifications started in 1998. In the 2000s, the modern sense of standard setting studies for teachers around the world led to the need to establish a common standard in teacher qualifications and competencies in European Union countries. At the same time, Turkey needed to update teacher competencies and sought the opinions of many stakeholders in order to reflect national and international developments on the field of education and to adapt to the innovations in our education system. We can list some of these stakeholders as Council of Higher Education, Student Selection and Placement Center, Vocational Qualifications Authority, Ministry of National Education Board of Education and Training and many academics and teachers. In this process, the basic policy texts of international organizations such as the Council of Europe, the World Bank, International Labor Organization (ILO), Organization for Economic Cooperation and Development (OECD), United Nations Educational, Scientific and Cultural Organization (UNESCO), and United Nations International Children's Emergency Fund (UNICEF) on education and teaching and the qualification documents of many different countries such as the USA and Australia, Finland, France, Hong, Kong, UK, Canada, and Singapore were examined, and teacher qualifications were updated in 2017 with a large-scale participation (MoNE, 2017). In this context, the updated *General Competencies of the Teaching Profession* consists of three interrelated and complementary competence areas, namely "*professional knowledge*," "*professional skills*," "*attitudes and values*," and 11 competences under them and 65 indicators related to these competences. The said competence areas and the general competences within these fields are given in Table 27.2 (MoNE, 2017).

Tuble 27.2 General competencies of the teaching profession			
A. Professional knowledge	B. Professional skill	C. Attitudes and values	
A1. Pedagogical information	B1. Education planning	C1. National, spiritual, and universal values	
He has advanced theoretical, methodological, and factual knowledge, including an inquiring perspective in his field	Effectively plans educational processes	It observes national, spiritual, and universal values	
A2. Pedagogical education information	B2. Creating learning environments	C2. Approach to the student	
He has knowledge of the curriculum and pedagogical content of his field	It prepares healthy and safe learning environments and appropriate teaching materials for all students where effective learning can take place	Demonstrates an attitude that supports the development of students	
A3. Regulatory information	B3. Managing the teaching and learning process	C3. Communication and collaboration	
Acts in accordance with the legislation regarding his duties, rights, and responsibilities as an individual and as a teacher	It carries out the teaching and learning process effectively	Establishes effective communication and cooperation with students, colleagues, families, and other education stakeholders	
	B4. Assessment and evaluation	C4. Personal and professional development	
	Uses assessment and evaluation, methods, techniques, and tools in accordance with its purpose	Participates in studies for personal and professional development by making self-evaluation	

Table 27.2 General competencies of the teaching profession
As a result, the knowledge, skills, attitudes, and values that a teacher should have been put forward in a concrete way with the General Competencies of the Teaching Profession, and it serves as a basic reference text that guides the policies to be developed in this field. With the teacher qualifications document, besides determining and developing the contents of the theoretical and practical courses of universities for teacher training, the qualifications to be sought in teachers to be employed will be determined in a concrete way and the process of admission to the profession will be organized in accordance with the qualifications. In addition, it will be possible for current teachers to objectively see their own strengths and aspects that need improvement. Thus, teachers will be more motivated to ensure their professional development, and they will be able to take the necessary responsibilities in order to provide continuous professional development (MoNE, 2017).

#### **Current Problems of Teacher Education in Turkey**

From the first years of the Republic to the present, various approaches and models have been used in teacher education in our country and significant progress has been made. In order to train qualified teachers, firstly, knowledge transfer was emphasized and as a result, teachers who knew everything were trained. Then, because teachers were asked to be models in all subjects, an exemplary teacher was raised. Afterward, it was foreseen that the duration of education should be extended, and the professional teaching knowledge courses were increased, and importance was given to training specialist teachers. It has been ensured that schoolteachers at all levels are educated in a balanced way in terms of general culture, pedagogical content knowledge and professional teaching knowledge. In the constructivist approach, which is today's approach, emphasis is placed on teaching skills and the necessary skills for teachers are determined. The simultaneous and sequential model is used as a teacher training model. Although teacher education is increasingly geared toward knowledge and skill, it is seen that the teaching profession is not at the desired level. If we look at the current problems of teacher education in Turkey, we can see that they consist of problems such as the selection of teacher candidates, the quality of education faculties, the inadequacy of teaching staff, the lack of practicality in the teacher education program, the inability to teach the methods and techniques that appeal to today's children, the proficiency of teacher candidates.

One of the most important steps of teacher education, which is a very comprehensive and multidimensional subject, can be envisaged as the selection of teacher candidates. Depending on the current conditions in Turkey, teacher candidates are selected with a multiple-choice exam that can be measured quantitatively in one or more aspects. This situation, in fact, is a fundamental problem and teacher candidates should be selected from among individuals who have the skills and competencies required by the profession with a more qualitative attitude. First of all, whether individuals *have a desire to be a teacher* should be determined through face-to-face interviews. Since the teaching profession is a profession that requires love and devotion and is directly related to human life and the future of society, it should be ensured that individuals who really want to do this profession and who have the characteristics and capacity to do so should be selected. Particular attention should be paid to the skills required by the fields in the process of determining teacher candidates. For example, teacher candidates who are talented and can communicate easily, especially in music and physical education, should be selected for the classroom teaching program.

The institutions that train teachers in Turkey are the faculties of education affiliated with universities. Some of the education faculties, which have a total of 93, are located in newly established universities and the lack of human resources has become one of the most important problems of these faculties. Academics working in new universities can also be considered to be few in numbers and often younger and academically inexperienced. In this case, it can be foreseen that teacher candidates who are trained in educational faculties with more adequate human resources potential may be better equipped (Sisman, 2009). In faculties that do not have the necessary infrastructure and equipment, pre-service teachers who are studying are growing up far from some technological innovations and constantly feel this lack when they become teachers. In addition, the two-year training given under the name of Pedagogical Formation Education Certificate Program for the training of teachers has been continuing since 2009-2010 for undergraduate students who have graduated from or are continuing their education from the Faculty of Science, Faculty of Literature and Science and Faculty of Literature and Faculty of Theology other than Faculty of Education. Considering that there are thousands of teachers waiting for appointment every year in our country, it is seen that the quantitative problem has been overcome, but the qualitative problem has not yet been overcome. The right to be appointed by formation from different faculties other than the faculty of education reduces the value of the graduates of the faculty of education.

One of the important variables affecting the quality of the teacher education process is the quality of the teaching staff. The shortage of faculty members in education faculties was often tried to be closed with academicians specializing in different fields (Sisman, 2009). In addition, since there is too much concentration on academic studies in some programs, our academicians draw the image of theorists who are foreign to the national education system, disconnected from the school and classroom, which are the practice environments (Sisman, 2009; Türer, 2006). The stronger the teaching staff in a faculty, the more successful the functioning of the teacher education program will be. In our country, the most important problem that has made its presence felt continuously since the establishment of Faculty of Education has been the lack of teaching staff. According to Student Selection and Placement Center's data for the 2008–2009 academic year, while the number of students per instructor in many faculties is around 20, this rate is around 32 in Faculty of Education (Özoğlu, 2010). In addition, more than half of the teaching staff in Faculty of Education are lecturers. Therefore, when the number of students per faculty member who has made an academic career is considered, a serious difference is observed between the Faculty of Education and other faculties. For this reason, as in many countries, various searches are witnessed in Turkey about what qualifications the instructors to be assigned in teacher training programs should have and how they can gain these qualifications through a training process.

A teacher education program that includes the knowledge, skills and values that teacher candidates need to learn, in other words, a teacher education "curriculum" specific to Turkey but at international standards should be implemented. The teacher education curriculum consists of "general culture," "pedagogical content education," and "professional teaching education." These can be mentioned in three subsections within the heading of "professional teaching education," teaching methods, individual and social foundations of education and teaching practice. The existence of a teacher education program in Turkey, where teaching practices are extremely limited, creates some obstacles in training teachers with the desired qualifications. In teacher trainings, where theoretical knowledge is taught, it is seen that the application is not emphasized, and effective guidance is not offered to teachers who are just starting out in the profession. During this period, when digital technology is widely used and this technology leads to all aspects of life and the functioning of everyday life, the task of teaching and teaching students the beneficial use of technology falls on the teachers of the future. Especially in this regard, Mishra and Koehler (2006), mentioning the importance of teachers' ability to integrate technology with teaching, have suggested a new conceptual framework by adding "technology" to Shulman's "pedagogical content knowledge" formula, and called it "technological pedagogical content knowledge (TPACK)." The absence of courses specific to this field in the teacher education curriculum prevents pre-service teachers from having sufficient and necessary equipment, especially in terms of effective use of technological tools. It would be more appropriate to use different methods and techniques for the learning of the Z generation, also called "Digital Natives" (Presnky, 2001), to be permanent (Altunbay & Biçak, 2018; Çetin & Karalar, 2016; Öz, 2015). This understanding should be at the core of the methods that are planned to be implemented and taught in teacher education programs.

In order to teach the curricula consisting of "general culture," "pedagogical" and "profession" education to the teacher candidates in the best way, it should be ensured that the "constructivist" and "by doing" learning methods are put into practice in real educational environments. Eraslan's (2009) research revealed that pre-service teachers have difficulty in associating the basic field (mathematics) courses they take at university with the school mathematics they will teach in primary education. The importance of courses such as school experience, teaching practice and the teaching profession is increasing tremendously. It is thought that this problem will disappear when the teachers do the application of the pedagogical courses in which they receive their theoretical knowledge at the same time.

In order to transition to the teaching profession in Turkey after four years of teacher education, teacher candidates should pass the National Public Personnel Selection Examination and be successful. Afterward, the candidates are interviewed by officials from the MoNE and evaluated on issues such as expressing themselves effectively, comprehending and explaining a subject, and communication skills. In the last ten years, more teachers have been trained than the number of teachers needed, and most of these teachers are mostly unemployed or turn to another job

(Şahin, 2011). The fact that the number of graduates is high and the conditions for appointment are through a central examination and interview highlight unqualified staffing in our country. As a result, instead of trying to solve the teacher education problem with temporary practices, it should be handled with a more holistic and systematic approach, considering the general problems of national education and the socioeconomic structure of the country, and a solution should be produced in this direction.

### **Conclusion: A Recommendable Teacher Education Model** for Turkey

In this section, a teacher education model, which is deemed necessary to be implemented in Turkey, has been developed by addressing the current problems of teacher education. While developing the model, two main problems have been emphasized. These; (1) How should an ideal teacher be for Turkey? How do we define and qualify this teacher? (2) How can a teacher education system be developed that will train the ideal teacher for Turkey? For the first problem, it is necessary to characterize the characteristics of the ideal teacher in terms of personal and professional characteristics. Personal characteristics can be described as a person who is open to change and innovation, has good human relations, is patient, tolerant, curious, fair, determined, self-sacrificing, smiling, and takes part in the solution of problems. On the other hand, professional characteristics can be expressed as establishing bonds with students, valuing them, having sufficient pedagogical knowledge, valuing their profession, sensitive to individual differences among students, guiding their students and knowing their own rights and responsibilities. For the second problem, a teacher education program has been developed that trains the ideal teacher. Six basic dimensions have been determined and explained for the proposed teacher education program. These are:

- 1. *Pre-service teacher dimension*:Care should be taken to ensure that individuals who will receive teacher training consist of individuals with qualitative rather than quantitative characteristics. For this reason, it is necessary to check whether the individual has *the desire to be a teacher* or not through face-to-face interviews. Teacher candidates should be individuals who put the student in the center, have a developed sense of social role, are leaders, researchers, professional, peaceful, have language command and the ability to express themselves correctly and effectively, love their profession and children, and have a psychologically healthy personality.
- 2. *Faculty dimension*:Faculties of Education, where teacher education takes place, should be able to develop original and innovative practices in teacher training, and should be institutions that train wise and contemporary teachers who know Turkey's national goals, live Turkish culture, believe in democracy, have environmental awareness. Teacher training should be under the responsibility of

education faculties only, graduates of other faculties should not be allowed to receive education with pedagogical formation and become teachers, and this practice, which is still being implemented, should be stopped as soon as possible.

- 3. *Instructor dimension*:Instructors working in teacher education programs should carry out both the academician identity and the teacher identity together. In addition to giving lectures, there should be someone who advises teacher candidates, guides prospective teachers who go into practice, conducts weekly seminars on practices, discusses and analyzes these seminars with teacher candidates. In addition, teacher education programs should have experts on subjects such as the conceptual framework of the relevant field and teaching methods. Teachers should be taken to select dedicated lecturers who believe in the vision and mission of teacher education programs.
- 4. *Curriculum dimension*:In terms of education curriculum, there is a need for a school-based and non-formal model that learns from innovative practices, uses interactive methods, and activates peer coaching. The content of general culture, field knowledge and vocational education courses should be arranged in such a way as to provide pre-service teachers with knowledge, skills, values, and behaviors.
- 5. Implementation dimension: It is necessary to ensure that teacher candidates participate in the learning process of general culture, field knowledge and vocational education courses in the curriculum and learn by doing and living in real environments. The real educational environment in teacher education should be schools. Pre-service teachers should learn the teaching profession by making observations and research in real environments, working as a teacher's assistant and gaining teaching experience.
- 6. *Competence dimension: In the* proficiency dimension of the pre-service teacher, the subject knowledge of the education should be checked, and the proficiency level should be highlighted. Scientists working on teacher education in Turkey should put forward competency-based practices on teacher selection processes and seek a solution to this problem in cooperation with the necessary units. Appropriate environments and tools should be developed in which the expected characteristics of teacher candidates can be revealed. For this application, special talent exams can be taken as an example to select students who can be successful in fine arts faculties. The six basic dimensions suggested for the teacher training program are explained in Fig. 27.2.

The main idea of the model presented here is that in producing teacher education models that respond to the era, our own approaches, processes and experiences in Turkey should be guiding, not imported models. In addition to being suitable for us, models that meet or even exceed the requirements of the age have to respond to our country's own needs in the light of scientific data. Our education system should be based on an approach that aims to eliminate social class lines within a central system, rather than a protective approach in terms of education philosophy and policies, especially in our Republican history. It is to train knowledgeable, resourceful, and



virtuous teachers who will shed light on raising a generation that will raise Turkey above the level of contemporary civilization, who will be taken as an example, who will be a model for the youth of the information age.

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# Part V Teacher Professional Development

## Chapter 28 In-service Teacher Empowerment in Palestine: Teacher Training or Professional Development Programmes?



#### Silvia Nassar

**Abstract** With the daunting changes in today's societies, the educational sector has been highly challenged and expected to quickly adapt while maintaining high standards of education. The educational sector can be supported by empowering teachers, raising their awareness, and equipping them with the appropriate tools, skills, and knowledge. Teachers' perception of their role as constructive participants in the process of developing professionally will impact learners' outcome. In a changing and a challenging society like in Palestine, there is a need to raise the quality of education. Despite the various attempts to enhance the quality of education by the Ministry of Education (MoE), the education system in Palestine continues to suffer, exacerbated by political, social, and economic factors. Many in-service teachers have been participating in teacher training programmes that are classified as professional development programmes without having a clear distinction between the two. Do teachers realise the importance and impact of teacher training and professional development programmes? Is the confusion due to lack of knowledge or lack of adequate assessment and evaluation tools? This chapter will elaborate on the differences between these two types of programmes and on recommendations that might empower in-service teachers so that they bolster their teaching.

**Keywords** Professional development · Palestine · Teacher education · In-service · Public schools

#### Introduction

Teachers are the most valuable asset in any education institution. There is a growing research consensus that enhancing the learners' outcome and the quality of the whole education system is dependant on improving the quality of teachers (Bayar, 2014; Briggs & Walter, 2012; Burke et al., 2020; Dajani, 2015; Nordstrum, 2016; Rice, 2003; Sahlberg, 2015; UNRWA, 2021). To ensure quality learners' outcomes,

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teachers' qualities have to be supported and upgraded. Teachers need constant renovation of knowledge and skills, adequate tools of reflection, and continuous feedback in order to thrive and promote growth in their profession (Khaldi & Nassar, 2021). To stay inspired, interested in teaching, and erudite with the recent trends in teaching, teachers ought to engage in appropriate activities. When teachers take part in the proper professional development (PD) and teacher training programmes, their knowledge about the pedagogical skills and educational instruments will increase. Thus, they will become more effective and efficient in their profession.

Sahlberg (2015) stated that there has been a universal demand to upgrade the education system. To ensure a successful reform of education, there have to be plans for the investment of teacher education in the first place (Burke et al., 2020). The responsible parties need to provide support and guidance to teachers. They need to offer properly planned PD and teacher training programmes with clear objectives to guarantee successful delivery and positive and sustained impact.

The Palestinian education system has emerged amid chaos, intense restrictions, ongoing crises, emergencies, and very limited resources. Palestinians took over their education in 1994 (Jabareen, 2003; Matar, 2017). There was an urge to reform education and shape policies in Palestine. Nonetheless, reform of education and policies needed structure, knowledge, national philosophy, vision, insight, and access to resources, all of which were limited due to political reasons (Dajani & Mclaughlin, 2009). A major objective in education rectification was enhancing teachers' skills and knowledge, which has been challenging due to many factors. Teachers in Palestine deal with tremendous challenges and hurdles due to their overloaded schedules, minimal support and guidance, underpayment, lack of planning time, and other restrictions imposed by the MoE (Khaldi & Wahbeh, 2000; Wahbeh, 2011; Shraim & Cromptom, 2020). Additionally, many teachers are inadequately trained, have large class sizes, and limited resources. Teachers undergo these hardships exacerbated by having to teach under exceptional circumstances due to occupation which negatively impacts the economic, cultural, and political sectors surrounding them (Dajani, 2015). Despite the plans and attempts that were set to develop teachers in Palestine by the Ministry of Education (MoE), the education system still struggles and teacher professional development and training programmes remain a serious issue in Palestine (Dajani, 2015, World Bank, 2019).

This chapter provides description and analysis of the evolution as well as the current situation of the teacher education programmes that take place for in-service teachers at the public schools' sector in Palestine. It also pinpoints the main differences between the teacher training and professional development programmes for in-service teachers. Additionally, this chapter suggests recommendations for practical implications to policy-makers and administrators to properly develop teacher education programmes and empower in-service teachers in their profession.

### Contextual Background

#### History of Education in Palestine

In Palestine, education and forming educational policies have been challenging due to many factors such as political, economic, social, and cultural. Palestinians assumed ownership of their own education only in 1994. ssss Historically, Palestine had been under the foreign rule of the Ottoman Empire for around 400 years since 1517. After that, the British Mandate took over in 1917 until the Israeli occupation that started in 1948 (Abu-Saad & Champagne, 2006). Palestine is still under Israeli military occupation. In 1993, the Palestinian National Authority was established after the signing of the Oslo accords between the Palestinian and Israeli sides (Jabareen, 2003; Mazawi, 2000). In 1994, the Ministry of Education and Higher Education (MoEHE) was established followed by the Ministry of Higher Education and Scientific Research in 1996 (MoEHE, 2021a, 2021b, 2021c). In 2002, the two ministries were merged under the Ministry of Education and Higher Education. Since then, the two ministries were separated and then merged a few times the last time being in 2019, when the two ministries were separated again. The MoEHE remains responsible for education at higher institutions. The MoE seeks in its mission to provide education for all and to improve the quality of education at all levels (MoEHE, 2021a, 2021b, 2021c).

Once formed, the MoE was overburdened with massive responsibilities to rectify education in an occupied land. The MoE was not able to operate at full capacity as it was performing under critical circumstances due to the occupation and its restrictions that impacted all aspects of the Palestinians' lives (European Training Foundation, 2019). There were major and serious obstacles in the way of reforming education in Palestine. These barriers included being a lower middle-income country, being under a military occupation, and going through an increased growth in the population which adversely affected the social and economic services (European Training Foundation, 2019). Additionally, being under years of foreign control and decades of occupation resulted in Palestinians being ill-equipped to reconstruct education (Ramahi, 2015).

#### The Education School System in Palestine

The education school system in Palestine is divided into three sectors, the public, the private, and the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) schools. UNRWA has been providing education mainly to Palestinian refugees for about fifty years (MoEHE, 2016). These three sectors are supervised by the MoE, while the public sector is directly managed by the MoE (European Training Foundation, 2019). As of the school year 2019–2020, and according to the Palestinian Central Bureau of Statistics (PCBS), the number of schools in Palestine (West Bank and Gaza Strip) was around 3074 schools with about 1,309,165 students and 58,470 teachers (PCBS, 2021). Of the 3074 schools, there were about 400

schools in the private sector (PIPA, 2021), and 374 were UNRWA schools (UNRWA, 2020). These statistics demonstrate that the public schools sector in Palestine is the largest, comprising about 75% of schools (PCBS, 2021).

Education in Palestine is centralised. The curriculum, the subjects, the textbooks, the teachers' recruitment, upgrading and evaluation, and teacher training programmes for in-service teachers are unified for public schools (Matar, 2017). The UNRWA schools use the same centralised national curriculum but differ in their administration and teacher training and development procedures. Private schools have their own teacher selection process, PD, and teacher training programmes that meet their institutional goals (Matar, 2017).

#### **Teacher Education Programmes**

Teacher education programmes have evolved with the surfacing of public schooling in the world (Menter et al., 2016). Teacher education programmes have developed over time and shifted from the traditional style workshops to more engaging opportunities of professional learning in either the form of training or PD (Koeliner & Greenblatt, 2021). According to Menter et al. (2016), teacher education programmes are the programmes that contribute to educational theory, research, and practices that target both pre-service, in-service, and other professional educationalists.

Teacher education programmes have features to ensure their effectiveness (Gould, 2021). These features include that all participants of the education society need to be involved in the planning process of the programmes, tasks should be relevant, sessions need to be adequately spaced, and there has to be integration of theory, practice, feedback, and coaching. Additionally, the sessions need to be varied between formal and informal. Teachers must be at the core of the programmes, recognized for their participation, and given autonomy in studying and developing independently (Gould, 2021).

#### Types of Teacher Education Programmes

Teacher education has three inseparable stages; the initial teacher training or preservice teacher training phase, the induction phase, and the in-service teacher training and professional development phase (UNESCO & International Task Force on Teachers for Education 2030, 2019). The initial or preservice teacher education is the education that teachers undergo through their universities or academic institutions that prepares them to become well-established teachers (Khaldi & Nassar, 2021; Nicolai, 2007). The induction phase of teacher education is the stage of supporting and mentoring newly qualified teachers (UNESCO & International Task Force on Teachers for Education 2030, 2019). The in-service teacher education is any course of study, training, or education that practising teachers go through (Koeliner & Greenblatt, 2021).

# Providers of In-service Teacher Education Programmes in Palestine

In Palestine, in-service teacher education is provided by three main providers. The first provider is the MoE that offers obligatory teacher training and PD programmes to public school teachers at its schools or at the National Institute for Educational Training (NIET) (Nassar, 2019). The NIET was established in 2005, under the supervision of the MoE, through Norwegian funding, to develop the human resources in the educational system, and to support the training department at the MoE (MoEHE, 2012; Nicolai, 2007). The NIET was initially established to provide training for managers and administrators at the MoE; however, a few years later, it was tasked with providing training for in-service teachers as well (Engelbrecht et al., 2015). The NIET aims at raising the capacity of teachers of different grade levels, equipping them with the needed competencies, and developing their pedagogical and technical capabilities through training and continuous rehabilitations (MoEHE, 2021a, 2021b, 2021c; Nicolai, 2007). The NIET provides certificates for in-service teachers through accredited specialised professional diploma programmes that aim to raise the level of teaching, supervision, and leadership in education (AmidEast, 2021a, 2021b; MoEHE, 2021a, 2021b, 2021c).

The MoE provides in-service teacher training at three levels. The first level is a mandatory training for the newly practising teachers that targets the curriculum, its content, teaching methods, and assessments. The second level is developmental workshops to support teachers in tackling learning problems in their learners as well as workshops on innovative application of the curriculum. The third level is the pioneering training workshops that aim to enhance the teachers' pedagogical skills to further improve learners' critical thinking skills (Engelbrecht et al., 2015).

The second provider of in-service teacher education is the UNRWA. UNRWA provides extensive teacher training courses and sessions for teachers working at its schools (MoEHE, 2016). In 2013, UNRWA endorsed a teacher policy to provide teachers with PD opportunities to strengthen the teacher workforce and their supporting systems (UNRWA, 2021). UNRWA's approach in reforming education has been holistic and coherent. UNRWA attempts to divert from the traditional cascade approach that has been mostly employed in Palestine over the past years.

The third provider of in-service teacher training and PD programmes for teachers in Palestine comes from foreign non-governmental organisations (NGOs) that aim at teacher improvement and empowerment (Engelbrecht et al., 2015; Khaldi, 2010).

#### **Evolution of In-service Teacher Education Programmes** in the Public School Sector in Palestine for the Years 1994–2019

Once the MoE was established in 1994, it prioritised its massive duties and started focusing on designing a Palestinian curriculum after all the previously imposed ones. Teachers then were perceived as a means to implement the new curriculum; hence, their commitment and enthusiasm to teaching started deteriorating. Additionally, teachers have lost their social, economic, and political status due to the MoE's firm hierarchy (Wahbeh, 2000). The MoE was so consumed in training the teachers on the new curriculum (Nicolai, 2007) that it overlooked other integral parts of the teaching process. It was not until years later that the MoE started paying attention to the importance of enhancing the quality and development of teachers (Nicolai, 2007). There were no clear guidelines for the development or evaluation of any teacher education programmes during that period of time (Burke et al., 2020). With the absence of an accredited licensing system for teachers, there were no standards or rigid requirements for appointing teachers in the Palestinian schools. Hiring school teachers was not done on the basis that teachers hold a university degree or a professional teaching qualification, so neither was a requirement (Burke et al., 2020).

In 2007, there was an obvious need to have a comprehensive approach for teacher education (Shinn, 2012). The MoE launched a reform plan in 2008 to address the issue of lack of quality of education and development programmes for teachers (Dajani, 2015). A five-year Teacher Education Strategy (TES) project was developed by UNESCO in 2008 to be implemented by the MoE despite the minimal access to resources (Burke et al., 2020; MoEHE, 2008a, 2008b, 2008c). The TES aimed at improving education in Palestine, and one of its objectives was to enhance the continuing PD programmes for teachers. The TES provided critical assessment to the teaching profession in Palestine, which evoked donors and attracted attention to the importance of teacher education in the process of reforming education. Based on the strategy, a report was conducted to assess and measure its success. The report highlighted that the available teacher education programmes in Palestine were outdated, focused mainly on theory, lacked the elements of practical activities, and did not have adequate measurements and assessment tools (Burke et al., 2020; Hashweh, 2011). At that point, teachers seemed to be adopting a teacher-centred pedagogy along with utilising the basic and traditional assessment approaches in their teaching (Shinn, 2012). That approach affected the education system adversely. Accordingly, experts called for the adoption of a framework for in-service teacher training and PD programmes as well as providing adequate training for school principals, trainers, and supervisors (Hashweh, 2011). Moreover, the TES report showed that most of the participating teachers did not have a university degree while teaching, and about half of the participating teachers only had professional teaching qualification (Burke et al., 2020). The MoE took action and required that all teachers need to have both a university degree and a professional teaching qualification. The MoE put plans in action to improve and accredit the teacher education programmes as

well as establish a career structure for teachers (MoEHE, 2019). Throughout these years, the MoE started implementing its plans and establishing a career development structure to encourage and motivate teachers to engage in the provided in-service teacher education programmes (Engelbrecht el al., 2015). Despite the efforts, it was not until the years of 2013–2014 that formal licensing for teachers was established (Dajani, 2015).

Derived from the outcome of the TES project and with funding from the World Bank, a Teacher Education Improvement Project (TEIP) was launched in 2011 as a pilot phase till 2015, and with more funding, it was put in action from 2015 till 2019 (MoEHE, 2019). The TEIP aimed to further develop the teaching profession and the teacher education programmes and enhance the leadership and management skills. The TEIP focused on supporting the PD of in-service school teachers with an emphasis on the underqualified ones (MoEHE, 2019). The TEIP developed a Palestinian Teacher Professional Development Index (PTPDI) as a framework to specify competencies for in-service teachers and to monitor their progress for the period of 2011 till 2019 (MoEHE, 2018). Additionally, the PTPDI was perceived to guide the process of planning for PD programmes for teachers based on their needs. There were some positive impacts reported of the TEIP model but not during the pilot model. Teachers' views changed positively, teaching became more studentfocused, and there was an improvement in in-service teachers' use and applications of new teaching strategies and skills (Burke et al., 2020; World Bank, 2019). Overall results showed improvement in the percentage of teachers who had access to inservice teacher education. Recommendations included involving all stakeholders in a participatory approach to prepare and apply any educational phase to ensure its success. Other recommendations were providing continuous supervision, monitoring of on-sites to assess PD needs, as well as reducing the number of modules offered to in-service teachers (World Bank, 2019).

The TEIP programme focused on primary grade-level teachers. As for the secondary school teachers, a Leadership and Teacher Development programme (LTD), that was developed by AmidEast and MoE, was launched in 2012 (AmidEast, 2021a, 2021b). The LTD programme came as a response to the unsatisfactory previously attended teacher education programmes as reported by teachers (Dajani, 2015). The LTD programme was a comprehensive education reform with an objective of improving the teachers' classroom practices (Dajani, 2015). However, the LTD targeted leadership and principals not only in-service teachers. The LTD project pillared the development of the PD diploma programme that was provided for inservice teachers at the NIET. LTD continued for six years till 2018 and demonstrated some improvement in the teaching and learning practices as well as contributed to decentralisation of decisions-making in the MoE (AmidEast, 2021a, 2021b). Despite the fact that findings demonstrated progression in lesson writings, strategies of teaching, and assessment tools, major elements such as critical reflection were not accounted for in the programme (Qindah, 2019). The programme lacked tools for assessing long-term impact on teachers. Based on the LTD project, there were recommendations to include teachers, their perception, and voices in the process, and conduct longitudinal study of learners' achievements (Cristillo et al., 2016). Recommendations called for more research to be conducted on PD and teacher training programmes and their impact on the education system (Qindah, 2019).

#### The Current Situation of In-service Teacher Education at the Public Schools in Palestine

There seems to be a lack of research about teacher education programmes for inservice teachers in Palestine for the last few years. Part of this gap could be related to the impact of COVID-19 that resulted in announcing a state of emergency in Palestine in March 2020 with a shift to online teaching (Shraim & Cromptom, 2020). COVID-19 caused an disruption of education and subsequently hindered proper delivery of in-service teacher education programmes. The NIET summarised in its 2021 report that it had adapted and adjusted its programmes to be delivered remotely to its teachers during the year of 2020 and part of 2021 due to COVID-19 restrictions (MoEHE, 2021a, 2021b, 2021c). Nonetheless, there was no evidence of any tools used to collect and assess teachers' needs before the programmes, nor was there an evaluation of the outcome of the programmes. So far, the teacher education programmes have often come as a response to the previously reported unsatisfactory ones; however, there seems to be no major impact of the newly provided ones. Teachers are still reporting dissatisfaction and disappointment. Does the problem lie in lack of assessing teachers' needs or lack of proper tools to assess or evaluate the outcome of the programmes or in the approach or the model or in teachers' motivation or in everything altogether?

This section will highlight the current situation of the in-service teacher education programmes thus far based on certain features such as the plan, the methodological model of teacher education, the approach, the outcome, the integration of content, pedagogy and knowledge, and the funding of the programmes.

#### The Plan

The MoE published its Education Sector Strategic Plan for the years 2017 till 2022 based on the Education Development Strategic Plan of the years 2014–2019. In its generic education plan, the MoE set goals that focus on ensuring quality education in all sectors, progressing a student-centred teaching and learning pedagogy and environment, and assigning progress measures to evaluate outcomes and collect feedback (MoEHE, 2017). Although the plan did not target teacher education directly, it attributed the required achievements of the sought changes in education and curriculum to teachers. The MoE called for implementing the TES for all teachers so that the number of qualified in-service teachers based on the TES standards would

increase (MoEHE, 2017). The MoE planned to achieve the set goals by providing professional training, guidance, and incentives for educators under satisfactory work conditions to develop learners' skills and values. To motivate teachers to take part in PD programmes, the MoE planned on linking career development to training programmes (MoEHE, 2017).

#### The Methodological Model

The MoE has been using the cascade model in its teacher education programmes to provide mass training for teachers within a short period of time (Engelbrecht et al., 2015; Nicolai, 2007). Besides the cascade model, the MoE provided training using the cluster approach, which aimed at teachers within a specific school cluster to train together to tackle their distinct local challenges (MoEHE, 2014). Using the cascade model, the MoE selected some supervisors or teacher trainers to attend the training sessions. The supervisors would then disseminate the training to other supervisors who would eventually cascade the training to their teachers (Engelbrecht et al., 2015; MoEHE, 2008a, 2008b, 2008c; Nicolai, 2007). The supervisors and teacher trainers delivered the material based on their own understanding and perspective of the training they received. Although the cascade model has been widely used and for a long period of time, it was not favoured by teachers as they reported it was of a poor quality (Nicolai, 2007). Another issue that surfaced in this model of training was that there were not enough teacher trainers. The MoE was looking for teachers to train other teachers but could not find the required skills in any teachers to deliver the training to others (Nicolai, 2007). Therefore, there was no guarantee that a quality training was delivered. Additionally, teachers reported that there was minimal application of what has been learned in the sessions of the cascade model in the classroom (MoEHE, 2014). Teachers stated that trainers' characteristics and relevance of material are of high importance when it comes to this kind of training to ensure its success (Nassar, 2019). Despite the fact that the cascade model provided less work on behalf of the MoE, many of the teacher trainers and supervisors stated that there was a lack of support from the MoE since they were expected to design their own training to disseminate to their teachers (Khaldi & Nassar, 2021). The cascade model still showed its weaknesses; however, the MoE has been using it because it can provide training to a large number of teachers in a short period of time (Nassar, 2019; Nicolai, 2007). The cascade model resulted in segmented in-service teacher trainings, and thus, the Palestinian education system has suffered from the fragmented approach in training and the methodological cascade model of training (Engelbrecht el al., 2015; Nicolai, 2007).

#### The Approach

The NIET, under the supervision of the MoE, has been providing mandatory inservice teacher education programmes to public school teachers with the aim to provide the education to as many teachers as possible in their different subject knowledge. In its 2021 plan, the NIET stressed the importance of investing in teachers and supporting their development, and to qualify as many teachers as possible to raise the percentage of the population of the qualified teachers (MoEHE, 2021a, 2021b, 2021c). The programmes offered at NIET are usually not tailored to individual teachers' needs or interests (Nassar, 2019). Teachers have reported that they were not given the option to participate in any step of developing the teacher education programmes, rather they were just asked to attend certain sessions on given dates on prespecified topics (Nassar, 2019). Attending teacher education programmes did not come from within the teachers nor were they motivated to develop professionally in the form that best suited them. The top-down approach of the MoE has demotivated teachers in their desire to develop professionally. Teachers did not see the value behind teacher education programmes. Teachers still reported their dissatisfaction from the obligatory and irrelevant programmes provided by the MoE (Bianchi & Hussein-Abdel Razeq, 2017; Dajani, 2015; Nassar, 2019; Wahbeh, 2011).

#### The Outcome

In spite of the improvements in some aspects of teaching, there are still many challenges throughout the offered programmes in Palestine. Some of these challenges are teacher demotivation, teacher resistance to changes and utilising technology, and lack of their satisfaction, enthusiasm and commitment to the training and development programmes (Bianchi & Hussein-Abdel Razeq, 2017; Burke et al., 2020; Nassar, 2019). The MoE has been centralised in its decision-making; teachers did not have any impact on the direction of education nor involvement in the process of delivering the teacher education programmes (Shinn, 2012). The outcome of the programmes did not have any long-term impact on the learning process. There is no evidence of actual implementation of the newly acquired skills and knowledge and thus lack of evidence of change in the classrooms. Sustainability and tools of maintaining positive and long-term impact of such programmes have been a major concern. The top-down management culture approach, the centralised approach of the MoE, and the fragmented nature of in-service teacher training have caused shortcomings in the field of adequately providing the appropriate teacher education programmes for in-service teachers, and thus, it has been challenging to assess the effectiveness of the programmes offered (Engelbrecht et al., 2015). Teacher education programmes remain ineffective and inefficient in enhancing teachers' knowledge and skills. Consequently, the learning and teaching process is not moving forward as planned, and the Palestinian education system is still in agony.

#### Pedagogy, Content, and Knowledge (PCK)

Most of the in-service teacher education programmes in Palestine were based on theory. Many teachers underwent very little practical training in teaching and thus did not have the chance to apply their knowledge (Nassar, 2019; World Bank, 2019). Many teachers have reported that there was a lack of practical activities in the programmes and that they were not contextualised (Nassar, 2019). The programmes offered at NIET targeted teachers according to their grade level regardless of the subjects they were teaching. These programmes were usually standardised and generic. Teacher education programmes have mostly been administered in a traditional way in Palestine (Burke et al., 2020). They either focused on theory or focused on subject and lacked practical elements. A combination of knowledge in the subject content, theories of teaching, and pedagogy would need to be designed in the teacher education programmes to ensure coherence and connection to real-life context (Burke et al., 2020).

#### Funding

The MoE has been mostly partnering with foreign NGOs and importing programmes that target teacher PD (Ramahi, 2019). UNESCO has a major role in the teacher development in Palestine (Shinn, 2012; UNESCO, 2021). Additionally, World Bank, USAID, British Council, and countries like Germany, Finland, UK, and Norway have provided funding and training to the Palestinian education sector (Engelbrecht et al., 2015). The Palestinian Authority became aid dependent on the foreign institutions and thus on the foreign powers (Ramahi, 2019; Shinn, 2012). The approach of importing foreign programmes has contributed to infusing external values and promoting foreign powers, which resulted in obstructing the process of designing and developing of any local reform programmes (Ramahi, 2019). The MoE's dependence on foreign programmes that were not relevant or suitable to the Palestinian context was criticized by many members of the education society (Ramahi, 2015). Nonetheless, obtaining funding for educational activities is still a challenge for the MoE (MoEHE, 2017). Therefore, there seems to be a need to invest in local qualifications from teachers and teacher trainers to initiate local designing of teacher education programmes that suit the Palestinian context, needs, and interests.

To conclude, despite the tremendous efforts and intensive work the MoE has put into enhancing the education system and teacher development over the past two decades, achievements have been minimal. The teacher education programmes are still reported to have minimal impact on teachers' development. The MoE has not been successful in establishing proper, holistic, and coherent programmes. Although the MoE does not have an option but to rely on NGOs to develop its teachers, locally based agendas of reforming education in Palestine could still be developed. Transforming all the previous challenges into opportunities of learning and working towards planning coherent and well-integrated teacher education programmes is a vision that is worth striving for.

#### In-service Teacher Education Programmes: Teacher Training or Professional Development Programmes?

There has been some language association in the field of in-service teacher training with the term professional development (Koeliner & Greenblatt, 2021), and thus, some training programmes may be classified as PD programmes and vice versa. However, there are various features for both types of the programmes that distinguish them from one another. In-service teacher training is a main element of the professional development of teachers that aims at equipping teachers with skills to upgrade the quality of education (Nzarirwehi & Atuhumuze, 2019). PD, on the other hand, is a continuous recurring process that is influenced and prompted by changes in knowledge, beliefs, and attitudes of teachers to improve the learning outcomes (Cooper, 2004; Sparks & Richardson, 1998 as cited in Nzarirwehi & Atuhumuze, 2019). This section will highlight the main differences between the two types of programmes.

#### **In-service Teacher Training Programmes**

According to UNESCO and International Task Force on Teachers for Education 2030, (2019), in-service teacher training is the process that employed teachers go through to refresh and reform their professional knowledge and skills. In-service teacher training is a short-term training that is targeted at practising teachers and professionals with the aim of acquiring new knowledge, methods, and strategies to improve their skills effectively and to fill any gap of professional inadequacy (Amadi, 2013; Osamwonyi, 2016). Teacher training programmes usually have the objective of solving or meeting an immediate need in a short period of time. These training or education modules can include refresher sessions or teaching workshops and thus may differ between primary and secondary school teachers (Singh, 2017). In-service teacher training usually aims for teachers to acquire new knowledge about changes to school curricula and the instructional skills required to implement a modified curriculum or new concepts (Omar, 2014). These trainings can also provide teachers with new teaching materials, new curricula, and new innovations that support them in their work to increase their level of professional knowledge (Nzarirwehi & Atuhumuze, 2019; Safi, 2014). Effective in-service teacher training programmes aim at capacity building of teachers and foster teacher professionalism and development. They also develop competency in teachers within a formal process. However, there is not enough evidence that demonstrates how the new knowledge of the teacher transfers to the learners. These programmes can take many forms such as lectures, conferences, seminars, and workshops (Amadi, 2013; Nzarirwehi & Atuhumuze, 2019), and they are usually administered in groups. The training programmes need an expert to deliver the training, and they are often standardised with preset tools and guidelines to follow throughout the activities.

In-service teacher training is often compulsory for teachers to attend. It is essential for teachers to tackle the new changes in their profession by attending relevant training sessions to acquire the new understanding of the changes in the teaching and learning process (Omar, 2014). In-service teacher training is imperative to aid teachers to perform effectively and efficiently by obtaining new skills, learning to use certain tools and strategies, and updating their methodologies in their teaching practices (Osamwonyi, 2016). The major objective in in-service teacher training is to inspire and encourage teachers to self-evaluate their strengths and weaknesses as well as their knowledge and pedagogical skills (Nzarirwehi & Atuhumuze, 2019). To promote growth in the academic qualifications, performance, and PD of teachers, the teacher training programmes have to be well planned, inclusive of resources and incentives, appropriately applied, and constantly evaluated (Nzarirwehi & Atuhumuze, 2019). An imperative factor in teacher training programmes is that they have to be available for all school teachers (Safi, 2014) so that all teachers learn whatever new skills, strategies, or knowledge there is to capture. In-service teacher training can have an impact on the PD of teachers (Nzarirwehi & Atuhumuze, 2019).

#### In-service Professional Development Programmes

Villegas-Reimers (2003) defined PD for teachers as the professional growth that teachers attain due to their increased experience in teaching, and to their constant and systematic examination of their teaching. Teachers grow and develop throughout the act of practising their teaching and reflecting on their own practices. According to the Organisation for Economic Co-operation and Development (OECD), (2009) PD for teachers consists of a series of learning engagements that are focused on developing an individual's skills, knowledge, experience, and qualities as a teacher. These activities need to be learner focused to result in promoting learner outcome and achieve development. Diaz-Maggioli (2020) stated that PD has to be continuous. Conversely, according to Quirke (2020), PD is a lifelong learning journey that teachers experience in which they develop their skills, knowledge, and practices so that they perform to best serve their learners.

PD programmes focus on achieving long-term impact of attainment of skills and knowledge for both personal and professional development in teachers using a variety of learning opportunities (Amadi, 2013). In order to ensure teachers' quality and progression of their teaching practices, teachers need to constantly develop their knowledge and skills and have the opportunity to use and apply what they learn in the classroom. PD programmes are usually intensive, cooperative and incorporate an evaluation phase throughout them (Amadi, 2013). PD programmes follow a

holistic approach and are usually customised and personalised with a focus on the individuals' needs, rather than on the profession, so that the activities are related to teachers' interests (Bayar, 2014). PD gives the chance for teachers to accept new teaching methods and work with different learning styles that would help with dealing with differentiation of students (Amadi, 2013). The teachers participating in the PD programmes need to show growth and progress in their self-learning process.

PD programmes aim at promoting knowledge and growth in the teachers that will reflect positively on teachers' performance and on the long run on the learners' output. (Bayar, 2014). In order for PD to be effective, it has to cause a change in teachers' practices and learners' outcome through structured learning engagements (Darling-Hammond et al., 2017). PD programmes support teachers in making informed decisions to solve problems more professionally in the classrooms. Teachers need to be given ample time to learn the new strategies, tools, and methods, apply them in the classroom, master them, and integrate them in their practices (Amadi, 2013; Cleaver et al., 2020).

PD programmes need to have certain features to ensure their success. They have to be concentrated on individual teachers' needs, focused on content, engaging for teachers, supportive of collaboration and interaction, incorporating clear and successful models of effective practices, and providing coaching, expert support, feedback, and reflection (Darling-Hammond et al., 2017; Hirsh, 2015). Additionally, Hirsh (2015) advocated the importance of ensuring sustainability of the PD programmes as well as planning the programmes over a certain number of days rather than having them as stand-alone courses. PD can take a variety of formats and approaches (Hueber, 2011). It can be formal or informal. It can also be individual based or within a group. PD programmes can be either traditional or non-traditional. The former includes attending short workshops, sessions, conferences, and lectures, while the latter includes activities such as mentoring, coaching, performance feedback tasks, ongoing collaboration, and peer observation (Bayar, 2014; Cleaver et al., 2020; OECD, 2014). PD can focus in its core on content, curriculum design, lesson planning, pedagogy, practical activities, or a mix of all. To ensure a change in learning occurs and teachers' skills and knowledge progress appropriately, it is crucial for institutions to decide on and find the suitable activities that match a wide number of teachers' needs and interests. It is also recommended that PD programmes of teachers are aligned with their initial education in order to ensure connectivity and coherence (Sahlberg, 2015).

#### The Distinction

There is a difference between teaching teachers on how to do their job and teaching them how to excel at their job by continuously learning how to become more creative, innovative, and become better problem-solvers and critical thinkers. Inservice teacher training teaches practising teachers how to be proficient in their teaching practices, while PD teaches teachers how to excel in their teaching profession. Teachers first learn how to teach and then they move on to developing their knowledge and skills. PD for teachers is what takes place after teacher training has occurred. Teachers need to constantly upgrade their skills and knowledge and promote positive change in the learners' outcome.

PD requires teachers to take an integral part in transforming the knowledge they acquire into the classroom. Teacher PD usually has broader and deeper objectives than teacher training. PD focuses on the philosophical aspects with an emphasis on promoting change and improving skills. These objectives can be adjusted over time to meet the expectations and demands of the education society. Teachers may attend teacher training programmes and comprehend the introduced material; however, they might not apply what they have learned in their classrooms (Safi, 2014). On the other hand, PD takes place when the trained teachers apply the new knowledge or strategies in the classroom and develop their' practices and teaching instructions (Irisconnect, 2020; Safi, 2014).

Sahlberg (2015) referred to professionalism as the core feature of teaching that encourages teachers to utilise and apply the upgraded developments and knowledge in the teaching practices. Teachers learn and get exposed to new materials, knowledge, and skills. Then, they need to develop that new knowledge by attending PD programmes to ensure its application while practising reflection and getting feedback about the practices. The appropriate PD programmes can contribute to enhancing the teachers' quality and thus the quality of education. That can take place by allowing teachers the opportunities to update their skills, knowledge, and practices with the latest pedagogies, methodologies, strategies, educational instruments, and knowledge of content (Khaldi & Nassar, 2021).

# The Distinction of Teacher Education Programmes in Palestine—Where Is the Fine Line?

In Palestine, many of the teacher programmes that are offered to in-service school teachers are mostly identified as PD programmes. On the other hand, the programmes that are offered to pre-service teachers are usually referred to as training programmes. There seems to be a misuse of the linguistic terms when it comes to specifying the programmes offered to in-service teachers' education. The career status of teachers is not the indicator to specify whether the programme is a training or PD, rather, the characteristics and objectives of each.

On a foundational level, what matters is whether each type of the in-service teacher education programmes offered is well defined and distinguished using the proper criteria and characteristics. Therefore, it is crucial for programme designers, policymakers, and educational administrators to identify the objectives based on teachers' needs, the content, the type of activities included, the format of the sessions, the model, and the approach of recruiting teachers to the programmes. Raising teachers' awareness and involving them in the process should increase their motivation and commitment to develop professionally.

#### **Implications and Recommendations About In-service Teacher Education Programmes in Palestine**

The following recommendations and implications for the future are suggested to facilitate the distinction between the two terms. That should contribute to designing and delivering fruitful teacher education programmes that empower teachers and enhance the quality of education in Palestine.

- Raise awareness: Policy-makers, administrators, researchers, and academics have a responsibility in threshing out the terminology used for teacher education programmes as well as the various features and criteria for each type. They need to raise awareness about the differences between teacher training and PD programmes. The distinction has to be clearly communicated to teachers and programme designers as well. That clarity may ease the path in setting the goals of each type of programme ahead of time to comply with the features of each when put into action. In consequence, communicating with teachers about the importance of each type of programme, as well as the objectives, will guide teachers in making informed decisions about which type they need to take part in if given the choice.
- Role of authority in shaping education and society: In order to benefit the education society and ensure it develops and progresses in a healthy and democratic way, and to foster evolving a society of open-minded, compassionate and well-educated individuals, there needs to be a properly exercising authority (Snelgrove, 2019). However, Snelgrove (2019) identifies the distinction between authority and power, from a philosophical point of view, in education to show how they can be utilised properly to promote an empathetic, knowledgeable, and open-minded society. Having said that, the policy-makers and administrators at the MoE can have a positive influence on involving teachers and professionals in the education field and in decision-making to work together to enhance the teacher education.
- Make it research-based: There is a lack of current research about teacher education programmes in Palestine, especially research that involves teachers. There has been a call for having teacher training programmes by conducting action research along with teachers' participation and involvement to develop their practices (Ramahi, 2019; Qindah, 2019). It is imperative to focus on having research-based teacher education (Sahlberg, 2015), which could occur through the in-service teacher PD programmes. Research shows that conducting empirical and scientific research through teacher education may promote effective progress in professionalism in the teaching profession (Sahlberg, 2015). When teachers conduct research, they will work with knowledgeable colleagues, professionals,

and practitioners. while at the same time contribute to decision-making and positive changes in the educational field. It is essential to design the programmes with teachers' involvement and around their needs and interests, while encouraging them to engage in research-based activities to develop their own skills and knowledge and aid in enhancing the quality of the whole education society.

- Focus on quality rather than quantity: Due to the circumstances that the MoE has been operating under, it has been prioritizing quantity over quality when it comes to developing teachers. However, the education system needs more quality teachers in order to rise and operate effectively. No matter how many teachers a student may have, the learner's outcome may not be of high quality or value if teachers are not well-qualified. Instead of trying to provide training or PD to as many teachers as possible, it is worth working on deepening the intended learning outcomes of the programmes in order to have a long-term impact. Giving teachers the space to share their experiences and reflect on their practices will help them move forward in their teaching. Teachers can learn from each other and at the same time empower each other. There are models other than the cascade model that are feasible to adopt and adapt to suit the Palestinian context. At the end of the day, there has to be a model that matches the needs, interests, and cultural aspects of the Palestinian society, while meeting the intended objectives.
- Integrate pedagogy, content, and knowledge (PCK): No matter how many theories in-service teachers learn, learning occurs when these teachers practise real-life teaching and share examples from their experiences (Boud et al., 1993). There has been a development in reforming teacher education programmes to integrate both the subject matter and the pedagogy to link theory and practice in order to shape genuine knowledge and promote teachers' development (Darling-Hammond, 2006; Dewey, 1965; Shulman, 1986). It is essential to integrate pedagogy, curriculum, and content knowledge in any teacher education programme to enhance teachers' motivation and interest, equip them with the latest trends in teaching strategies and methodologies, and promote positive learner outcomes (Rice, 2003; Richards & Farrell, 2005). Teacher education programmes ought to be designed with a goal of shrinking the gap between theories taught and actual teaching practices. It is significant to combine the knowledge of teaching with the knowledge of content and pedagogies so that teachers are knowledgeable in a holistic and coherent way of the art of teaching and of the topic they are expected to teach professionally. Thus, teacher training programmes should allow teachers to put in practice their learning of theories and methodologies and start reflecting on their own learning and practices. Providing the opportunity for teachers to practice a variety of methods and teaching strategies would add to teachers' experience. That would be enhanced when teachers go through a detailed reflective process of their practices.

#### A Controversial Issue: Are Teacher Education Programmes Even Necessary?

Having elaborated on each type of in-service teacher education programme and specified each one's features, criteria, and benefits, the question remains: Are these programmes even necessary? It is imperative for policy-makers, school administrators, and people in the educational authorities to learn deeply about the ways teachers develop and advance in their profession. That will allow them to make wise decisions in terms of investing time, energy, and resources in professional development or teacher education programmes (Timperley et al., 2007). It is equally important to learn about adult learning and how teachers, in this case, would contribute to enhancing student learning and promote learner outcome. For instance, the theory of adult learning of Knowles (1984) distinguishes between the model of pedagogical focus of content and the model of andragogic focus of the process of adult learning (Knowles et al., 2020). This theory assumes that adults mature with their growing supplies of experiences more than any academic or social coercion to learn, and thus adults become oriented to learning because of their developmental tasks (Knowles et al., 2020). Teachers may not be very comfortable feeling challenged about their beliefs, practices, and the way they think the world works (Timperley et al., 2007). It is crucial to keep in mind that teachers' initial understanding about how the world works and their preconceptions need to be accounted for in the process of planning teacher education programmes (Timperley et al., 2007). That ensures that through the process of progressing professionally, teachers grasp new concepts and information while constructing their own learning and monitoring their progress by thinking about their thinking which is referred to by Flavell (1979) as the metacognition theory.

#### Conclusion

The changing needs and expectations of the Palestinian society and the advancement in technology put pressure on teachers to continuously upgrade their skills and knowledge. Teachers in Palestine are unmotivated and uninterested in updating their knowledge or skills professionally due to many reasons, such as the heavy workload, the low salaries, and the underestimation of the impact of the teacher education programmes. On top of that, teachers in Palestine teach under formidable conditions due to the military occupation, lack of resources, and restriction of movement. These factors form many obstacles in the face of the Ministry of Education and its educational strategic planning of any teacher education programmes for in-service teachers. Part of the weaknesses in the teacher education programmes is the lack of proper tools to assess, measure, and evaluate their impact on teachers and learners in an attempt to enhance any future programmes based on concrete feedback and research. There is a need to conduct more research about various teacher education programmes for in-service teachers in Palestine to evaluate them and plan forward based on the collected feedback and assessment. There is also a need to have locally designed teacher education programmes that invest in the knowledge and creativity of local teachers, teacher trainers, programme designers, and decision-makers. Palestinians are the most expert in the Palestinian context, curriculum, educational society, and available resources. They can design, adapt, deliver, and develop the programmes to what suits their needs and interests to foster learning. It is recommended that the programmes are a collaborative work of all parties involved in the process to ensure coherence and cooperation and to raise motivation among teachers.

Although teacher training and professional development programmes differ in their design, objectives, and delivery, they are a continuation for each other. Raising awareness about the specifics of each type is essential to ensure its effectiveness. The appropriate teacher training programmes need to be well planned, taking into consideration all elements and features of each type to properly deliver them to the intended teachers. When properly planned, designed, delivered, assessed, and evaluated, the in-service teacher education programmes can foster growth in the teachers' professionalism and academic qualifications, and thus reflect positively on learners' outcome.

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## Chapter 29 Teacher as a Reflective Practitioner: Nurturing Teacher's Character



Abeer Sultan Ahmed Althaqafi

**Abstract** To have a voice means to be reflexive, and reflexivity is a social scientific variety of self-consciousness (Delamont in Fieldwork in educational settings: methods, Pitfalls and perspectives. Falmer Press, 1992). While reflection is crucial, some may not really know how to get the best from it. According to (Ghaye in Teaching and learning through reflective practice: a practical guide for positive action. Routledge, 2011), reflective practices help us understand the links between what we do and how we might improve our effectiveness. Reflective practices help people to understand the significance of work and provide new insights for developing this work. Reflection helps us understand the connections between feeling, thinking, and doing—how we feel affects how we think—(ibid., 2011). This chapter will try to help teachers to develop their understanding and skills of learning through reflection. It is hoped that this work can help teachers to explore the power and potency of reflecting on strengths and weaknesses, make sense of teaching, and be the best that they can be.

**Keywords** Saudi Arabia · Reflective practice · Professionalism · Curriculum · Adult learning

#### **Humanistic Nature of Teaching**

#### The Art of Teaching

The teacher, like the artist, the philosopher and the man of letters, can only perform his work adequately if he feels himself to be an individual directed by an inner creative impulse, not dominated and fettered by an outside authority. (Bertrand Russell, Unpopular Essays, 1950: 159)

A teacher may be regarded as a person of high ideals and a humanist nature, entrusted with the duty of modifying and shaping the behavior of their students

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(Hussain et al., 2011). Teachers are active, thinking decision-makers who make significant instructional choices and play a significant role in shaping classroom practices (Borg, 2006). Teachers must know the art of communication, understanding others' needs and requirements and their ability to learn from experience (Hussain et al., 2011). Moreover, teaching is itself a very complex and demanding profession. It is a profession, which exalts service above personal gain (Goodings et al., 1995). Recent research in the educational field maintains that teaching is not just a cognitive or technical procedure but a complicated and even elusive personal and social set of embedded interactions and practices that involve the whole person (Britzman, 2003; Olsen, 2008).

Clearly, a significant construct varying greatly among educational institutions, which is systematically associated with student achievement, is the efficacy and attitudes of teachers within that institution or school (Bandura, 1997). According to Smith (1990), teacher personality in the attitude plays an important role in teacher behavior and in turn influences on student achievement. Accordingly, it is of paramount importance for educational research to help teachers, who are considered to be message conveyers of the whole educational process, with tools that could enable them to be better practitioners. This is supported by TALIS, using representative data from 23 countries across the globe, which examined a variety of teachers' beliefs, practices and attitudes, and their relevance to the improvement and effectiveness of schools. This study concluded by asserting the significance of teachers' beliefs and attitudes not only to improvements in educational processes, shaping students' learning environment, and influencing their motivation and achievement, but also to the general well-being of teachers and their strategies for coping with challenge in their professional life, as well as to mediating the effects of job-related politics, such as changes in curricula or professional development programs (OECD, 2009).

Teachers' well-being, professionalism, and engagement in professional development are crucial in improving educational performance (Bangs & Frost, 2012). The quality of teachers, as well as what they do, makes all the difference (OECD, 2011 cited in Bangs & frost, 2012). This view was the main agenda at an international education summit hosted by the US Education Secretary in March 2011. This summit was jointly organized by the US Education Department, the Organisation of Economic Co-operation and Development, and Education International. For the first time, global federation of teacher unions was involved in organizing a conference on the future of the teaching profession with governments (Ibid.). There was a remarkable degree of consensus between teacher unions and governments by the end of this summit on the importance of teacher policies involving the teaching profession in systematic improvements (Bangs, 2011 cited in Bangs & Frost, 2012). However, this conclusion has yet to translate into teachers becoming main agents and the central players in establishing educational policy and shaping practice in their schools (Ibid.).

On the other hand, the question of how teachers can inform policy and practice are related to the way we conceptualize professional development, but mostly noted that the quality of what teachers do can be improved by people other than teachers themselves (Ibid.). From a different angle, Britzman (2003) claims that teachers are born not made, and real learning begins once novices arrive in their classrooms. Some may concur with the first part; however, if teachers are born not made, why would there be the need for more continuous development programs? I think the second part of Britzman's statement contradicts the whole claim, as he asserts that real learning begins once new teachers dip into the field of practice. Thus, teachers are not born; they need to be shaped by degrees, experience, and practice.

In fact, it is essential to acknowledge teaching as "a human effort." However, research has shown that the traditional respect and the old prestigious role enjoyed by teachers within society and inside classrooms have been eroded fundamentally (Awanbor, 1996). Teachers' roles have become more diversified and do not cover only learning and teaching, but also extend to cover school management, administration, as well as guidance and counseling. Consequently, some people lose interest in the teaching profession. Awanbor (1996) reported that some teacher trainees in a College of Education did not express any enthusiasm for the core goal of teaching as they explained that the teaching profession was not really an attractive profession to them. For instance, in Nigeria in 2006, it was revealed that of more than 700,000 candidates processed by the Admission and Matriculation Board for admission into various university courses, only about 10,000 (0.0147%) applied to education (Osunde & Izevbigie, 2006). The same thing applies to Saudi Arabia. For example, in a study conducted by King Saud University, Riyadh, to measure the number of Saudi students enrolling within Teacher Training Colleges, it has been reported that there is a huge demand for more Saudi teachers as the number of Saudi student teachers enrolled within Teacher Training Colleges decreases (Al-Dawood, 2008). This study also reports that the number of Saudi student teachers in 2006 represents only 30% of the overall demand for teachers which resulted in the increase of the employment of non-Saudi teachers. In fact, the status of the teaching profession is affected by social background (Afe, 1999) and teaching practices. It is of paramount importance to point out here that Saudi teachers are caught between the demands and commands of the teaching as a process and its inspection and the needs of students. The role of teachers is sometimes interpreted as "deliverers" of the curriculum, in the sense that they are carrying out the orders that have been imposed by policy-makers. Cullingford (2009) stated that it is an international conclusion, based on research, that the more independence educational institutions and teachers have, and the less interference from outsiders, the better they perform; unfortunately, this is not how it is perceived by most of those who are in control of the educational system in the Saudi context, which could affect teachers' perceptions and attitudes toward teaching.

It could be argued that teachers' personal disposition toward various aspects of their professional life is vital in that it determines their teaching behavior and hence shapes learning outcomes and contributes to their perceptions about what constitutes desired learning and desired teaching (Kumaravadivelu, 2012). In order to prepare for the analysis of teachers' reflective practice, it is essential to explore the nature and definition of reflection, teachers' beliefs, attitudes and values, as well as considering some of their implications on teachers and teaching processes.

#### **Reflective Teaching and Perception**

There are several meanings in the vocabulary of reflection; these include reflection, reflective learning or practice, and reflective writing (Moon, 2004). My focus is on reflective teaching or practice, as this is one of the main generated themes in this chapter. Firstly, the exploration of reflective teaching was discussed by John Dewey in the early 1900s, who was an educational philosopher and the first American theorists to view teachers as reflective practitioners and the ones who play very active roles in educational development and reform (Zeichner & Liston, 1996). Building on the work of Dewey, Donald Schön has also written widely about reflective practice highlighting its uses in some fields, such as architecture and medicine (Ibid.). "Reflective Practitioner" in 1983, and it refers to the capacity and ability to reflect on action so as to engage in a process of continuous learning (Schön, 1983). It should be noted that the words reflection and reflective practice are used interchangeably in this chapter.

In one of Dewey's books: *How We Think* (1933), Dewey makes a distinction between action that is routine and action that is reflective (Zeichner & Liston, 1996). He defines routine action as action that is guided by impulse, tradition, and authority, whereas reflective action is a process which involves active, constant, and careful consideration of any belief or practice in light of the reasons that support it and the consequences to which it leads. It is a process, unlike routine action, that involves intuition, emotion, and reason (Ibid.). According to Dewey (1933), the continuity of routine action with the absence of reflection makes a teacher lose sight of the fact that their everyday reality is one of many alternatives, besides losing purpose and goals toward which they are working and becoming just others' agents.

For Dewey, there are three attitudes that are integrated into reflective action, and they could be regarded as three preconditions for a person to be reflective (Fig. 29.1).



According to Dewey (1933), open-mindedness is the active desire to give full attention to alternative possibilities. Dewey's concept of open-mindedness can be compared to the conceptions of beliefs and believers by the sociologist Wright Mills (Zeichner & Liston, 1996). Mills argues that there are three types of believers:

- (a) Vulgar: believers who are not interested in listening to opposing arguments or in analyzing their own beliefs and operate only according to stereotypes.
- (b) Sophisticated: believers who are still not open to the potentiality that their own belief system might be flawed.
- (c) Critical: believers who are willing to oppose points of view due to their belief systems have weakness/flaws and can be strengthened by confrontation with different beliefs.

It should be noted that Dewey's conception of open-mindedness is associated with Mills' understanding of critical believers; open-mindedness accepts the distinct ways of viewing pupils, learning, and schooling. An open-minded teacher does not hold one perspective instead he/she listens and accepts the strength and limitations of their own and others' perspectives (Ibid.). This can be contrasted with responsibility which is the careful consideration of the consequences to which an action leads. Dewey reports that this attitude of responsibility involves the thinking about at least three types of consequences of one's teaching:

- Personal consequences: the effects of teaching practice on student selfconcepts;
- (b) Academic consequences: the effects of teaching practice on students' intellectual development;
- (c) Social and political consequences: the anticipated effects of one's teaching on the life chances of various students.

According to Dewey, responsibility for reflection involves examinations of these issues and more unexpected outcomes. On the other hand, wholeheartedness is perceived by Dewey as the third precondition for reflection. By wholeheartedness he meant the possession of both open-mindedness and responsibility as central components in a professional life. Wholehearted teachers are always striving to understand their own teaching and the way in which it impacts their students. Overall, Dewey meant to say that teachers who are open-minded, responsible, and wholehearted are continually asking themselves what they are doing, why they are doing it, examining rationales, whether the results good, for whom and in what ways, and taking the pain seeking out conflicting evidence not merely seeking, to meet their objectives (Zeichner & Liston, 1996). By possession of these three attitudes with other skills of inquiry, such as observation and analysis, a teacher would be helped to be reflective (Dewey, 1933).

Furthermore, reflection can be seen in two time frames:

(1) **Reflection-on-action**: reflection that occurs before or after an action or a lesson (when we plan for our lesson and after instruction when we consider what occurred).

(2) Reflection-in-action: reflection that occurs during the action or lesson (reflective conversations with students while instructing and trying to solve problems on the spot) (Schön, 1983). "We do carry out actions, understandings and reflection spontaneously, we are often unaware of having learned these things, we simply find ourselves doing them, but we are usually unable to express this knowing in action (Ibid.)." In order to be reflective, one needs to be conscious of this tacit knowledge and understanding, surface and articulate them and then subject them to critique (Schön, 1983; Elliot, 1991). According to Schön, reflective practitioners must be helped to reflect both "in" and "on" action. However, a separation between theory and practice needs to be overcome, and most believed that theories are generated mainly in research and universities, and that only practice exists in schools (Zeichner & Liston, 1996).

Although the conceptions of reflective action provided by both Dewey and Schön were acknowledged and advocated by theorists, they have received some criticism. For example, the expectations brought by Dewey's concept of teachers as reflective practitioners were viewed as idealized and divorced from the complex reality of teachers' work (Zeichner & Liston, 1996). It seems that Dewey ignored the unpredictable environment of classrooms, including the complexity of teachers' work, lack of time, resources, and pressure to cover a required and broadly defined curriculum (Ibid.). Nevertheless, proponents argue that what Dewey was aiming at is the balance between reflection and routine, between thought and action, between the arrogance that blindly rejects what is commonly accepted as truth, and the servility that blindly receives this truth (Ibid.). In addition, the criticism was also directed to Schön around his focus on teaching practices at the individual level without sufficient attention to social conditions, focusing teachers' attention only inwardly on their own practice regardless of external social aspects of their practice (Ibid.). Critics argue that teachers should be encouraged both to reflect internally and externally, as plans for change should involve improvement of both individual practice and their social situations (Ibid.).

To sum up, reflection means thinking, and in turn thinking involves perception. While teachers engage in reflecting upon their own practices, they are also engaged in a process of self-awareness, examining their own perceptions. The purpose of bringing out the consideration of reflective teaching or teachers as reflective practitioners is to help teachers to make cognitive processes during the practice of teaching as transparent as possible and to provide a pointed and defensible view of reflective teaching that could enhance the conception of reflection in schools and institutions.

#### **Teacher as a Reflective Practitioner**

Reflection is a social scientific variety of self-consciousness (Delamont, 1992), it is important, and some might acknowledge that they do not really know how to get the best from it. According to Ghaye (2011), reflection or reflective practices
help us understand the links between what we do and how we might improve our effectiveness. Reflective practices help people to understand the significance of work and provide new insights for developing this work. They also help us understand the links between feeling, thinking, and doing, how we feel affects how we think, (Ibid.). According to Hayes (2011), teachers should be seen as reflective learners, arguing that teachers must be self-reflective, understanding that their development occurs over the course of their careers. He describes teachers as reflective learners as follows:

- They integrate ideas, concepts, and theories from fieldwork, teaching experience, and professional development into their work;
- They act and adapt a personal philosophy of teaching and learning that is consistent with current theories and ethical and legal standards of their profession;
- They reflect on positioning and personal experiences to form responsive relationships with their students in order to enhance learning;
- They recognize and change behaviors in order for them to be in accordance with the accepted standards for teaching;
- They negotiate their own identity and commitment in response to the perspectives of different stakeholders;
- They habitually reflect on feedback and consequences of choices;
- They tend to form judgments about their own teaching efficacy through the use of multiple sources.

It can be noted that through a reflections project, we can help teachers to develop their understanding, learning skills, and professional practice. Allowing teachers to have an agency and to explore the power and potency of reflecting on strengths and weaknesses will aid them to make sense of teaching and be the best that they can be.

Reflective practice can be used as an experiential learning experience. The following section examines some aspects of experiential learning and how teachers develop their understanding of their current practices.

# Furthering Teacher Agency Through Reflection and Experiential Learning

Teachers are still considered as learners, especially when we think of education as a lifelong learning process. Since teachers can be regarded as mature adult learners, research has demonstrated that adults learn through reflection (Kolb, 1984). The following figure shows the process by which adults learn (Fig. 29.2).

The above figure shows that the learning and reflection processes go in cycles. The person himself will plan and decide his action and attention, apply it, think it over, and then he will be evaluating the amount of the learning and its reliability in relation to his purposes or intents. Hence, Kolb (1984) expresses that knowledge formation results from the combination of grasping experience and transforming it through dynamic changes or what we can call "experiential learning." It can be noted



that there is no dichotomy between knowledge and experience in Kolb's definition, as experience grasped in different ways generates elementary forms of knowledge (Björklund, 2008). Kolb's definition of knowledge formation complies with Piaget's (1970). According to Piaget, knowledge is a process of assimilating reality into a system of transformation. He stresses that understanding an object is possible not through perception only, but by acting upon it through dynamic interaction between individuals and the outside world. As a way to answer the claims that other kinds of non-experiential learning might occur, Kolb offered the justification that it is possible to claim that other types of learning are possible when we define experience as the type of interaction, the person gets involved in, then we have covered the whole complexity of those varied processes which constitute learning within the framework of the social-constructivist paradigm (Kolb, 1984).

According to Hargreaves (1994), teacher learning as a process is both individual and social. In fact, many researchers recognize that individuals already have prior knowledge and beliefs, which are central to how and why they develop understanding. Therefore, the process of learning could be seen as an active process of interaction between individuals, resources, and the social context around them. Hence, for teacher learning to occur, teachers need to have opportunities to participate in professional communities discussing various teaching methods and materials, learning theories and classroom strategies. The purpose of asking teachers to reflect upon their own teaching experiences is to help them to reflect and demonstrate that while they are engaged in teaching and learning at the same time. They learn from the feedback they receive from their students and colleagues, learn new issues from new materials or methods they use in their classes, or from searching for other resources. Teachers construct their own beliefs about the way they prefer to learn and teach (Hargreaves, 1994; Kolb, 1984).

Furthermore, one significant factor that brings reflective and experiential learning together in an effective way for the management of education is that both are forms of learning that are independent of mediation (Moon, 2004). This learning is a self-managed continuing professional development which could happen in life beyond the formal systems of education, or what can be referred to as everyday learning (Moon,

2004; Schön, 1983). According to Moon (2004: 74), "*the idea of 'mediation' is useful because it focuses on the material of teaching rather than on the activities of the teacher.*" I concur with that, although I believe that the idea of mediation targets both teaching material and teachers' practices. This is why nowadays we see educationalists conducting research that tackles what is being taught and how it is taught and trying to nurture CPD programs in many respects.

The concept of mediation leads to discussion of the influence of the top-down approach in HE institutions.

#### **Top-Down Educational Approach**

Research indicates that the top-down approach played by schools is a crucial factor in organizational effectiveness and the key to success and improvement (Miller, 2013). There is no unitary definition of what can be counted in this approach to leadership (Ibid.). However, this concept includes many aspects starting from teacher recruitment, teacher development, improving outcomes for students, and so on.

In Saudi Arabia, "bureaucracy is a major obstacle in HE" (Alamri, 2011: 90). For instance, the system is centralized in the MoE.<sup>1</sup> The Ministry provides policy statements detailing the aims of educational institutions and confers legitimate power to its body, which provides a list of policies for universities to follow, such as the start and end dates of each academic year, the choice of academic staff and administrative members, faculty entrance scales, and other managerial directives. The ultimate authority goes to the MoE, but the education authority is in the hands of the managers in national universities. People, who work within universities, including teachers, are required to abide by these directives and commands. However, as the universities have emerged.

A top-down approach means the institutionalization of power and the regulation of desire and emotion (Ball, 2013; Elliott, 2007). Foucault argues that in modern society, individuals are increasingly subject to what he terms "disciplinary power," a power that is hidden (Elliott, 2007). Power is imposed upon people through the bureaucratic surveillance of their daily life and the routine gathering of information (Ibid.), as the workplace and school settings are fully concerned with the routine monitoring of teachers. However, Foucault often speaks of the micropolitics of power, by which he refers to the multifarious submissions and resistances of individuals in their interaction with social and institutional life. Foucault warns that power is never fixed; instead it is best conceived as a relationship between individuals, groups, and institutions with recognition of the importance of human subjects as creative and knowledgeable agents, not simply the passive victims of power practices and domination (Ibid.). Within the framework of Foucault's society, it can be noted that more order means more repression (Ibid.).

<sup>&</sup>lt;sup>1</sup> Ministry of Education.

Moreover, research has indicated that leadership within the school system and the whole-school management style has a direct impact on teacher's perceptions and practices (Humphreys, 1993). Humphreys adds that effective leadership and management within the school can enhance teachers' effectiveness, and the effects of role load are considerably reduced where there is strong staff cohesion and cooperation.

"The international literature on effective schools makes reference to leadership being firm and purposeful, involving others in the change process" (Miller, 2013: 8). Research findings assert that the concept of leadership should not be single-handedly managed by a designated group of people but should be disseminated among staff. Such dispersal can boost teachers' motivation levels and improve the quality of teaching activities as well as students' educational attainment (Sergiovanni, 2001; Harris, 2002; Leithwood and Riehl, 2003 cited in Miller, 2013).

#### The Role of School Climate on Teachers' Perceptions

The study of the effect of school climate has its roots in organizational psychology and research on school effectiveness (OECD, 2009). School climate includes relevant aspects of the school environment: the physical environment, the social system, relationships between admin members, teachers and students, a sense of community, norms among peers, teacher and student morale, and safety; hence, researchers agree that it reflects a subjective view of the learning environment at the school level (Cohen, 2006 cited in OECD, 2009).

The climate of the school plays a crucial role in the quality of schooling and instruction. An increasing body of research shows that school climate affects teachers' as well as students' academic achievement, their well-being, and personal and social development (OECD, 2009). In addition, a study conducted by Beets et al. (2008) revealed how school climate and school-level factors influence teachers' beliefs and attitudes toward the influence of a school's administrative support and perceptions of school connectedness. This study asserts that the positive action program of the school administration enhances teachers' positive behaviors and behavioral attributions directed at the self (e.g., positive concept of the self and self-responsibility) and social relationships (e.g., respect, fidelity, kindness). This study also concludes to emphasize the need to consider the importance of a supportive school environment on curriculum implementation and attempt to incorporate models of successful school leadership and collaboration among teachers that foster a climate promoting cohesiveness, shared vision, and collaboration.

The positive action role played by the school consists of scripted and scoped programs that reinforce positive teacher/classroom behavior and are based on wide staff recognition and empowerment (Beets et al., 2008).

#### The Role of Empowerment on Teachers' Reflections

Empowerment is a process. Empowerment is a term that carries different meanings. For instance, from the field of feminist studies, the emphasis is on the empowerment of women (Weiler, 1988). Empowerment in this view is about the freeing of females: from oppression or subordination of their positions within their field of work and having their contributions recognized and respected. Others see it as linked with enhancing human possibility (McLaren, 1989). The definition that fits best with the theme of this chapter is that which was provided by Bolin (1989: 82):"teacher empowerment means investing teachers with the right to participate in the determination of school goals and policies and to exercise professional judgement about what and how to teach." This term was most usefully discussed by Simpson (1990), where it is linked to professionalism and concerned with improving working conditions for teachers. This view regards teachers as confronted with all the social, political, and economic forces which hold the power to limit what is possible. A further view of empowerment is offered by Paolo Freire (1970) cited in Robinson (1994), the revolutionary Brazilian educator who called for this humanizing process which means to him being freed from what he described as the banking concept of education. The way in which empowerment was described by Freire at that time can be referred to today as the marketing of education. Both notions suffocate the vision of teacher autonomy and empowerment as they put more emphasis on the student regardless of teachers. However, it can be noted here that the term empowerment "has an expanding presence in a broad range of fields and contexts, it has often been used as a rhetorical device without being carefully defined by its wielders" (Kreisberg, 1992:19 cited in Robinson, 1994). In this research, I shall look at empowerment subdivided into control over curriculum, pedagogy, and assessment.

My understanding of teacher empowerment is aligned with that of Spreitzer and Quinn (2001) cited in Brindley and Crocco (2009), who emphasized the importance of self-determination of the teacher (the freedom of an educator to determine their own actions), meaning (what teaching means to the teacher), impact (feeling of making a difference), competence, guidance, and control. Spreitzer and Quinn suggest that in order to empower teachers and enable them to have an impact, the following measure should be realized:

- Developing a structure for change;
- Using a common language that leads to a common understanding of the concepts and goals of that piloting structure;
- Soliciting relevant professional partnerships;
- Providing the needed professional development support.

In order for the empowerment of teachers to be achieved, all these measures need to be understood in a balanced culture based on mutual understanding, respect, guidance, and trust (Brindley & Crocco, 2009).

The notion of teacher empowerment in the Saudi context has been through different shifts and stages. For instance, in the early days of schooling in Saudi Arabia (during the 1930s to 1970s), teachers enjoyed a great deal of power and were considered as the main actors in the whole educational process. In Saudi Arabia as well as in some Arab countries, there was a famous saying used by parents who used to take their child to school. They used to tell the teacher that "*The flesh (of the pupil) is yours, but the bones are ours.*" They meant by this saying that the teacher was able to do what they wanted with that student, but should keep them in good shape, and they meant that literary and metaphorically.

However, by the late 1980s, attitudes toward teachers had changed and teachers were regarded as semi-skilled workers whose performance needed close supervision and further training. This was transformed into education and training in Teacher Training Colleges (Lawton, 1996). A quote by Viscount Lowe, who was the Vice-President of the Committee of Council on Education in England from 1859 to 1864 (cited in Lawton, 1996: 118), may best reveal the truth about how people perceive teachers: "Allowing teachers to decide what to teach would be as foolish as asking chickens what sauce they would like to be served in." Although this quote is old in time comparing to the situation in Saudi Arabia in the 1980s, it indicates the changing perspective toward teachers and the down grading of their role.

Furthermore, in response to globalization and with the rise of the current knowledge-based economy, there have been changing expectations of teachers' roles both from the public and from educationalists. Accordingly, there has been a shift in thought, viewing teachers as moving from being transmitters of knowledge to facilitators of knowledge, from traditional old paradigm of "followership" to "leadership" (Frost et al., 2000). Due to this paradigm shift, implementation of new educational policies, innovations, and reforms has been made in different contexts, but when it comes to Saudi context, there is still a need for more teacher involvement and empowerment to some aspects, such as curriculum practices and assessment. What is striking through all those years until recently is the fact that there was/is no control by teachers over curriculum. Therefore, I think the Saudi teacher is still stuck in the 70s era, where their whole involvement is underestimated. A number of research studies have demonstrated that when there is an increase in empowerment and professionalism, job satisfaction increases and on-the-job stress decreases (Britzman, 2003). Thus, it is obvious that greater job satisfaction is associated with a high degree of professionalism and empowerment. Moreover, an empirical study by Dee et al. (2003) demonstrates that empowered teachers show higher levels of organizational commitment. This study also indicates that empowered teachers showed high levels of self-determination and impact dimensions, and the total empowerment score had positive effects on teachers' levels of commitment to the school. Therefore, one can claim that in order to engage teachers in pedagogical reform, one must give them some control over their own work, enable their voices to be heard, and let them influence the reform process. It also means that "fake empowerment" strategies will lead to bad outcomes (Dee et al., 2003).

I advocate what the educationalist Sir Kenneth Robinson suggests in his lecture in 2013 at TED conferences, "*How to Escape Education's Death Valley*," which reports that some local cultures deprofessionalize teachers and adopt a mode of command

control education. Dr. Robinson defies this notion of education and suggests that to engage and succeed, education has to develop on three fronts:

- (1) It should foster diversity by encouraging individualization of the learning and teaching process, offering a broader curriculum, and giving responsibility for defining the course of education to individual schools and teachers.
- (2) Education should foster curiosity by developing high-quality teachers: "education cannot be improved if we do not improve teachers."
- (3) It should foster creativity by developing alternatives to didactic processes that put less emphasis on standardized testing. He gives Finland as an example of a successful education system where teachers have the space and power to choose their own curriculum and creative practices.

Robinson also goes on to assert that there is no system in the world or any school in any country that is better than its teachers, as he notes "*Teachers are the life blood of the success of schools*" and emphasizes that we only can succeed if we recognize that education is an organic system not a mechanical one "*Successful school administration is a matter of fostering a helpful climate rather than commands and control.*"

To be empowered is to have voice. Voice and its significance in enhancing teachers' perception and agency will be highlighted in the next section.

#### The Role of Voice on Teachers' Reflective Practice

It is vital in this research study to take into consideration teachers' voices because their voices reflect how they perceive their own teaching experiences, the major factors affect their own teaching, and what aspects they need to improve within their own classroom environment.

Voice is a term which is increasingly linked to teacher empowerment by most researchers, and it has been central to the development of teacher thinking research (Day et al., 1990). For example, Smyth (1987) identifies this area of research as a way of empowering teachers and facilitating the expression of the teacher's perspective and getting inside their heads. Whereas, in other areas, such as feminist research, e.g., Gilligan's (1982), the notion of voice is referred to as a way to redraw the terms of moral development and engagement of teachers. In fact, voice is a term that has been used in a plethora of research and policies:

Voice is now used in a variety of projects and policies from advocacy to consumer rights and citizenship education [...] It has become an established element of central and local government rhetoric, but as it gains in popular usage it becomes increasingly open to question and criticism. (Hadfield & Haw, 2001: 485)

Indeed, the notion of voice has prevailed in traditional qualitative research as it assumes to present the *truth* and reflects the *meaning* (Jackson & Mazzei, 2009). "Yet

the rise of dissident voices threatens traditional centres of power and control" (Hargreaves, 1994: 249). Hargreaves in his book "Changing Teachers, Changing Times," describes the bureaucratic impetus to guide processes of change and improvement lead the teachers' voice that doubts the change or disagree with it to be unheard, or be silenced. He indicates that the best solution to such conflict is the development of a common vision, establishment of trust, commitment to shared goals, and developing clarity in understanding the goals being implemented because a world of vision without voices is problematic. He concludes that a major challenge for educational restructuring is to work through and reconcile this tension and create a collective vision not complying the principal's own.

Like Hargreaves, Chambers (1998) points out that empowering teachers to present their realities and enable their voices to be heard, understood and acted on leads us to talk about two sequential aspects related to voice and how it can bring about change in a society: (1) voice to policy change (policy-in-principle) and (2) policy change to practice (policy-in-practice). According to Chambers, the link between voice and policy change and practice includes three dimensions:

- **Ownership**: affects likelihood of change. However, ownership by groups of people or even a person in civil society may have to be initiated without explicit government support and then lead to confronting policy-makers with evidence about desirable change.
- **Credibility**: is needed to convince policy-makers. Researchers carry conviction by being transparent and self-critical about their methods and findings; their reports and outputs include voices in the form of what their participants have said, visualize, and made.
- **Process**: is far more than just presenting a report. It is rather the most important and critical aspect to seizing potential opportunity.

It can be noted that it is a triple nexus of aspects that should be understood to enable delivery of all voices with no bias. This taxonomy by Chambers relates us to the three axes suggested by Foucault in his book "*The Courage of Truth*" (1983 cited in Ball, 2013), knowledge (truth), power (government), and subject (human agent). In his book, Foucault argues that neither knowledge, power, or subject is reduced one to the other nor absorbed one by the others, but whose relations are constitutive of one another (Flynn, 2005 cited in Ball, 2013). Foucault explains these axes involve a repositioning and reconsideration, and he goes to emphasize that power is an "agonism" and our personal qualities such as self-esteem, empowerment, as well as our hopes and dreams are artifacts of power (Ibid.). Hence, our understanding of ourselves is linked to the ways in which we are governed (Dean, 1999 cited in Ball, 2013).

As voice and agency are related and one can reflect the other, the following section sheds light on agency, efficacy, and how this can affect the concept of the able self.

### Teachers' Perceptions of Their Own Identity (Selfhood) and Agency

Identity refers to the way one understands and views oneself and is often viewed by others, at least in certain situations (Horn et al., 2008). Teacher identity is easily misunderstood and hard to articulate, but still open to interpretation (Olsen, 2008).

Teacher identity is a useful *research frame* because it treats teachers as whole persons in and across social contexts who continually reconstruct their views of themselves in relation to others, workplace characteristics, professional purposes, and cultures of teaching. It is also a *pedagogical tool* that can be used by teacher educators and professional development specialists to make visible various holistic, situated framings of teacher development in practice. (Olsen, 2008: 5)

The concept of identity or self has been central to many schools of thought in the social sciences, yet an emphasis on human agency varies significantly depending on whether we are adopting a sociological, psychoanalytic, post-structural, or postmodern approaches (Elliott, 2007). For our analysis, and from a sociological point view, teacher identity provides access to the dispositions of individuals together with the environment they encounter and helps to see the people we are trying to understand (Horn et al., 2008). Thus, it helps to make sense of the relationships individuals develop together with the context they encounter in HE. It is essential to investigate teacher identity as a useful framework for the study and practice of teacher education. Moreover, the talk of teacher identity leads us to think of how a teacher constructs a sense of selfhood inside her own workplace context. However, the construction of selfhood is not entirely a matter of private reflection on one's experiences, yet social aspects play a significant aspect in this process (Bandura, 2006). According to Bandura, human identity is partially constructed from one's social identity as reflected in how one is treated by significant others and how one is labeled socially. Hence, we can assume that teacher identities are constructed through the complex interactions between individuals and social, national, and global realities (Kumaravadivelu, 2012). Teachers are faced with the challenge of aligning their "teaching self" in congruence with everyday realities, but how teachers derive meaning from contemporary realities and how they negotiate contradictory expectations defines how they construct their sense of selfhood or "teaching self" (Ibid.). It can be said here that the sense of selfhood is the product of a set of complex interactions between the person himself and the social reality in which he lives. However, one pervasive and core factor in the foundation of human agency is the belief in personal agency, which is also a key resource in personal development and change (Bandura, 1997).

Efficacy beliefs affect whether individuals think optimistically or pessimistically, in selfenhancing or self-debilitating ways. Such beliefs affects people's goals and aspirations, how well they motivate themselves, and their perseverance in the face of difficulties and adversity. Efficacy beliefs also shape people's outcome expectations [...] determine how opportunities and impediments are viewed. [...] affect the quality of emotional life and vulnerability to stress and depression. And last, but not least, efficacy beliefs determine the choices people make at important decisional points. (Bandura, 2006:170–171) Indeed, the effect of beliefs in one's personal efficacy and agency operates through its impact on cognitive, emotional, and decisional processes, and many meta-analyses of the effects of efficacy beliefs have concluded, both laboratory and field studies with diverse populations of various ages in different cultural milieus, that efficacy beliefs contribute dramatically to level of motivation, emotional well-being, and performance accomplishments (Ibid.). For instance, it has been found that the wellbeing of the human is determined by the level of self-esteem. Medical evidence shows a strong correlation between physical health and high self-esteem; likewise, psychology and psychiatry have indicated that peoples' hardships in life are related to personal vulnerability and feeling of inferiority and experiencing low self-esteem (Humphreys, 1993).

On the other hand, high level of teachers' self-efficacy beliefs relates positively to high levels of student achievement; however, the role of collective self-efficacy matters, too (Leithwood, 2006 cited in Bangs & Frost, 2012). The collective agency or voice of teachers is embedded in many educational systems, and it is essential to consider the role of organizations representing teachers, such as subject associations and unions (Bangs & Frost, 2012). Such organizations can undertake to promote teachers' professional pride and enhance their sense of collective self-efficacy (Ibid.).

Teachers' unions exercise leadership on behalf of teachers but can also empower their members as individuals to act strategically on initiatives which may be driven by values and principles not necessarily in line with current policy. (Bangs & Frost, 2012: 42)

Indeed, teachers' organizations and unions can both enhance teachers' empowerment and learning experiences and contribute to the formation of teacher policy (Bangs and MacBeath, 2012 cited in Bangs & Frost, 2012). However, such institutions are limited in numbers in Saudi Arabia and formed based on individual initiatives and play a zero to fragile process in decision-making, which could lead to the absence of teachers' voices and empowerment. Fullan (2011) cited in Bangs and Frost (2012) is critical of teaching policies in specific countries which fail to engage teachers, and he argues that unless governments back off low-trust strategies and start engaging teachers in the profession, they will get neither the commitment nor the skills needed for the success of whole system. Accordingly, one of the outcomes of the International Education Summit on the future of the teaching profession in America in 2012 makes clear that "teachers" unions are prepared to engage in the development of teaching policies on the basis of equal partnership with governments and draws strongly on the evidence that teacher unions are essential to successful education reforms and supporting social dialogue (Ibid.)."

To sum up, it can be noted from the discussion above that the notions of voice, empowerment, and the teacher as a reflective practitioner are interrelated and hold an overlapping relationship due to the dynamic nature of each concept and the intricate subject (human beings/teachers). The complexity of and relationships between these concepts became more evident through the discussion of each one, its definitions, and characteristics. Voice is said to influence empowerment and thus identity, but also to be empowered means to have voice and identity. Thus, they are interrelated and enhancing one of them would boost the other (Fig. 29.3).



Having discussed the three nexuses (voice, empowerment, and the teacher as a reflective practitioner) that shape teacher agency and efficacy, the next section will provide a materialized example of the curriculum in Saudi Arabia, its concepts and practices, and the centrality of teachers in curriculum formation in Saudi higher institutions which will help represent the field.

#### The Saudi National Curriculum

Curriculum is at the heart of any education system, and it is clear that it has a fundamental role in shaping the body of any educational institution. It reflects the models of instructional delivery chosen (Wilson, 2005). It cannot be studied in isolation; it is the formation of the interaction between school and society, which is also shaped by them (Ibid.). The success of the education process and the acquisition of knowledge and skills depend largely on the way we tailor or design school curricula and make use of educational, pedagogical, and psychological ideas, which help to open new channels of understanding of the required aspects for learning to take place (Kelly, 2004; Marsh, 2009; Wilson, 2005; Yates & Grumet, 2011). Hence, a school curriculum is a fundamental part of teachers' perceptions and practices.

The Saudi national curriculum is underpinned by scientific, philosophical, and pedagogic bases (Alshaer, 2007), that comply with its religious and future aspirations. It comprises content and skills, with the emphasis on the development of basic skills. Each subject must incorporate the inculcation of Islamic moral values and attitudes. This integrated approach is the main focus in the design of the "Integrated Curriculum" that is contextualized for Saudi students, their school, their community, and state standards. The incorporation of both the elements of knowledge together with the skills and values has been made in order to bring integrated development of the intellectual, emotional, spiritual, and physical aspects of the learner (Ibid.). Having this in mind, it is clear that the curriculum is designed to cater for the needs of the country and provide it with well-balanced, knowledgeable, and loyal citizens who will be better able to serve their country. As a matter of fact, it could be argued that such an approach could introduce future generations into who is the "we" and who is "other." This theme can proliferate unfavorable feelings within students toward other cultures. Nevertheless, this new era of war against terrorism made it hugely significant for educationalists to teach future generations to be more open and respectful to

other cultures. That was the main reason for conducting two reforms to curriculum and its intolerant content in 2004 and 2010. However, it is of high importance to teach students to be open and respectful to others' cultures and concepts because the emergence of new advances, and easy and instant communication, has made the whole world a small village. However, information technology has also a major issue for school curricula in the twenty-first century, and that is how to create a sense of community and common values in a context where knowledge cannot be restricted (Kennedy, 2005). Curriculum experiences are no longer confined to the classroom, there is an increasing gap between "official" school knowledge and "real"-world knowledge (Kennedy, 2005; Marsh, 2009). Indeed, this emergence of new advances which have eased communication and made the whole world a small village cannot be ignored in curriculum formation. So, it is not rational, even impossible to try to create barriers between students and reality in the world through the control of curriculum. It is essential for the curriculum to relate students to the real world and give them the tools that could enrich their knowledge and ease their lives.

For the curriculum to be comprehensive and realistic, the adult learner must be given the opportunity to have direct experience of tools and equipment, rather than theoretical explanation. This should be done under conditions comparable or similar to actual conditions of work and with educational equipment, tools and aids comparable to those found at work. All of these conditions produce good results when capable and experienced adult education teachers are chosen. (Alshaer, 2007: 17)

Alshaer's statement implies the importance of curriculum to enable students to master technical, interpersonal, and methodological skills as well as the significant role of the teacher. Technical skills include problem-solving and analytical skills. Interpersonal skills include teamwork and communication. Methodological skills include the ability to learn on one's own and to cope up with risk and change. Furthermore, based on this, it can be argued that the content-dominated approach of the Saudi curriculum is focusing more now on a very significant goal that is supposed to be incorporated into the curriculum, which is the development of methodological and thinking skills. However, there is still a reduction in curricular content that allows more time for creativity, innovation, knowledge application, entrepreneurship, and the ability to work in real environments. These latter mentioned skills are requirements in any educational system which helps to outline the final desired outcomes. We are in need of the application of "Teach Less, Learn More" model inside our classrooms. It is important to help our students to be creative thinkers and instill a passion for learning among learners instead of having them study merely for the purpose of obtaining good examination grades (Goh, 1997).

Although in recent years there has been a tendency for governments to try to influence curriculum content, there is still room for curriculum planning at the school level (Bangs & Frost, 2012). Nevertheless, in most Saudi educational institutions, there are "teacher-proof" packages: versions of curriculum, a curriculum that fails to engage enough with a most crucial link—the agency of the teacher. Teachers ought to be able to adapt and use what they were offered by their course designers. Teachers do not have the freedom to design their own curriculum or even to choose from the curriculum what best fits their students' requirements. They find themselves obliged

to abide by one standardized curriculum as the assessment is a summative one. As an experienced teacher, I find myself explaining some lessons that have been part of the English curriculum in general education and students know them by heart. So, why do I need to waste instructional time repeating something that has been done before? This could also be the main reason for the low incidence of English proficiency among Saudi students in HE, as most curriculum practices are repeated.

These attempts to manipulate teachers by remote control or through the creation of teacher-proof curricula (Kelly, 2004) deny the role of the teacher as the central figure inside classrooms practices. There is a loss of teacher identity and autonomy, which might affect the teacher negatively. In order to achieve the personal and local adaptation by teachers as real practitioners, the Ministry of Education must adopt a policy of supporting school-based curriculum developments rather than attempting to enforce teachers to follow prepackaged programs which might not fit the specific needs of students. The practices of such educational policies can be summarized as follows:

There is thus every discouragement in the present political climate for teachers who wish to view their professionalism in 'extended' terms and to pursue a study of curricular issues at levels beyond that of the mere 'delivery' of their subject knowledge. Indeed, the processes they are subject to have been described by many commentators as processes of deprofessionalization. (Kelly, 2004: 11)

Indeed, research has shown that most teachers firmly believe that "having the freedom to exercise professional judgement about curriculum content and approaches to teaching and learning is important as there should be no gap between actuality and aspiration (Bangs & Frost, 2012)."

However, as teachers play a crucial role in any educational context, their inclusion as active agents in policy formation should be enhanced. It is pertinent to discuss their role and centrality of teachers in policy formation, as the following section will do.

#### The Centrality of Teachers in Policy Formation

No one can ignore the significant role of teachers in making educational change and development as they are also concerned with curriculum formation and the preparation of individual lessons.

The teacher has a 'make' or 'break' role in any curriculum innovation. Teachers have been known to sabotage attempts at change; certainly it is clear that such attempts can succeed only when the teachers concerned are committed to them and, especially, when they understand, as well as accept, the underlying principles. The practice of education cannot be a mechanical, largely mindless activity; it requires constant decisions and judgements by the teacher. (Kelly, 2004: 9)

Education is an interactive process; therefore, it is necessary for such a process to appreciate and accept the decisions made by teachers and to enable them to be fully

engaged in the rationale of any educational process design. Kelly (2004) advocates that the quality of any educational experience depends largely on the work of the individual teacher and any outside attempts at controlling their practices must be doomed to failure, or at best to triviality. He also goes on to visualize the activities of the Office for Standards in Education, in some education institutions, as those of a kind of "thought-police" designed to prevent teachers from indulging in any act of "sabotage" as they act on their own professional judgments. Teachers sometimes find themselves obliged to implement new curricular policies over those they have had no influence in framing in order to try to fulfill their students' needs, as the situation in most Saudi HE institutions. According to Kumaravadivelu (2012), the recognizing and promoting of teachers' roles and motivation and "teaching self" are all about recognizing teacher identity, beliefs, and values.

However, the effective fulfillment of the role of the teacher is dependent on the breadth of her insight and understanding. Therefore, it is essential to find an alternative strategy for ensuring teachers' compliance to external requirements through the introducing of new schemes of pupil assessment, regular inspections, and teacher appraisal and accountability (Kelly, 2004). These measures are very significant for the long-term quality of educational provision. Cullingford (2009) stated that it is an international conclusion, based on research, that the more independence educational institutions and teachers have, and the less the interference from outsiders, the better they perform.

#### A Partnership Curriculum

It should be noted that "a truly democratic society requires a curriculum which the students and teachers have the right to comment on and contribute to (Brundrett & Silcock, 2002)." Brundrett and Silcock describe "the partnership approach or coconstructive teaching' as an approach that gives teachers and learners a formal party. They go on to assert that all interested parties have the right to inclusion in this process of negotiation." They also argue that the curriculum which emerges from this process would reflect a more egalitarian and democratic approach which could be the solution of the conflicts of interest and perspective. Kelly (2004) explains that the idea of enabling students and teachers to negotiate and to contribute to decisions concerning their curricula is important in achieving autonomy and individual empowerment. Indeed, no one is in a better position to decide what the students need than the students themselves and their teachers. Kelly (2004) also criticized the educational societies that do not apply such a partnership approach and articulates that

It (partnership curriculum) has an important part to play in counteracting the anti-democratic aspects of those policies of government to plan their educational systems by target-setting [...] This is thus an important response to the ills of the top-down approach to educational planning. (Kelly, 2004: 90)

Kelly concluded that the notion of education as individual development is a highly important one and no one can reject it without rejecting democracy itself. Nevertheless, this developmental model approach has attracted more criticism. The criticism of this model of curriculum has come from two main sources: the politicians and the philosophers of education (Kelly, 2004).

**Political objections**: The first reason for the developmental model not to be favored by politicians is that it is expensive. Secondly, the effectiveness of this form of the curriculum depends greatly on decisions made by teachers, pupils, and even parents. Hence, if there is a national curriculum, it will need to consist of broad guidelines rather than tight prescriptions. The third reason is that such a curriculum cannot be controlled through central direction.

**Philosophical objections**: The criticism here comes from those philosophers who advocate content-based curriculum. For example, Dearden (1968, 1976) cited in Kelly (2004) claims that a developmentally appropriate curriculum, which is based on enquiry, discovery, and active forms of learning in general, is not a sufficient device to ensure that students learn all they have to learn. Nevertheless, this may not be a sound judgment to make. Following a content-based curriculum or any other curriculum does not guarantee full attainment. This issue relates to assessment which needs further study and focus. Kelly (2004), rejected such claims and stated that this kind of criticism errs in regarding such an approach as a form of methodology; in addition, it is mounted from a completely objectivist position that fails to recognize how the developmental approach to curriculum is founded.

[...] the evolutionary process of curriculum development has been effectively halted; and, in general, the 'secret garden' of the curriculum has been thrown open to the public – an event which, as in many other stately homes, has led to ossification as well as preservation and too much trampling on the flower-beds. (Kelly, 2004: xiv)

There have been new and emerging themes cited in the literature around curriculum. For instance, in the UK, a text published by Ross (2000) cited in (Marsh, 2009) has a focus on curriculum and reproduction, hidden curriculum, content-driven, objectives-driven, and process-driven curricula. In Australia, other major themes focusing on curriculum concepts have evolved. For example, Smith and Lovat (2003) cited in (Marsh, 2009) examined the origins and nature of curriculum, curriculum and ideology, curriculum and the foundational disciplines, critical theory, assessment and evaluation, curriculum change, and curriculum futures. A study by Brady and Kennedy (2007) examined social contexts, curriculum planning models, assessment, and evaluation, in addition to curriculum change. Marsh (2009) examined student learning, curriculum planning models, providing for individual differences, assessment and reporting, school culture, standards, innovation, and change. Furthermore, in (2011), Yates and Grumet in their book "Curriculum in Today's World," which has been classified as the world yearbook of education for that year, question the configuration of knowledge in curriculum and what is meant by a school "transmitting knowledge." They conclude with the emphasis on the dynamic relations between knower and known, learner and learning, student and teacher, who should be engaged in curriculum formation and aspirations. Students and teachers interpret instructional material and curricula according to their community and home-based knowledge (Canagarajah, 1999). During classroom activity, they move between competing rhetorical and discursive traditions to find coherence for their thought and expression (Ibid.). The cognitive and educational advantage of this practice should be appreciated. Accordingly, teachers and learners should be encouraged to become reflexive about their classroom practice, to negotiate language and knowledge, their common values and community membership, in particular ways, since knowledge is socially constructed. In this reflexive and negotiated process of pedagogy, there is scope for developing a context-sensitive and culture-specific approach to language teaching. Such an orientation to pedagogy functions as a heuristic to develop appropriate practices from bottom up (Ibid.).

#### Conclusion

According to Baird et al. (1991), teachers who are seldom asked to reflect upon their own teaching could be nothing more than mere users of textbook materials. It is hoped by this study that it is possible to help teachers to construct their own perspectives on their own teaching culture and practices, to participate in analyzing their personal beliefs, and then modify their behaviors in order to enhance their personal conceptions on how to teach and what to teach. It is very important that teaching should appear to teachers as something challenging, dynamic, and in no way restrictive to their ambitions. It is essential for this impression to be sustained and that the reality must match up to the image projected. If a change of attitude and perception in this direction could be achieved, it could have a very significant effect among educators and policy-makers to make teaching a more attractive and enjoyable career. Enabling teachers to make their own voice heard, as they are the main actors in this research and in teaching in general, will ease the path before them to build upon their own choices. In short, it is essential to help teachers to establish their own identity as real teacher practitioners, to reflect and build on their own practices. They may then be in a better position to understand their students' needs and requirements. I hope that teachers can benefit from the research, as I know I will.

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# Chapter 30 Teacher Preparation Programs in Iraq



Haider Hatem Alijrish

**Abstract** The process of preparing the teacher is one of the topics that persists and still preoccupies the specialists in educational affairs in the countries of the world, because the teacher is the main factor in the success of the educational process. The need to reconsider the teacher and teacher preparation programs in faculties of education and basic education faculties in Iraq is increasing in the recent period, as a result of what is happening in the world in terms of changes and developments. Teacher preparation programs based on standards, competencies, skills, and roles have gained global attention. This chapter presents the teacher preparation process and programs in Iraq that include academic, educational (professional), and cultural aspects.

Keywords Teacher preparation  $\cdot$  Iraq  $\cdot$  Cultural aspects  $\cdot$  Sequential program  $\cdot$  Political change

### Introduction

The teacher is one of the basic components of the educational and educational process and an essential element and the cornerstone and the strongest link in any educational and educational process. To meet the diverse needs of society, it is also responsible for formulating the ideas of young people, shaping their behavior, forming their values and ideals, and integrating them into the society in which they live.

Therefore, the issue of teacher preparation and qualification is one of the main issues that must take the lead among all educational development projects in higher education institutions in most countries of the world. In the last decades of the last century and the beginning of this century, calls for education reform and the need to develop its quality and quality have multiplied. Then the necessity of preparing the teacher to be able to play his various roles in a world characterized by constant

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change and change in the aspects of life, and this can only be done if there is quality in education, and there is no quality in education without good preparation of teachers.

#### The Concept of Teacher Preparation Program

The concept of the teacher preparation program includes overlapping terms. The concept of the program differs from the concept of preparation, as it means a set of activities formulated to respond to the goals and objectives in education. This concept includes two ideas: the idea of the tribal prepared before, and the idea of practical, meaning that the program is a set of practical and theoretical lessons. As for preparation, it is "the processes, activities, and procedures aimed at preparing individuals to master the basic principles in a particular field, and to acquire the skills necessary to perform certain functions and tasks." (Al-Qari et al., 1994: 165,275).

As for the teacher, he is the person who is prepared and trained in all aspects of knowledge, pedagogy, psychological, physical, human, and social, to carry out the task of education in society (Rabei & Abdul-Dulaimi, 2009: 13).

As for the term teacher preparation programs, it means planned programs organized according to educational and psychological theories, carried out by specialized educational institutions to provide students with scientific, professional and cultural skills and experiences, with the aim of providing future teachers with educational competencies, which enable them to grow in the profession and increase their educational productivity (Al-Bazzaz, 1989: 177).

#### **Objectives of Teacher Preparation Programs**

The objectives of teacher preparation programs can be summarized in four main groups (Bishara, 1986: 130–136), as follows:

1.A. Set of individual goals: those goals related to the personality of the student teacher and his needs, desires and motives, and among those goals (that (the student teacher) recognize his value as a human being, and acquire habits and attitudes that help him as an individual able to assume his responsibilities, and to acquire trends positive toward the teaching profession and to have broad interests in contemporary scientific trends.

2.A. Set of social goals: the goals associated with the teacher's social role inside and outside the school, including: that the student teacher acquires the skill of communication with others, that he knows the methods and methods of community service and development, that he understands the problems of the local and national community and contributes to solving them, and that he bears social responsibilities required for the social and economic advancement of the local community.

3.A. Set of cognitive goals: the goals that are related to the knowledge and skills necessary to cover the cognitive dimension in the teaching profession, including:

(that the student teacher acquires scientific thinking trends, and that he acquires scientific knowledge and skills that help him to master his specialization, and to understand the nature of the learning process and the nature of the learner and to acquire self-learning skills.

4. Professional set of objectives: the objectives associated with the knowledge, abilities and skills necessary to cover the professional aspect, including (that the student-teacher be able to formulate his educational activities in a behavioral manner, and to choose and organize the required content for any educational situation in the classroom taking into account the individual differences among learners, and to be able to employing modern strategies in education, and being able to employ techniques and teaching aids in classroom education.

#### **Aspects of Preparation in Teacher Preparation Programs**

There are three basic aspects through which the teacher is prepared in Iraq, and these aspects are integrated with each other in order to prepare a teacher capable of performing the roles expected of him in the future when practicing the teaching profession, and these aspects (Al-Ahmad, 2005: 87–89) are:

- The aspect of cultural preparation: It is concerned with providing the teacher with a general culture that allows him to learn about other sciences and gain him experiences related to life affairs in general and with regard to his community in particular.
- Specialized preparation aspect: by which we mean all the experiences that the student teacher should acquire in the field that he is preparing to teach, so as to have a strong basis that enables him to provide the expertise of this field to the learners.
- The aspect of professional educational preparation: by it we mean all the experiences that the student-teacher should acquire in order to help him achieve an understanding of the learner's nature and composition, knowledge of learning theories, methods, methods, tools, educational requirements related to society, identifying aspects of the development of educational thought, and being familiar with the activities of the teaching and learning process required from The teacher is concerned with each of the curricula, teaching techniques, school management, directing and guiding learners, and planning for teaching, as well as preparing the teacher practically through the experiences that the student teacher should acquire in order to help him practice classroom education with remarkable success, and this aspect is one of the most prominent aspects in preparation of teachers, which is the basic criterion in the ability of the student teacher to be a teacher or not.

#### **Methods of Preparing Teacher Programs in Iraq**

The methods of teacher preparation programs varied in the institutions of its preparation, so that it reflected the philosophy of each institution and its trends toward the optimal way to be taken in qualifying the student teacher, and reflected that diversity in its capabilities and material and human capabilities, which was not a result of the moment but was old, as each institution of preparation adhered to its program Because it sees in it the positives that suit it, so it did not develop its programs in a way that eliminates what preceded it, and affects the basic philosophy of the program.

The teacher preparation institutions in the faculties of basic education have followed several teacher preparation programs, some adopt the integrative teacher preparation program, and there are those who follow the sequential program, and there are those who have adopted the teacher preparation program in light of the systems method, and some of them follow the teacher preparation programs based on competencies, and because of that Diversity The researcher dealt with these programs through their most prominent features and main characteristics, their advantages and disadvantages, as follows.

#### The Integrated System Program for Teacher Preparation

It is a program by which "the teacher is prepared in one educational institution for a number of years, determined by the nature and level of the stage, in which the student obtains the components of his integrated preparation in terms of cultural, specialized and professional aspects" (Habib, 1993: 17). The integrative system as well as "preparing the student scientifically, educationally and culturally at the same time, so the student-teacher takes the three components of the preparation program together" (Mahmoud, 1995: 320), and it also means "that there should be integration between the programs and curricula of colleges of education and other colleges. It is based on the interdependence of cultural preparation (university requirements) and practical (mathematics, physics, chemistry, biology, Arabic language, English language, history) so that all of this is integrated with the professional aspect (educational and psychology subjects) and practical education, and this preparation is for a period of time. One integrated and completed with one degree, as the student-teacher studies specialized, cultural and professional subjects in parallel throughout the years of preparation to obtain a bachelor's degree in mathematics, language, physics, and other disciplines (Fakih, 1995: 31).

For this reason, it can be said that the integrated system of teacher preparation in preparation institutions is the system in which "the student is accepted since joining the college or institute on the basis that he will be prepared to be a teacher during the years of study spent by the student in his college or institute, and is considered scientifically, educationally and culturally for the teaching profession (El-Deeb, 1977: 93).

#### The Sequential System Program for Teacher Preparation

Most of the teacher preparation institutions follow two well-known systems, the first is the integrative system that we have gone through above, and the second is the sequential system, in which the university student studies four years in his specialized college, and then joins in the fifth year of the College of Education to complete preparing him for the teaching process, and this preparation process takes place in one year in which he studies all the educational courses in this program.

And the sequential system for teacher preparation is "the system in which the teacher is prepared in two stages. Faculties of Education, meaning that the professional preparation follows the specialized and cultural preparation in the light of this system" (Hariri & Musa, 1993: 378), and it is also known as "the system in which the teacher's preparation begins in the scientific subject in one of the specialized faculties of the university, such as: (College of Sciences). It is noted from the advanced definitions of the sequential system of teacher preparation that they unanimously agreed that this system deals with the student teacher who studied at the university for four years in Scientific colleges, then he joins the College of Education, which prepares him in one year for the teaching profession. This means that the student's admission to his college will be based on special conditions and specifications for the college he is enrolled in, and not on the basis that he will become a teacher.

#### **Competency-Based Teacher Preparation Program**

Teaching competencies are among the most prominent educational findings in the field of professional teacher rehabilitation. A kind of relationship between the preparation programs on the one hand and the tasks, responsibilities and duties that the teacher will face on the other hand, in which the teaching process is divided into a set of skills that are derived from multiple teaching situations, and then the student is trained on them." (Hassan, 1989: 35).

The emergence of the competency-based teacher preparation movement came in the "seventies of the last century, as a reaction to the traditional methods that prevailed in colleges of education" (Al-Khatib, 2002: 371), and among the factors and justifications that led to the emergence of this trend was the criticism directed at traditional teacher training programs, and the emergence of the principle of defining responsibility in the educational process. It can be said that the movement of teacher preparation in the light of competencies did not arise out of a vacuum, but is linked to other cultural movements, and as a result of the interaction of several factors, the most prominent of these factors (Saadeh & Al-Laqani, 1991: 114–115) are the following.

 Adopting sufficiency instead of knowledge, so what is required is the teacher's practical ability to sufficiency, and not just his knowledge of it.

- Granting competency-based certificates, moving from one level to another. The university degree is awarded after the student teacher has specific competencies.
- The development of educational technology, which introduced some modern technologies into the educational sciences, and which became very necessary for the teacher to be able to use them in a proper manner.
- The movement of setting behavioral goals, so the goals became more clear and accurate, and their measurement became clear and easy, so generality in the teaching process disappeared.
- The movement of experimentation opened the way to experiment with the use of new teaching methods. The teacher must be able to deal with everything new, which has proven its effectiveness in teaching.
- Work-oriented training, as teacher preparation is done before and during service, and then the teacher preparation process has become a continuous process, which does not stop until after retirement from teaching work.
- The movement of individualizing education, every student has the capabilities and abilities that make him ahead of his peers, or lagging behind them, and then the process of preparation and education has become according to the capabilities of each student.
- Teacher evaluation has evolved, as the teacher is no longer evaluated through his attendance and preparation book, but the evaluation process has become more comprehensive, and the multiplicity of individuals who carry out the evaluation process is no longer confined to one person such as the educational supervisor.
- The philosophy of efficiency in performance is a natural response to modern trends in the economics of education (responsibility), because teachers who achieve efficiency in performance are more effective, and this is an important step toward social responsibility.
- The effective development of education came later than the industrial and economic development, and the view of education began to be adapted to the philosophy of the machine view, the goal being effectiveness in teaching based on production and measurement.
- Public opinion has been affected by the view that the teacher's preparation to perform his work effectively is not enough, and one of the things that cannot be denied is that the teacher's competence is one of the many factors that directly affect the levels of achievement of his students.

# The Teacher Preparation Program in Light of the Systems Method

One of the recent trends in teacher preparation is the so-called systems method. This method is considered one of the prominent features of modern civilization and is based on the theory of general systems applied in (thinking, planning, and scientific research), which deals with any educational phenomenon. It constitutes an integrated system, with its components, relationships, and processes that seek to achieve the

specified goals, and this method came as a result of the scientific and technological revolution in the educational field.

The systems approach is "an analytical and systematic method that enables us to progress towards achieving the goals set by the mission of the system, by means of a disciplined and tidy work of the parts that make up the whole system, and those parts are integrated according to their functions that they perform in the total system that achieves the goals, which were set for the mission" (Abdul Hamid & Taher, 1987: 382), and also defines the systems method as "a pattern of thinking and a treatment method that has steps, or stages of work, which are defining the goals or the goal, analyzing the elements of the system, implementing the system, evaluation and feedback" (Marei, 1983: 77).

The systems method is applied in preparing teachers by defining the system's inputs to the teacher, and determining the system's outputs at levels of proficiency, i.e., the competencies specified in the program. The feedback links between the system's inputs and outputs, as well as between all system operations, and modification is made on the basis of it. This program begins with the design stage, and this stage includes defining the program's educational philosophy, general, and specific objectives, selecting educational experiences, educational activities and techniques, and evaluation strategies. The evaluation stage is either formative or final. Then comes the stage of preparation for application, which includes a specification of teaching and learning strategies, selection of educational resources and techniques, then comes the stage of application and management, in which what was designed and planned in the previous two stages is implemented, then comes the stage of evaluation is measured. The results of education, in order to judge the efficiency of educational activities, methods and teaching aids (Bahader, 1981: 17–21).

Thus, it can be said that the teacher preparation program in the light of the systems method consists of four main parts, which are (Waih, 2004: 62–63):

- 1. Inputs: includes all the elements that make up the systems and contribute to achieving a specific goal or objectives. Examples of system inputs in the teacher training system are (preparation program, goals, content, methods, and educational environment).
- 2. Operations: a series of active actions and interactions that occur between the system's input elements, in order to provide the appropriate conditions, to transform these inputs into outputs to be achieved.
- 3. Outputs: which are the final results achieved by the system, and the outputs of teacher formation, which are the teacher with the desired specifications in light of the objectives of the preparation program.
- 4. Feedback: It represents the outcome of the process of evaluating and analyzing the outputs, in light of the objectives set for the system. It gives indications of the extent to which the objectives have been achieved and accomplished, and clarifies the strengths and weaknesses in any other part of the system, and on the basis of which modification, change, or addition is made. Or delete anything in the system.

#### **Teacher Preparation Program in Iraq**

# A Historical Overview of Teacher Preparation Programs in Iraq

The Higher Teachers' House was established on (1/12/1923), and graduates of the primary teachers' role or those who completed the general secondary stage joined it, due to the need of secondary and primary schools for qualified teachers and teachers in the fields of natural sciences and social sciences. The duration of the study was two years at an average of (12) lessons per week, and in (1929) the Teachers' House was closed along with a number of Iraqi institutes, due to the deteriorating economic situation at that time in Iraq. -1939). The period of study in the school became from three to four years in a row, and the system remained stable until (1957), and on (1/1/1958) the Teachers' House was linked technically and administratively to the University of Baghdad, and this was decided by the Constituent Council of the University of Baghdad. And the name of the Higher Teachers' House was replaced by the College of Education, and it has remained on its integrative system prevalent in preparing its students practically and professionally (Al-Dujaili, 1964: p. 92).

As a result of the societal and cognitive development that has taken place and the increasing preparation of students of science and knowledge, the need to rely on a new plan to create learning opportunities for all age groups, and the need to establish educational institutions concerned with preparing teachers and teachers individually has emerged. Preparing male and female teachers in the beginning, the institutes were limited to their presence in the governorate of Baghdad and then included almost all the governorates of the country, and male students became special institutes for their preparation, and female students have special institutes for their preparation. The study is five years for those who hold a middle school certificate, and with regard to central institutes, the study period is two years for those who dream of a preparatory stage certificate, and the graduate is awarded a diploma in education and psychology (Al-Moussawi, 2004: 418), and it is worth noting that these institutes were canceled last year.

In light of the global trend of teacher preparation at the level of university education to achieve comprehensive growth, and to keep pace with the progress and development taking place globally, and from this point of view, work began to establish special colleges to prepare primary school and kindergarten teachers. Basic education.

#### **Colleges of Basic Education**

Three colleges for teachers (the Colleges of Basic Education now) were established in 1993 in the universities (Al-Mustansiriya, Mosul, Basra (later joined to the University of Maysan)), and in 1994 two colleges were opened, one at Diyala University and the

other in Babylon University, and then opened other faculties, totaling at the present time to more than ten faculties.

The student is accepted into that college after obtaining the secondary certificate in its literary and scientific branches and according to the central acceptance, and the duration of study there is four years.

The basic education colleges program in Iraq is based on the classroom system, and educational and specialized courses are taught in it. Its courses include three basic aspects, namely general culture (17%), professional educational courses (33%), and specialized courses (50%). The student in the second half of the last semester to scientific education (application).

This college consists [\*colleges of basic education in Iraq vary in their containing the aforementioned departments, so there is a college that contains all the aforementioned departments, such as the College of Basic Education et al.-Mustansiriya University, and there are other colleges that contain a number of them] a group of sections:

- 1. Department of Islamic Education.
- 2. The Arabic language department.
- 3. Department of English Language.
- 4. Mathematics department.
- 5. Department of General Sciences.
- 6. The first grade teacher's department.
- 7. Art education department.
- 8. Department of Physical Education.
- 9. History section.
- 10. Kindergarten department.
- 11. Department of Educational Guidance.
- 12. Department of Special Education.
- 13. Department of Family and Vocational Education.
- 14. Geographical department.

### *The System of Preparing Teachers in the Faculties of Basic Education*

The system followed in preparing teachers in the Faculty of Basic Education is the integrative system, by preparing them in the departments of the Faculty of Basic Education in a period of four years.

Those departments follow the classroom system in distributing courses, as the student-teacher receives various specialized, cultural, psychological, and educational courses, distributed over eight semesters of fifteen weeks in one semester, as well as in the second semester. As for the titles of the specialized and cultural courses (Ministry of Higher Education and Scientific Research, 1993: 78–99):

The total number of units and their ratios for cultural, general, and specialized subjects for the four grades is shown in the table.

Materials	The total number of units	Percentage%
Cultural	28	17.391
Educational	48	29.814
Specialty	85	52.795
Total summation	166	100%

The total number of units and their proportions for cultural, general, and specialized subjects for the four grades.

By reviewing these courses, the researcher believes that the preparation system does not focus on the practical aspect prepared by academic accreditation bodies, the cornerstone of teacher preparation, as well as the need for development by adding other courses.

## Contemporary Global Changes and Their Impact on Teacher Preparation Programs

There are a number of contemporary global variables with different dimensions that have greatly affected the contemporary world in thought, concept and application. These variables also affected the educational process in general and teacher preparation programs in particular, and they are:

1. Cognitive change: This change lies in the increasing speed at which knowledge is produced and accumulated, and the use of knowledge and activities is free to a large degree from the categorical separation between disciplines, and from the fragmentation of knowledge, and is aware of how the parts of knowledge are interconnected with each other, and has the ability to renew his knowledge, and his continuous desire to keep up-to-date and new in this knowledge, and knowledge in production, and to increase the rate of added value resulting from it (David & Dominic, 2002: 15), as well as technological change at its accelerating rates, which includes the generation and spread of new technologies and materials, and unlimited technical creativity in Known as the process of "creating knowledge" (Al-Salami, 1997: 172), it also refers to the increase in the branches of knowledge, and their expansion, and the growing overlap between them, in what is known as (crossing disciplines and interdisciplinary studies) (MaitIstras, 2001: 494), and in light of cognitive variables, The preparation of the teacher should focus on preparing (the knowledge teacher), who is the teacher who possesses a solid scientific base of knowledge with breadth and depth of knowledge. It is a source of modern knowledge for students, and to be able to guide them to sources of knowledge in the immediate surroundings of the school and in the large community, and is committed to applying the knowledge it provides and how to benefit from and control it in the students' lives, and has the ability to train students on the skill of obtaining knowledge from its sources in a manner independent (Whale, 2004: 130-132).

2. Informational change: This change refers to the intensity and speed of exchange of information and knowledge, its low costs, the growth of electronic control science and its software, and its link to modern communication technology and its unlimited potential (the Internet) (Ghalioun & Amin, 2000: 21), which enhanced the communication process, and make it more interactive, as it made approaching the global a great and possible feature for everything, and in light of the informational variables, the preparation of the teacher must focus in preparing (the digital teacher), and he is the teacher who is able to use the computer and the Internet and communication skills and communicate through it orally and in writing in a sophisticated language and rich vocabulary, who can teach using educational technology, and has the ability to transform educational content into educational activities, and to teach in a project way, and depends on workshops, laboratories, closed circuits, educational bags, films, and videotapes as teaching aids, and is able to train and prepare students to deal with the world of information, data and rapid communications through the computer and the Internet, and all other means and techniques for analyzing and processing information, and linking information. The former is replaced by the new, and all of them are used in practical life (Whale, 2004: 126-127).

3. Economic change: This change refers to the intensification of the international transfer of resources, its connection to an increasing number of cross-border transactions, the liberalization of markets and their integration into one market, the increase in capital flows, foreign direct investments, and international companies as a driving force for the global economy, affecting local economic characteristics. And the logic of its management, in light of the acceptance of the structural transformations, required at the level of economic, commercial and financial policies, transformational, technical, and informational activities, as the production and financial structure of countries becomes interconnected and integrated in time and space in what is known as the digital economy and e-commerce, in which all goods and services become capable of production, sale and competition in every A place in the world (Walalou, 1996: 40–42), and in light of the economic variables, teacher preparation should focus on preparing (the private teacher), a teacher who possesses a wide repertoire of cognitive and professional skills necessary to identify the various difficulties that students face in learning, which plays the role of mediator between the needs of learners, the needs of society, and the needs of the educational system. The shadow of private and independent educational institutions, and according to a work contract to do specific and specialized work, and within a work team that helps him, and integrates with him, where the work is part-time, and the teacher has the skills necessary to create strong relationships with parents and school stakeholders, who supervises his performance. It sets its curricula, and its methods evaluate members of society in its various segments, whether from the individuals themselves (fathers and mothers), or officials in the sectors of work, production and services, and everyone who has an interest in the growth of education, and in the return from this education (Whale, 2004: 126–130).

4. Political change: It refers to redefining the scope of power up to higher levels of the state, linking it to institutions with global goals, transcending the concept of independence and sovereignty to the concept of participation and interaction in global
affairs and international peace, and the emergence of the concept of global or multidimensional citizenship for the homeland and the world with all its cultures, as well as about redefining the scope of power down to local structures and organizations, in what is known as the (convergence) hypothesis, which resulted in the acceleration of secularism and rationality and its activation and efficiency in the management of the liberal state, and the expansion of popular participation in government (Heggott, 1998: 51-54), as the concepts of democracy and freedom became human rights and citizenship are major themes in world politics. Indeed, at the present time, they are the historical tide from which all winds of change emanate from, and they gain from the self-motivation a tremendous momentum that makes resisting them a very dangerous matter, and this is the slogan of the world's organizations, institutions and individuals, whether on the internal level of states or at the level of trying to impose them as a criterion for dealing with one another (Al-Taweel, 1999: 423), and in light of the political changes, teacher preparation must be He focuses on preparing the (democratic teacher), which is the teacher who represents academic freedom, as a conscious and mature behavior and practice in life, and in the educational process in accordance with the controls and commitment to the public interest. On idleness and negligence, so that he is creative in education and research, and does not close to a specific stereotype, and exercises his role effectively and efficiently in education, evaluation, professional growth, and community service, and he walks with his students to the maximum extent of their ability, capabilities, and preparations, and the students perform justice, integrity, and transparency, and he is able to develop ability criticism, which requires free thinking and independent action, and constitutes an incentive for students to research, criticize, participate and debate others and respect their opinions, and works to involve all students in the teaching process, and to revitalize the class and correct the error caused by its hierarchical structure, and to get rid of negative models in regard to authority (Watfa, 2000: 88).

5. Cultural change: It refers to the emergence of global communication networks that actually link all countries and societies, through the increase of symbolic flows, images and information across national borders, and so rapidly that we live in a global village (Ghalioun & Amin, 2000: 16), and the audio-visual system becomes the source. The strongest for the production and manufacture of cultural values and symbols, and then a deeper global integration, by subjecting societies to a single historical and spatial culturally, socially, and politically (Khreisan, 2001: 21), produces across societies and borders tension and forms of tension and attraction between the forces leading to cultural homogeneity, and between the processes of diversity or heterogeneity. The cultural (Al-Naqeeb, 2002: 18), and in light of the cultural variables, preparation of the teacher should focus on the preparation of the (modern teacher), a teacher who has a cultural capacity in mental arts, sciences, and languages, and leads innovation and community industry according to the requirements of the times, and is able to Dealing with the renewal of local culture and interaction with global culture, instead of memorization or fascination. Reconciling opinions and building a developed and changing point of view. He is the teacher who encourages the saying (think globally and implement locally), is interested in interacting with other peculiarities, and takes into account cultural pluralism in teaching and evaluating it, and that the teacher has full awareness of the political, cultural, and social factors that affect his work, which has a role in spreading a culture of peace, and a commitment to the principles of justice, tolerance, dialogue and respect among members of society, groups and peoples of different ethnic, religious and cultural diversity.

From the foregoing, we find that contemporary global variables include all aspects of human life: knowledge, technology, economic, political, and cultural life, and that each variable includes a scientific, intellectual, and applied debate, and even each variable affects the other, and they are variables that form the environment surrounding the educational system, and affect its elements and operations. All according to the systems approach, as the teacher is a cornerstone in this system, and its impact is a reality and inevitable, this calls for reconsidering the teacher preparation programs, raising the quality of his preparation, and relying on international standards in teacher preparation, in order to confront these variables and keep pace with them And those standards lie in the bodies accrediting international teacher preparation programs, which have a great deal of experience in this field.

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# Chapter 31 Representation of Teacher Knowledge Base in Teacher Education Programs in Iran



Zia Tajeddin and Monireh Norouzi

**Abstract** Teacher education programs are shaped and reshaped in line with emerging conceptualizations in teacher education, research on teacher knowledge base and professional development, and feedback received from research on teachers' beliefs and pedagogical practices. This chapter presents a critical review teacher education in Iran in the past few decades and describes the knowledge base defining the substance of teacher education programs enacted currently in this setting. The chapter also discusses the implications, opportunities, and challenges in teacher education in Iran.

**Keywords** Teacher education  $\cdot$  Iran  $\cdot$  Language education  $\cdot$  TTC  $\cdot$  Knowledge base

# Introduction

Teacher education programs are shaped and reshaped in line with emerging conceptualizations in teacher education, research on the teacher knowledge base and professional development, and feedback received from research on teachers' beliefs and pedagogical practices. Despite varied conceptions about the role of these interrelated variables, there is a growing consensus that the scope of a teacher education program/curriculum should be delineated in view of three dimensions (Freeman, 2009): (1) substance of teacher education, (2) teacher engagement in professional learning processes, and (3) assessment of teacher education outcomes or influences. Although engagement and outcomes are the key to the development of successful teacher education, the substance of teacher education has remained the primary concern of teachers, teacher educators, and teacher education researchers. Teacher education substance, expected to be framed by and represent the teacher knowledge base, is a benchmark not only for mapping past and present of teacher education but also for describing convergences and divergences in teacher education across

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institutional (micro-level) and sociopolitical and educational (macrolevel) settings. One of these settings, which is the focus of this chapter, is teacher education in Iran, where millions of students at schools and private language institutes are learning English (Sadeghi & Richards, 2016) and their language abilities and gains are largely impacted by teacher quality and, in turn, the effectiveness of the substance dimension of teacher education.

Against this backdrop, the aim of this chapter is to critically review teacher education in Iran in the past few decades and to describe the knowledge base defining the substance of teacher education programs enacted currently in this setting. The chapter begins with a critical review of main shifting stands in teacher education in the context of Iran (Aliakbari & Tabatabaei, 2019; Atai & Mazlum, 2013; Borjian, 2013). This section continues with the description of main models of the teacher knowledge base as the frame expected to shape the substance of teacher education (Dogancay-Aktuna, 2006; Freeman, 2016, 2020; Freeman & Johnson, 1998; Johnson & Golombek, 2020; Richards, 1998; Roberts, 1998; Tarone & Allwright, 2005). In particular, Roberts' (1998) conceptualization of the teacher knowledge base is detailed, which includes content knowledge, pedagogical content knowledge, general pedagogic knowledge, curricular knowledge, contextual knowledge, and process knowledge. Next, the chapter reports on an empirical study to outline the knowledge base of teacher education programs practiced in private language institutes in Iran to unravel how these programs represent the knowledge base of teacher education as delineated by Roberts. Based on this study, implications are proposed about opportunities and challenges in teacher education in Iran, and the relevance of the findings to teacher education is discussed. The chapter ends with concluding remarks and directions for future research on the substance of teacher education programs.

# Language Teacher Education in Iran

English language teacher education in Iran has witnessed numerous ups and downs due to the ambivalent status of English in this country. Before the Islamic Revolution in 1979, English education was somewhat foreground due to widespread collaborations between Iran and the West. Two centers, namely the British Council and the Iran-American Society, played significant roles in educating English teachers. These collaborations involved organizing teacher training seminars and summer workshops, getting scholarships for English teachers, recruiting native teachers, and supporting Iran's Ministry of Education (Borjian, 2013).

English education, however, was subject to revisiting by the new postrevolutionary state. Although learning foreign languages was highlighted in high school English textbooks as a national need in the modern world, some postrevolutionary officials concerned with fostering Islamic values conceived of Englishspeaking culture, albeit not the English language per se, as incompatible with Islamic culture in some respects (Khubchandani, 2008). Such negative attitudes resulted in

the marginalization of private language institutes for a few years although there was a burgeoning of language institutes across the country in later years. As such, over years, English "found its way smoothly right to the Iranian society, proving itself to be a necessity, rather than a mere school subject" (Dahmardeh, 2009, p. 278) thanks to the globalization, economic privatization, the Internet, and the rapid growth of higher education in the country. As Yavari (1990) put it, English was learned not only disseminating the ideologies of the Islamic revolution but also for academic purposes. Therefore, English, as an international medium of communication, was recognized as a vital prerequisite for success (Riazi, 2005), motivating millions of students to learn English in order to have social and educational achievements (Sadeghi & Richards, 2016). However, the ELT program goals, methodology, and curriculum of the public sector failed to satisfy these needs (Atai & Mazlum, 2013; Hayati & Mashahdi, 2010; Pishghadam & Saboori, 2014). Similarly, teacher education programs were criticized by several researchers. Baniasad-azad, Tavakoli, and Ketabi (2016), for instance, reported that teacher education programs follow a transmission model and neither teachers nor trainers are involved in program development. They attributed the gap between macro plans and teachers' practices to Iran's centralized education system. Aliakbari and Tabatabaei (2019) evaluated teacher education programs at teacher education universities based on California Standards for the Teaching Profession (Commission on Teacher Credentialing, 2009). The authors realized that first year group's expectations differed from last-year group's evaluations.

The shortcomings of the public sector along with the mounting demand for English language learning (Atai & Mazlum, 2013) has led to the growth of the private sector ELT market (Davari & Aghagolzadeh, 2015; Maftoon et al., 2010). The consequence of the burgeoning of private language institutes was a wave of teacher training courses (TTCs) offered by these institutes. Given that no governmental organization supervised and evaluated these courses, there were considerable differences among these courses in terms of curriculum and methodology (Rezaee & Ghanbarpour, 2016). Hence, it is not surprising that "most of these language institutes do not approve of the TTC certificates issued by other institutes [which forced] ... teacher applicants to attend several TTCs in different institutes in order to find a job as an English teacher" (Ganji, Ketabi, & Shahnazari, 2018, p. 3). A number of studies have found dissatisfaction with these TTCs. In one study, Tajik et al. (2019) examined the status quo of teacher training in private language institutes. Their study revealed that TTCs require improvement in diverse areas such as theory-practice gap, in-service workshops, reflective teaching skills, technology, and experiential learning. Analyzing the instructional content of Iranian TTCs, Rezaee and Ghanbarpour (2016) found that these courses pay little attention to writing skill and totally disregard dynamic assessment. In a study by Bagherzadeh et al. (2019), the curricular knowledge base of Iranian EFL teachers were examined based on Robert's (1998) model. The results showed that teachers lacked a thorough understanding of the components of curricular knowledge. The researchers, therefore, acknowledged the need for broadening teachers' curricular knowledge through designing TTCs that are tailored to teachers' needs. In a more recent study on Iran's teacher education programs, Bagherzadeh and Tajeddin (2021) examined the content of 15 language institutes' teacher education programs to see how curricular knowledge is represented in these programs. The results showed that the programs consisted of 12 components and 59 categories. However, only 4 categories and 12 components were relevant to curricular knowledge, and more interestingly, these categories were reflected only in two institutes' TTCs.

#### Language Teachers' Knowledge Base

As a result of the growing understanding of the complex and dynamic nature of teaching profession, the scope of language teacher education (LTE) and, accordingly, its knowledge base has continually evolved over the past decades. Tracing this evolution reveals that, prior to the 1970s, conceptions of the knowledge base of language teaching were mainly restricted to a dichotomy between language (alternatively called content, theory, or knowledge) and teaching (also known as pedagogy, practice, or skills) (Graves, 2009). This compartmentalized view was also reflected in teacher education programs as the language component and the practice component were taught separately. In the 1980s, however, research on teacher cognition revolutionized views of the knowledge base of teaching. This line of research indicated that teachers are not empty vessels to be filled with theory and skills, and that they have tacit theories about teaching which are shaped through their own experiences and prior knowledge (Johnson, 1999; Roberts, 1998). Teaching was, therefore, reconceptualized as a complex cognitive process in which teachers analyze and reflect on a myriad of factors (Johnson, 1999). Such critical understanding had important implications for the language teacher education curriculum. Teacher education programs needed to recognize and acknowledge teachers' prior knowledge (de Abreu-e-Lima et al., 2008). As Graves (2009) points out, these programs aimed to "initiate teacherlearners into such a discourse so that they could talk about it and to provide opportunities to develop reflective skills so that they could understand and improve practice" (p. 118).

Over years, more and more pieces of the puzzle of the knowledge base of language teacher education have been identified such as teachers' identity, beliefs, attitudes, knowledge, experiences, socialization, learning, reflection, and values. Given this diversity, it is not surprising that various (re)conceptualizations of the language teacher knowledge base have been proposed, though there is still no general agreement on what constitutes the core of this knowledge base (Farrell, 2018). Broadly speaking, Freeman and Johnson's (1998) seminal work has been a turning point in broadening the epistemological framework of the knowledge base for language teacher education. Arguing for the importance of the activity of teaching itself, Freeman and Johnson proposed a tripartite framework consisting of teacher–learner, the social context, and the pedagogical process. In the first domain, there is a conceptual shift in the role of teachers to learners in language teaching, highlighting the need for the knowledge base of language teacher education to "account for how individuals

learn to teach and for the complex factors, influences, and processes that contribute to that learning" (p. 407). Based on the second domain, an effective knowledge base cannot be established unless the influence of the context on teacher learning is acknowledged. Finally, the third domain relates to the activity of teaching and encompasses several issues as diverse as learning, pedagogical thinking and activity, and content. A proper understanding of this domain entails the consideration of its interrelationship with the other two domains.

The knowledge base of teaching, as conceived by Roberts (1998), is a system of knowledge bases, encompassing six kinds of language teacher knowledge. It begins with content knowledge, which is defined as the knowledge of target language systems and text types. Similar to Shulman (1987), Roberts believed that teachers need to know how to teach and adapt different issues to leaners with diverse interests and abilities, which is called pedagogical content knowledge. General pedagogic knowledge is another type of knowledge that relates to classroom management, assessment, and repertoire of ELT activities. Knowledge of the official curriculum and resources, referred to as curricular knowledge, is also a main dimension of the teacher knowledge base. In addition, contextual knowledge is assumed to be of prime importance in conceptualizing the knowledge base of language teachers. It is an umbrella term that includes knowledge of learners, schools, and communities. Finally, based on this model, teachers are expected to have process knowledge, that is they should be equipped with a set of skills such as interpersonal and team skills, observation and inquiry skills, and language analysis skills. Similar to Roberts (1998), Richards (1998) proposes that the knowledge base of language teachers is composed of six domains of content. These domains include theories of teaching, teaching skills, communication skills, subject matter knowledge, pedagogical reasoning and decision-making skills, and contextual knowledge.

In her account of the teacher knowledge base, Johnson (2009) gave prominence to three main domains. While the first domain deals with the content of teacher education programs (what L2 teachers need to know), the second domain relates to the techniques and strategies that are taught in these programs (How L2 teachers should teach). The last domain focuses on how the content and pedagogies are learned. In other words, this domain is concerned with institutional forms of delivery (How L2 teachers learn to teach). An important issue raised by Tarone and Allwright (2005) is that teachers of different subject matters differ in terms of what and how to learn, suggesting that the knowledge base of language teachers must be informed by both research on general teacher learning and second language teacher learning. The authors further questioned Freeman and Johnson's (1998) framework for leaving out learners in their reconceptualized knowledge base and pointed out the significance of considering learners in definitions of the knowledge base. Considering changes in teachers' roles and responsibilities and dissatisfied with lack of attention to sociopolitical and cultural factors affecting English language teaching, Dogancay-Aktuna (2006) also called for further expansion of the scope of the language teachers' knowledge base. In doing so, Dogancay-Aktuna argued for the inclusion of three areas of inquiry into the knowledge base of language teacher education: "(1) discussion

of crosscultural variation in language teaching and learning and tools for investigating this variation; (2) overview of management of pedagogical innovation; and (3) examination of the sociopolitical factors surrounding the teaching of English as an international language" (p. 278). Such modifications in the curriculum of language teacher education programs are expected to help teachers discern the situated nature of teaching profession and raise their sociopolitical and cultural awareness.

More recently, Johnson and Golombek (2020) highlighted that meeting the needs of teachers who should teach in highly globalized and diverse contexts requires "insider knowledge of the values, norms, and goals" (p. 117). In this respect, they called for foregrounding language teacher education pedagogy in the reconceptualization of the teacher knowledge base and emphasized the significance of taking a Vygotskian theoretical perspective (Vygotsky, 1978, 1986) for shaping and reshaping this pedagogy. In his most recent examination of the teacher knowledge base, Freeman (2020) made a distinction between work-driven and field-driven changes. While the 1998 proposal represented the former, that is, the activity of teaching defined the knowledge base, the latter is reflected in his 2018 conception of the knowledge base. Put another way, "English in the world - who is using it and how – is reshaping what English language teachers need to know, and thus English language teacher education" (p. 6). Freeman also referred to the problems of "translating' theory into practice and the 'positionality' of those defining what counts as knowledge" (p. 5). Freeman suggested that positionality is essential for revising the knowledge base and introduced use, confidence, and agency as work-driven concepts essential for thinking in new directions and redefining the knowledge base.

#### **The Present Study**

Numerous researchers have expressed dissatisfaction with TTCs operated in Iran. Given the significant role of teacher education programs in preparing the qualified teaching force, systematic evaluation of such programs is essential (Lynch, 2003; Peacock, 2009) in view of the teacher knowledge base reviewed above. More importantly, how the knowledge base of language education is conceptualized affects curriculum planning and, consequently, the knowledge base of teachers (Graves, 2009). Accordingly, designing effective teacher education programs hinges on a comprehensive account of this knowledge base. The present study, therefore, aimed to provide insights into the substance of teacher education programs by exploring how the knowledge base of teachers is represented in the programs developed by private language institutes in Iran.

#### Method

The data for this study were from two data sources from ten language institutes. We drew on the findings reported on six language institutes by Bagherzadeh and Tajeddin (2021) and a new set of data collected from four language institutes that had TTCs. The institute managers were contacted to be informed them about the purpose of this research and ensured that the confidentiality of documents would be protected.

Following the general guidelines for qualitative research (Miles et al., 2013), the content analysis of data was carried out in different stages. First, the contents of TTCs were analyzed to identify the key issues that they highlighted when training teachers. This initial analysis resulted in several major components, e.g., classroom organization, teaching grammar, and use of technology. In a further stage, comparison analysis was carried out to compare and combine the components obtained from each program (Leech & Onwuegbuzie, 2007). Then components with the same underlying themes were classified under major categories, e.g., teaching language skills and subskills, classroom management, and methodology. Finally, Roberts' (1998) model was used as a guide for further analysis of the categories. Categories indicating content knowledge and pedagogical content knowledge were highlighted. Afterward, categories revealing general pedagogical knowledge and curricular knowledge were identified. Finally, the categories were examined for contextual knowledge and process knowledge.

#### Findings

As stated earlier, this study aimed to examine the knowledge baseV of TTCs based on Roberts' (1998) conceptualization. Table 31.1 shows the amount of time that the institutes allocated to these programs. As it can be seen, the duration of TTCs ranged from 30 to 60 h. More specifically, institute A, ranking first on the list, covered the

Table 31.1	Time allocated to	Institutes	Hours	Sessions
1103		Α	60	20
		В	50	10
		С	40	10
		D	36	18
		Е	33	22
		F	33	22
		G	30	10
		Н	30	10
		Ι	30	20
		J	30	10

course in 60 h. After this institute, institutes B and C had the highest ranks and their TTCs were completed in 50 and 40 h, respectively. Institute D, with 36 h of training, ranked fourth on the list. Both institutes E and F allocated 33 h to their TTCs. On the bottom of the list are institutes G, H, I, and J, all of which enacted their courses in 30 h.

The results of the content analysis of TTCs are presented in Table 31.2. As shown by the table, most institutes concentrated on 11 major categories in their TTCs, such as planning lessons, materials, orientation session, assessment. On the whole, these 11 categories consist of 54 components. The category of Planning Lessons, for instance, includes Lesson Planning, Syllabus Design, Functional Language, and Integrative Planning. A detailed inspection of the table suggests that there are some similarities and differences among the institutes in terms of their focus on the categories and their corresponding components. Some categories were covered by almost all institutes, including Methodology and Instruction, Planning Lessons, Classroom Management, Skills and Components. Among the components of Methodology and Instruction, some components were taught by all institutes, such as Methodology, Monitoring, and Feedback. The only component of Planning Lessons that received attention from all institutes was Classroom Lesson Planning. As for Classroom Management, Teaching aids and Classroom Management were considered by all institutes. The most widely shared components belong to (sub)Skills. To illustrate this, Teaching Speaking, Listening, Reading, Writing, Vocabulary, and Grammar were the building blocks of almost all TTCs.

In contrast, Orientation, Introduction to the Course, Learner Variables, Technology, and Assessment were the least covered categories. For instance, only institute E embraced all the components of Learner Variables. The other institutes either ignored this category or covered only one or two components. Similarly, the Orientation category and its components were addressed only in the TTC offered by institute B. Surprisingly, all other institutes disregarded this category completely. Technology also did not gain much attention in TTCs as three institutes (institutes A, D, and H) incorporated this category in their TTCs. Finally, similar to Technology, Assessment was covered by only three institutes. On the whole, institutes C and E ranked first and second on the list by covering 32 and 31 components, respectively. Incorporating 28 components in its TTCs, institute D ranked third. The fourth institute on the list is institute A, which addressed 25 components. With only one component less than institute A, institute B ranked fifth on the list. The rest of institutes covered 22 components, and the bottom of the list belonged to institute F with only 21 components in its TTCs.

Table 31.3 compares the substance of TTCs based on Roberts' (1998) conceptualization of teachers' knowledge base. As it can be seen, except for Teacher Variables and Technology, the other categories of TTCs and their corresponding components represent the knowledge base in Roberts' (1998) model. More specifically, while the categories of Planning Lessons, Methodology and Instruction, Assessment, and Materials fall under the category of Curricular Knowledge, Classroom

Organizational behavior <th>Categories</th> <th>Components</th> <th>A</th> <th>В</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>Ι</th> <th>J</th>	Categories	Components	A	В	C	D	E	F	G	H	Ι	J
Administrative issuesII	Orientation	Organizational behavior		+								
Introduction to the courseCourse orientationIII <t< td=""><td></td><td>Administrative issues</td><td></td><td>+</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Administrative issues		+								
Defining aims++++Methodology and Instruction <t< td=""><td>Introduction to the course</td><td>Course orientation</td><td></td><td>+</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Introduction to the course	Course orientation		+								
Introduction to the course bookInt <td></td> <td>Defining aims</td> <td>+</td> <td>+</td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>		Defining aims	+	+	+						+	
Methodology and InstructionMethodology++ <td></td> <td>Introduction to the course book</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td>+</td> <td></td> <td></td>		Introduction to the course book						+		+		
Monitoring+++++++++++++++++++++111	Methodology and Instruction	Methodology	+	+	+	+	+	+	+	+	+	+
Elicitation+i++++iiiGiving instructionsii++iiiiiiClassroom languageii++iii<		Monitoring	+	+	+	+	+	+	+	+	+	+
Giving instructionsIII<		Elicitation	+		+	+	+	+	+	+		
Classroom languageiii </td <td></td> <td>Giving instructions</td> <td></td> <td></td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td></td> <td></td> <td></td>		Giving instructions			+	+	+	+	+			
ContextualizationIII <td></td> <td>Classroom language</td> <td></td> <td></td> <td>+</td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Classroom language			+	+						
Feedback++++++++++++++++++11 </td <td></td> <td>Contextualization</td> <td></td> <td></td> <td>+</td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Contextualization			+	+						
InteractionInteractio		Feedback	+	+	+	+	+	+	+	+	+	+
Class organizationIII </td <td></td> <td>Interaction</td> <td></td> <td>+</td> <td>+</td> <td>+</td> <td></td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td></td>		Interaction		+	+	+		+	+	+	+	
Planning lessonsSyllabus design+++		Class organization					+					
Classroom lesson planning+++111<	Planning lessons	Syllabus design	+	+		+				+		+
Functional languageiii		Classroom lesson planning	+	+	+	+	+	+	+	+	+	+
Integrative planningIII		Functional language		+						+		
MaterialMaterial evaluation+ii <td></td> <td>Integrative planning</td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Integrative planning				+						
Using authentic materials++<	Material	Material evaluation	+									
Adapting materials+III <tdi< td="">IIII<td></td><td colspan="2">Material evaluation+Using authentic+materials+</td><td></td><td>+</td><td>+</td><td></td><td></td><td>+</td><td></td><td></td><td>+</td></tdi<>		Material evaluation+Using authentic+materials+			+	+			+			+
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Adapting materials	+						+			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Integrating materials				+						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Designing materials			+							
$ \begin{array}{c} \mbox{Classroom management} & \mbox{Motivation} & + & \mbox{i} & + & \mbox{i} & + & \mbox{i} & + & \mbox{i} & \mb$		Choosing materials		+	+		+		+			+
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Classroom management	Motivation	+		+	+		+	+		+ +	
Class arrangementIII <td></td> <td>Classroom management</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td>		Classroom management	+	+	+	+	+	+	+	+	+	+
Critical moments during a lesson+++ <td></td> <td>Class arrangement</td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td>+</td> <td></td> <td></td> <td>+</td>		Class arrangement					+		+			+
Teaching aids+++ <t< td=""><td></td><td>Critical moments during a lesson</td><td>+</td><td></td><td>+</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Critical moments during a lesson	+		+							
Learners and learner variablesDifferent learners++++ </td <td></td> <td>Teaching aids</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td>		Teaching aids	+	+	+	+	+	+	+	+	+	+
Learner-cantered+++Learners' goals+Learners' expectations+	Learners and learner variables	Different learners		+	+		+					
Learners' goals+Learners' expectations+		Learner-cantered						+	+	+	+	
Learners' expectations + +		Learner-cantered Learners' goals					+					
		Learners' expectations					+					+

 Table 31.2
 Categories and components of TTCs

(continued)

Categories	Components	A	B	C	D	E	F	G	H	Ι	J	
	Learners' purposes					+			+			
	Learners and teachers			+		+						
	Learning strategies/styles/learning			+		+					+	
	Multiple intelligences			+		+				+		
	Learner autonomy				+	+				+		
Teacher variables	Professional identity											
	Teacher roles			+							+	
	Reflective teaching				+	+				+		
	Teacher language			+	+	+		+		+	+	
	Teacher development	+	+	+		+				+		
Technology	Use of technology	+			+				+			
Skills and components	Integrating the skills		+			+	+					
	Literacy skills				+	+	+			+		
	Teaching listening	+	+	+	+	+	+	+	+	+	+	
	Teaching reading	+	+	+	+	+	+	+	+	+	+	
	Teaching speaking	+	+	+	+	+	+	+	+	+	+	
	Teaching writing	+	+	+	+	+	+	+	+	+	+	
	Teaching vocabulary	+	+	+	+	+	+	+	+	+	+	
	Teaching phonetics/ sounds	+	+	+	+	+	+		+		+	
	Teaching grammar	+	+	+	+	+	+	+	+	+	+	
Assessment	Testing and evaluation	+				+			+			

<b>Table 31.2</b>	(continued)
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Management represents General Pedagogic Knowledge. Moreover, Learner Variables falls within Contextual Knowledge, whereas Skills and Components relates to Pedagogical Content Knowledge.

A close inspection of Table 31.3 indicates that TTCs that are enacted in private language institutes assign special status to Pedagogical Content Knowledge as six components of the category of Skills and Components are incorporated in all institutes' TTCs. In general, almost all TTCs included some information about the nature of each skill, different approaches to teaching the skill, and the institutes' approved methodology for the use of tasks. For the pre-task phase of teaching Listening, institute I, for instance, provided the following information.

This phase of instruction serves several purposes. First of all, it activates students' background knowledge, which is assumed to improve students' listening skill. It also increases their motivation and interest in the topic. In addition, ....

Similarly, institute F familiarized teachers with various techniques for teaching listening to be used in different phases of instruction and for different groups of

Table 31.3         Subst	tance of TTCs based on	1 Roberts' (1998) model										
Roberts' knowledge bases	Categories	Components	A	в	C	D	ш	ц	Ð	Н	Ι	f
			+	+	+	+	+	+	+	+	+	+
	Assessment	Testing and evaluation	+				+			+		
	Planning lessons	Syllabus design	+	+		+				+		+
		Lesson planning	+	+	+	+	+	+	+	+	+	+
		Integrative planning				+						
	Material	Material evaluation	+									
		Using authentic materials	+		+	+			+			+
		Adapting materials	+						+			
		Integrating materials				+						
		Designing materials			+							
		Choosing materials	+	+	+		+		+			+
General	Classroom	Motivation	+		+	+		+	+		+	+
pedagogic	management	Classroom management	+	+	+	+	+	+	+	+	+	+
kilowiedge		Class arrangement					+		+			+
		Critical moments during a	+		+							
		lesson										
		Classroom organization					+					
		Teaching aids	+	+	+	+	+	+	+	+	+	+
Contextual	Learners and learner	Variety of learners		+	+		+					
knowledge	variables	Learner-centeredness		+	+			+	+	+	+	
	_	_					-	_		-	(con	tinued)

Table 31.3 Substance of TTCs based on Roberts' (1998) model

(continued
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able
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Table 31.3 (cont	tinued)											
Roberts' knowledge bases	Categories	Components	A	В	C	D		ц	Ð	Η	Ι	ſ
		learners' goals			+		+			+		
		learners' expectations					+					+
		learners and teachers			+		+					
		Learning strategies/styles			+		+					+
		Multiple intelligences			+		+				+	
		Learner autonomy				+	+				+	
	Teachers and teacher	Professional identity										
	variables	Teacher roles			+							+
		Reflective teaching				+	+		+		+	
		Teacher language			+	+	+		+		+	+
		Teacher development	+	+	+		+				+	+
	Technology	Use of technology	+			+			+	+		
Pedagogical	Skills and	Integrating skills		+			+	+				
content Irrowlodeo	components	Literacy skills				+	+	+			+	
RIIOWICUBC		Teaching listening	+	+	+	+	+	+	+	+	+	+
		Teaching reading	+	+	+	+	+	+	+	+	+	+
		Teaching speaking	+	+	+	+	+	+	+	+	+	+
		Teaching writing	+	+	+	+	+	+	+	+	+	+
		Teaching vocabulary	+	+	+	+	+	+	+	+	+	+
		Teaching phonetics/sounds	+	+	+	+	+	+		+		+
											(coi	ntinued)

# Table 31.3 (continued)

Table 31.3 (conti	inued)											
Roberts' knowledge bases	Categories	Components	A	В	C	D		ц	U	Н	I	<b>.</b>
		Teaching grammar	+	+	+	+	+	+	+	+	+	+

# 31 Representation of Teacher Knowledge Base ...

learners. For instance, after explaining the logic behind post-listening, the TTC introduced some techniques for this phase of instruction:

Therefore, to extend students' thinking, you can ask them to talk about the topic, summarize the information, answer your detailed questions, ...

The other skills, however, were not addressed in all institutes. Teaching Phonetics and Sounds, for example, was part of the TTCs in eight institutes, and Literacy Skills and Integrating Skills were covered by four and three institutes, respectively. The second most commonly represented component in the TTCs is curricular knowledge in that Methodology and Lesson Planning were covered by all institutes. More specifically, all institutes devoted one session to Planning Lessons. For example, the TTC of institute A provided several examples to increase teachers' understanding of the objectives of lessons.

The aim of this lesson is to familiarize students with the concept of technology and the aim of the writing section is to introduce techniques for increasing the unity of paragraphs.

Other institutes also included sufficient information to develop teachers' lesson planning skills. Moreover, almost half of the institutes allocated some sessions to Choosing Materials, Using Authentic Materials, and Syllabus Design. The next type of knowledge base that was given great weight in the TTCs was General Pedagogic Knowledge, which is represented by Classroom Management. As shown in Table 31.3, two components of this category, namely Teaching Aids and Classroom Management, were taught by all institutes, though the other components (Classroom Arrangement, Critical Moments during a Lesson, and Classroom Organization) were addressed by few institutes. The last type of knowledge on the list is Contextual Knowledge, which includes Learner Variables. The analysis of the TTCs suggest that none of the components of this category was fully embraced by the institutes. In fact, none of the institutes allocated a complete session for this component. Learner-Centeredness, which rests at the top of this type of knowledge, was covered by only four institutes. More interestingly, only limited knowledge was provided about this component. On the whole, the four institutes simply highlighted the need for English classes to be learner-centered. For example, the TTC of institute H points out that.

It is important to place students at the center of learning. They should take responsibility for their learning. They should not be treated as passive recipients of knowledge.

As for the remaining components, Learners' Strategies, Multiple Intelligences, Learner Autonomy, Learners' Goals, and Learner Variety were covered by three or fewer institutes.

#### **Discussion and Implications for Teacher Education**

A teacher education program has three dimensions (Freeman, 2009): substance, engagement, and influence/outcome. Substance, the aim of this study, refers to

content as knowledge and the process of learning during the program. In this study, three aspects of SLTE courses were investigated, namely time allocated to TTCs and the components of the teacher knowledge base covered. As to time allocation, it ranged from 30 to 60 h. Although this seems to be the common practice in TTCs in private language institutes in Iran, it may not create enough space for covering different components of the teacher knowledge base, pre-service teachers' microteaching, peer observation, and other related tasks. This time allocation, compared with at least 120 h of study in CLETA (Cambridge Assessment English, 2021), can be critical when these prospective teachers have not participated in any certificate course or long-term university programs such as TEFL or TESOL. Also, the time allocation varies widely from one institute to another. This, in turn, may impact the weight given to teacher education and time allotted to each component of the teacher knowledge base.

Besides the length of TTCs, this study analyzed the content of the TTCs to unravel what components of the requisite teacher knowledge for effective teaching are included in these courses. The findings showed that ten categories of the teacher knowledge base were addressed, albeit to different degrees, in the TTCs of the institutes. Among these components, Methodology and Instruction, Planning Lessons, Classroom Management, and Skills and Components were parts of most institutes' TTCs. These components constitute the core of effective teaching and hence are among the main domains in Danielson's (2007) framework for teacher quality assessment. In this framework, Planning and Preparation (domain 1) refers to Planning Lessons in our study. Domain 2, namely Classroom Environment, is partly covered in the component of Management in our study. Instruction, as the third domain in Danielson's framework, was included in the TTCs under the rubric of Methodology and Instruction. However, whereas Danielson' domain embodies communicating with students, using questions, engaging students in learning, and assessing instruction, this domain in the TTCs were focused on methods of language teaching, monitoring learning, feedback and interaction. This focus is expected in TTCs for language education where methods of teaching, corrective feedback, and classroom interaction seem to be more closely intertwined with the conception of effective teachers. Danielson's model is about good teachers and teacher observation in all areas of education; however, in language education, concepts such as teaching methods lie at the center of the knowledge a teacher needs to acquire. The history of language teaching is shaped and analyzed in terms of paradigm shift in teaching methods, as reflected in the shift from the methods era to post-method (Kumaravadivelu, 1994, 2006) or changing tracks "(1) from communicative language teaching to task-based language teaching, (2) from method-based pedagogy to postmethod pedagogy, and (3) from systemic discovery to critical discourse" (Kumaravadivelu, 2006, p. 57). Corrective feedback is another core element specific to teacher education. It counts in second language acquisition irrespective of the method adopted by the teacher. As such, teachers' beliefs and practices of corrective feedback and the provision of appropriate (ZPD-sensitive) feedback has regained significance from a sociocultural perspective. It follows that TTCs predominantly attend to those components of the teacher knowledge base.

Three domains of effective teaching, as specified by Danielson (2007), have featured in the TTCs scrutinized in this study. However, teacher responsibilities, as the fourth domain, have no place in any of these TTCs. Teacher education should deal with not only lesson planning and instruction but also the teacher as the main agents of teaching. Consequently, educating teachers about their responsibilities is integral to successful teacher education. Teacher responsibilities, according to Stronge and Hindman (2006), consist of (1) enthusiasm, (2) caring; fairness and respect, and positive relationships, and (3) reflection. Providing a more comprehensive framework, Danielson (2007) classifies these responsibilities into six components: (1) Reflecting on Teaching, (2) Maintaining Accurate Records, (3) Communicating with Families, (4) Participating in a Professional Community, (5) Growing and Developing Professionally, and (6) Showing Professionalism. These responsibilities are implicated in teachers' professional development and effective teaching. They contribute to teachers' identity construction, agency, reflective practice, and interpersonal relationship. The absence of these dimensions, constituting domain 4 in Danielson's model, in almost all TTCs can hinder teachers' both teaching practice and professional development.

The third purpose of this study was to investigate the realization of the teacher knowledge base, as framed by Roberts (1998), in the TTCs enacted in the institutes. The findings revealed that only pedagogical content knowledge was largely reflected in the institutes' TTCs. This component comprises knowledge about teaching the four language skills and components and is included in many certificate programs such as CELTA (Cambridge Assessment English, 2021). Regarding other components of knowledge in Roberts' framework, curricular knowledge was almost absent in all the TTCs despite being recognized as one of the main constituents of the teacher knowledge base (Bagherzadeh & Tajeddin, 2021; Christie, 2012;). Teachers' effective teaching is contingent on their knowledge about how to organize, deliver, and modify the contents of the curriculum (Abell, 2008). Underrepresentation of this knowledge in TTCs may cause teachers' ineffective use of teaching materials. As another component in Roberts' model, contextual knowledge refers to knowledge about teachers (e.g., their roles, identity, reflection, and development) and learners (e.g., their goals, expectations, autonomy, and learning strategies). This knowledge creates more spaces for a pedagogy of particularity (Kumaravadivelu, 2001), which entails sensitivity to "a particular group of teachers teaching a particular group of learners pursuing a particular set of goals within a particular institutional context embedded in a particular sociocultural milieu" (p. 538). As the idea of pedagogic particularity is aligned with the situational understanding for meaningful pedagogy (Elliott, 1993), it cannot be constructed without teachers' contextual knowledge. General pedagogic knowledge, as another component in Roberts' framework, is partly involved in the TTCs. Whereas motivation, classroom management, and teaching aids constitute the teacher education program in most of the institutes, other dimensions of this knowledge such as class arrangement, critical moments during a lesson, and classroom organization are rarely placed in the program. These dimensions of general pedagogical knowledge are among cross-curricular principles and strategies needed to create and optimize teaching-learning situations. Due to its

significance, general pedagogical knowledge has been investigated for its relationship with teachers' self-efficacy and instructional practice (e.g., Depaepe & König, 2018).

Our findings about the representation of teacher knowledge base in teaching education programs across language institutes have implications for teacher education. As a rather small period of time, about 30 h, is allocated to the construction of the teacher knowledge base in many institutes, two procedures could be adopted to heighten this knowledge base among teachers. The first procedure could be aimed at extending the time span in pre-service teacher education to create more spaces for teachers to develop their knowledge base. However, continued professional development entails the provision of teacher education during the teachers' teaching career as well. Accordingly, as the second procedure, further courses, workshops, and teacher collaborative development activities could be utilized to help teachers deepen their knowledge in view of their situated practice and knowledge-practice nexus.

Another implication relates to TTCs' underrepresentation of many components of the teacher knowledge base in view of the frameworks proposed by Danielson (2007) and Roberts (1998). As this underappreciation can be a source of poor teaching practice, low self-efficacy, and poor professionalism. To prevent these negative consequences, a more inclusive teacher education is needed in these institutes to help teachers construct their knowledge base for effective language teaching. As described in the study section above, teacher responsibilities/characteristics, as one of the four domains of teacher quality, were not embodied in the TTCs. In view of this deficiency, teachers need more education about main responsibilities in their profession career such as being caring, fair, and reflective and agentive in their professional development. Similarly, the poor coverage of many components of Roberts' knowledge base could be remedied by raising the awareness of policy makers and teacher educators about the restricted conceptualization of the requisite knowledge base in TTCs and limiting it to pedagogical content knowledge. Effective principled pragmatism (Kumaravadivelu, 1994) for theorizing from practice and practicing what has been theorized entails contextual, curricular, and general pedagogical knowledge.

#### **Conclusion and Directions for Further Research**

In this chapter, we briefly reviewed teacher education in Iran and the conceptions and models of the teacher knowledge base. This knowledge base constitutes the backbone of the substance for teacher education. Although what constitutes this substance has been conceptualized over time, the recurrent components of this knowledge included in certificate programs and in the models of the teacher knowledge base, teacher observation, and teacher quality assessment are, inter alia, content knowledge, pedagogical knowledge, curricular knowledge, and contextual knowledge. These components contribute to teacher effectiveness in planning and preparation, creation of positive classroom environment, instruction, and fulfillment of professional responsibilities, which, in turn, make teaching practice effective and professional development realized. Notwithstanding the importance of this knowledge, many language institutes in Iran underrepresent the components of this knowledge except for a few ones such as pedagogical content knowledge. Also, teacher responsibilities, which greatly counts in teacher quality, are almost absent in teacher education programs. These two sets of evidence indicate inefficacy of teacher education in language institutes as main informal, non-state centers for language teaching in view of deficient language education in the formal high school education system.

The review of literature on teacher education in Iran and the teacher knowledge base, coupled with the study reported in this chapter, indicates further areas for research on the teacher knowledge base. Our study was focused on the inclusion of this knowledge in the context of Iran. Future studies could investigate the realization of this knowledge base in other countries or comparatively across countries. Second, we analyzed teacher education programs in terms of the substance/knowledge base. Pre-service teacher engagement in learning this knowledge base, as another component of teacher education, could be investigated. Also, outcomes, as the third constituent of teacher education, could be addressed to provide insight into the influences of this knowledge base on teachers' teaching practices. Finally, we investigated the program documents. In the future studies, the perceptions of teacher educators, supervisors, and prospective teachers about these programs could be investigated.

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# Chapter 32 The Need for National Professional Development to Support Sustainability Among Teachers in Kuwait



#### Fatimah Al-Hashem

Abstract The continuous professional development (CPD) program was one of the core deliverables under Component 2 (Effective Teaching) of the School Education Quality Improvement Program (SEQI 2) that was part of the World Bank education program between the years 2016 and 2019. The CPD program was intended as a set of national teacher policies and regulatory frameworks to raise the effectiveness and motivation of the teaching profession in the State of Kuwait. The program linked to teacher standards and teacher career paths. The development objective is grounded in the five-year Kuwait National Education Development Plan. It is based on the conceptual model for integrated education reform. The professional development project is analyzing the current status of training methods for teachers. This chapter reviews the current situation and provides ways to restructure the professional development mechanism and general guidelines for sustaining for all teachers in the field.

**Keywords** Professional development · Kuwait · Regulatory framework · Leadership skills · CPD

Continuous professional development (CPD) is a process of ongoing learning between teachers and other related staff to improve their teaching skills, confidence, and leadership capabilities to raise student learning (Darling-Hammond et al., 2017). CPD entails individual, national, district, and school system responsibility to maintain sufficiently high standards of professional competence to improve student learning. CPD is considered an integrated and sequenced learning process across the teaching career. CPD begins with preservice education, followed by the induction phase in the first few years of teaching, and then ongoing learning for teachers not a series of events. CPD opportunities include both formal and informal development activities, comprised of a set of required registered/core courses taken each year and through different stages of the teacher career (Darling-Hammond et al., 2017).

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These could be modular and linked with professional recognition and/or promotions. These could be done at national or district training sites or at schools, with training assistance from the ministry, the private sector, and/or nongovernmental organizations (NGOs). Additional required professional learning hours would be based on teacher-identified needs (mostly taken as part of school-based work). These could be taken as part of professional learning teams at schools, formal mentoring, and coaching within schools/clusters, professional days at the start of term, or access to Internet-based resources and discussions. Scheduled times should be the prime focus of continuous professional development activity. The decision of what types of support networks and professional training are to be established ought to be made in direct consultation with staff within the schools and/or school clusters to match their needs.

#### **CPD in the Education System of Kuwait**

Teachers share a significant responsibility in preparing young people to lead successful and productive lives. The Kuwait CPD Framework reflects and builds on international evidence that a teacher's effectiveness has a powerful impact on students, with a broad consensus that teacher quality is the single most important inschool factor influencing student achievement (Aljassar & Altammar, 2020). When CPD is designed well, these opportunities help teachers master content, hone teaching skills, and address challenges faced in the classroom. This CPD framework provides teachers, teacher educators, teacher-related organizations, and professional associations with a structured pathway to develop professional skills incrementally and with due recognition across the teaching career. The framework is organized across key career stages and guides the preparation, support, and professional growth of teachers. The stages reflect the continuum of a teacher's developing professional expertise from undergraduate preparation to becoming an exemplary classroom practitioner and a leader in the profession. The stages are also linked to professional teacher standards to guide professional development, teacher appraisals, professional recognition, and promotions. The standards represent increasing levels of knowledge, practice, and professional engagement for teachers. Progression through the stages describes a growing understanding, applied with increasing sophistication across a broader and more complex range of situations.

# **Review of Current Provision and Recommendations** for Reform

In current thinking, the professional development of teachers is viewed as a continuum from preservice period, to induction, to in-service teacher CPD, and the need to maintain the "connective tissue" between these phases is stressed (Feiman-Nemser, 2003). This review chapter (1) describes each of these stages of teacher education in Kuwait, (2) holds them up to the mirror of international good practice in teacher preparation and development, and (3) makes recommendations aimed at bringing them more into line with international norms for teacher education. This chapter also identifies the research-based conditions (a) for the successful delivery of in-service teacher CPD and (b) for the diffusion of innovations within systems. It is hoped that this review, with its analyses and recommendations, can be the first step toward the provision of a road map for the career-long professional development of teachers in Kuwait and a basis for the formulation of policies on which a teacher education strategy and a national teacher framework can be built.

## **Preservice Education of Teachers in Kuwait**

Ease of access, large annual intakes, and failure to attract high-caliber students are characteristics of preservice teacher programs in Kuwait (Alenezi, 2018). Academic entry requirements for teacher education are low compared to other professional areas and there is little evidence of coherent policy or planning aimed at matching intake to the demand for teachers in the education system. Figures for the years 2018 and 2019 compiled by the Statistical Analysis Group (2019) show a dramatic increase in intake to teacher education. Currently, College of Basic Education has in the region of 20,000 students while Kuwait University's College of Education has 7000. And, there is pressure to increase the intake even further. Growth in student numbers, however, has not been matched by increases in faculty size. Such developments in any clinically based profession will inevitably impact negatively on the quality of the training provided since individualized mentoring and coaching is an indispensable requirement in all professions that provide a service to the public. For this reason, professionals cannot be mass produced, and the higher the student numbers, the lower the quality of the training tends to be. Neither can professional education students be prepared in large lecture halls like arts and humanities students, who study academic subjects but who do not intend to be teachers and, therefore, do not require any individualized clinical training (Supreme Council for Planning & Development, 2020). Preservice programs in Kuwait reflect the approach to training that obtained in teacher education in most countries up to recent times and still persist, especially in developing education systems. In a review of 93 empirical studies on such programs, Wideen and Grimmett (2013) concluded that the implicit theory underlying them belief that learning to teach is a process of acquiring propositional/theoretical knowledge about teaching in college/university and applying it later in schools. As a result, insufficient attention was paid to the need to integrate the different components of preservice programs into a coherent whole or to help students bridge the gap between theory and practice. What Feiman-Nemser (2003) said of traditional preservice programs in many countries appears to be true of the current approach to initial teacher training in Kuwait:

The typical preservice program is a collection of unrelated courses and field experiences. ... [It] is a weak intervention compared with the influence of teachers' own schooling and their on-the-job experience. ... Conventional programs are not designed to promote complex learning by teachers or students. (p. 30)

This traditional approach is out of keeping with current thinking and good practice in teacher preparation.

The teaching practicum in both the College of Basic Education and Kuwait University preservice teacher programs takes place in the final semester. Normally, it entails two weeks of observation, five weeks of coteaching with the classroom teacher, and five weeks of full-responsibility teaching of up to two lessons per day. In response to National Council for the Accreditation of Teacher Education advice, KU's College of Education added a further 200 h of classroom observation in the earlier semesters.

The postponement of the main teaching practicum to the last semester of preservice teacher programs is not in keeping with current good practice. Current thinking is based on a different understanding of how theory effects practice and has led to different approaches to practicum experiences in several professions, including teaching (Almanea, 2018). The traditional notion that learning to teach is a matter of acquiring theoretical or "action-less" knowledge about teaching in college/university and applying it subsequently in classrooms has been superseded by a research-based belief that effective professional learning needs to be context-based and mastered in situations similar to those in which it will subsequently be exercised (Almanea, 2018). As experts see it, the recurrent challenge of all professional learning is negotiating the inescapable tension between theory and practice and, through extended experience in the workplace, developing the "educational connoisseurship," the "pedagogical tact and ingenuity," and the "artistry" to connect the former to the latter in one's own teaching situation (Darling-Hammond et al., 2017). This requires a type of understanding of, and "feel for," the concrete situation that cannot be taught effectively in college but must be developed through prolonged, well-mentored placements in contexts similar to those in which they will be exercised in real life (Darling-Hammond et al., 2017). For this reason, the practicum experience in preservice programs in several countries now comprises up to 25% or more of total program time and is spread across the years of professional training.

This approach also requires that all components of all professional programs (including teacher education) are integrated around the fulcrum of the practicum, feed into it, and grow out of it. As Feiman-Nemser (2003) puts it, "Knowledge for teaching cannot remain in separate compartments if it is going to be usable in

practice." As knowledge from various courses and sources must come together in actual teaching, it must be brought together (i.e., integrated) in teacher education.

Establishing and maintaining the critical connection between coursework and clinical work in teacher preparation programs is a perennial challenge for teacher educators in all countries (including Kuwait) since it requires a reappraisal of currents approaches, a reassessment of the relevance to practice of all the components of current preservice programs, and the spreading of teaching practicum experiences across entire programs. It will also require a level of mentoring for student teachers that, along with coaching in teaching *tactics*, will also develop the teacher *thinking* of trainees in relation to the complex issues of teaching and learning that are encountered daily in classrooms and that underlie the Kuwait national curriculum (World Bank, 2014). This will demand an in-depth understanding on the part of faculty, mentors, ministry, and teaching practice supervisors of the nature of profession and what professional education entails. It will also require a thorough grasp of the rationale for the entire preservice program and of what developing and mentoring a professional student involves.

#### **Who Trains Teachers?**

Since trainers are the main conduits through which up-to-date knowledge and expertise are channeled into all professional areas, pedagogical capacity building for education faculty, and for all involved in the mentoring and supervision of student teachers, is an indispensable requirement for the reform of both teacher education and teaching in Kuwait. Authorities on development education have long been saying that, if attempts to reform education in developing country schools are to be effective, they would have to be linked to improvements in the training of teachers and that the pace of change in teacher education would determine the speed of reform in education systems (Alazmi & Al-Mahdy, 2020). The critical question then becomes: Who will train the trainers? In Kuwait, as in other developing systems, this question will have to be given very serious consideration.

Another issue that merits urgent attention is program accreditation. When carried out according to the norms of good international practice, accreditation has proved to be one of the most effective instruments of quality assurance in universities and colleges. It normally involves an in-house evaluation of the program in question, followed by an external evaluation carried out by a body comprised of local and international experts in the specific area under review (e.g., teacher education) or, alternatively, by one of the international bodies that specialize in accreditation. The process requires transparency, full access to information on all elements of a program, and the provision of all course outlines by the faculty members involved. The final verdict is based on the norms of international good practice in teacher preparation. Where necessary, time is provided for faculties to rectify aspect of programs that are out of date and/or need remediation (World Bank, 2014).

### **Teacher Induction in Kuwait**

The shortcomings of traditional preservice programs, and the lack of readiness of their graduates to begin teaching, are evident in many countries, including Kuwait. This was confirmed across the entire spectrum of those interviewed from within the colleges of education, the Ministry of Education, the schools, and by the technical supervisors. There were indications on the part of some teacher education personnel that the current levels of practicum preparation for student teachers in the colleges of education are adequate, and in keeping with what is required of them at the preservice level, since the immediate training for actual teaching has its rightful place in post-graduation induction and in-service courses. Current provisions for inducting new teachers reflect this thinking.

The new teacher graduates are assigned to schools by the Civil Service Commission. They usually engage in classroom observation for two weeks and get a two-week orientation course by technical supervisors at the district center (Alhashem, 2021). After that, they get varying levels of assistance in their own schools depending on the professional commitment and goodwill of principals, head teachers, and other teaching colleagues. Viewed from the perspective of good practice in teacher induction in other education systems, the current approach in Kuwait needs to be reconceptualized, redeveloped, and extended over a longer period of time (Tracey & Florian, 2016).

The handling of induction for teachers should fit in with and reflect the continuum of professional development that should characterize all professions. Since entering a profession entails a commitment to becoming a student of one's chosen area, initial training must be regarded as the first phase in a lifelong pursuit of well-informed, upto-date, and competent service. Preservice programs, therefore, should be thought of and planned as the first phase of a professional development continuum that spans the entire training and working lives of all professionals, including teachers. Traditional preservice programs in most countries (including Kuwait), however, are thought of and treated as standalone and self-contained units/phases and lack the connective tissue that should bind them to the follow-on components in the continuum of teacher professional development (i.e., induction, in-service, and CPD) (Tracey & Florian, 2016). In Kuwait, preservice trainers have no institutional involvement in or formal input into the professional development provided for their graduates at either the induction or CPD levels, though some individual faculty may be invited to contribute. Such an approach runs counter to the concept of a continuum of professional development for teachers, results in fragmentation, and in effect segments the pedagogical expertise available in the country into separate phases of professional development. One could scarcely defend a situation in the medical profession where the expertise of faculty in medical institutions was confined to the preservice training of doctors.

#### **In-Service Teachers and CPD**

Formal responsibility for the provision of in-service teachers and CPD for teachers in Kuwait rests with technical supervisors (Alhashem, 2021). Supervisors for each subject produce 18 plans on yearly bases for training of teachers (Alhashem, 2021). The training is delivered either through one-week courses in one of the training centers or through one-off workshops in district centers or in schools.

This training is largely subject-related. It is determined in a top-down manner by the supervisors with little or no consultation with teachers as to their needs. The evidence from a broad range of interviewees strongly suggests that the mode of delivery tends to be formal and lecture-oriented and does not normally entail much hands-on involvement of the participating teachers.

The training is provided under the auspices of the Training and Development Department (TDD). It provides training facilities for all Ministry of Education (MoE) employees, including teachers, but does not determine the content of the training. Currently, the TDD has three training centers with plans to open two more in the coming year and, ultimately, to have a training center in each of the six districts.

Each year provision is made to enable 17% of teachers to avail themselves of training (Alenezi, 2018). Training is not mandatory except for those identified by supervisors as in need of it. In their case, the only sanction for failure to attend and/or inability to improve their teaching is transfer to administrative positions within schools and loss of the extra stipend paid to teachers. It is clear that participation in extended training courses is rare for teachers and that some teachers may never participate in one.

One-off workshops are arranged by supervisors on an ad hoc basis and are delivered in district training centers and/or in a central school convenient for teachers from a cluster of schools. Like the training courses, these too are generally subject-related (Aljassar & Altammar, 2020; Alsaleh, 2020).

Interview evidence suggests that the quality and relevance of supervisor-provided training courses and workshops is mixed and that they tend to be theory-oriented, general and generic in orientation, and inadequately targeted at the pedagogical content knowledge relevant to the effective teaching of individual subjects and the needs of the teachers involved (Aljassar & Altammar, 2020). Of such isolated inservice teacher inputs Fullan (1990) commented: "Nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change in practice when teachers returned to their classrooms." (p. 14).

In-service training is also provided within schools by principals, vice principals, department heads, and other teaching colleagues. Because this in-house training tends to be planned in consultation with teachers, it is more likely to respond to their identified needs and to be more successful in meeting those needs. How well it is arranged varies from school to school. Provision in schools with good principals and well-informed department heads is impressive.

Kuwait's teachers' union, whose membership represents about 27% of teachers, also provides in-service/CPD courses which are open to both members and nonmembers. Some courses are provided in cooperation with Kuwait University (World Bank, 2014).

It is clear from the foregoing that CPD provision is piecemeal in nature and that the various inputs are generally unrelated. This matter needs attention if reform is to be effective in this area (Alsaleh, 2020).

### Method

A qualitative method research design was adopted in this study. As the study aim is to understand the challenges facing the education system in Kuwait, this approach was deemed most appropriate for generating broad and deep insights into the specific issues that need to be addressed to improve learning outcomes and enhance the educational system's overall performance. Moreover, this strategy allows for triangulation of data obtained from multiple sources.

Between years 2017 till 2019, many as part of data collection, consultation sessions with representatives from all six school districts, Private sector, and Supervision (2 districts a day), each lasting for two hours. The information was obtained from participants representing teachers, department heads, principals, and assistant principals who attended the focus group sessions for six school districts and the private education sector. These sessions starting with an overview of the CPD framework (40 min) followed by prepared the core questions (Table 32.1) for discussion based on the earlier CPD discussions and reviewed the collected data. The total of participants in the sessions was 127 from six school districts and the private education sector. As the sessions went on, we noticed that many of the expressed views started to sound familiar, indicating that we had reached a data saturation point.

#### Findings

The information summarized below was obtained from 127 participants representing teachers, department heads, principals, and assistant principals who attended the focus group sessions for six school districts and the private education sector about the current status their perspective related to a proposed model of CPD in Kuwait.

#### Purpose of CPD in Kuwait

Many teachers reported the purpose of CPD should be reflected on student needs; also, many teachers mentioned that they do not know how to deal with cases related

<b>Table 32.1</b>	Discussion	main	ideas	and	elements	of	the	focus	group	р
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- Ensure all teachers have required skills to teach effectively—including subject knowledge, pedagogy, and technology
- · Build teacher skills to think creatively to adapt to student needs and deal with work challenges
- Promote responsibility among teachers for their own lifelong professional learning (i.e., not just for remediation)
- · Any disagreements with these key ideas?
- Is there anything that is missing? Any additional comments?

#### Types of CPD

- Registered Training Courses
  - Mandatory, e.g., new competency-based curriculum pedagogy; how to use online PD profiles/the portal
  - Teacher Choice-from central, district or school-based courses/activities
- · Collaborative Learning with groups of teachers-school-based
  - Structured-mentoring, peer coaching, demonstration lessons, etc.
  - Group planning and learning

#### Number of PD hours

- · Further undergraduate and postgraduate education
- · Minimum of 100 h over five years of registered PD activities
- Of the above hours, up to 80 h to be teacher-identified professional learning, and including school-based/working in professional learning teams (to promote teachers taking responsibility for their own learning)
- Extra hours in the first 1–2 years of teaching (e.g., up to 30 h total per year?)
- · Any disagreements with these points?
- Is there anything that is missing? Any additional comments?

#### **Identifying PD needs**

- Combination of mechanisms, including:
  - Use of teacher self-assessment
  - Observation of teacher classroom practice by mentors, supervisors
  - School improvement units to review student results and identify areas where students need more help
- How do you currently identify and convey your PD needs? Does this system work? Any suggestion for changes to this process?
- Is there anything that is missing? Any additional comments?

#### **Endorsed providers of CPD**

- MoE, PAAET, and nongovernment sector can apply to be a provider via an application process
- · Providers to follow set principals and established criteria
- · Process to review process for unsuccessful applicants
- · Providers, courses, and their evaluations recorded on the online portal
- · Teacher performance standards could guide course development
- Any disagreements with these points? Is there anything that is missing?

(continued)

#### Table 32.1 (continued)

#### Purpose of CPD

#### Monitoring and evaluation-teachers

- · Proposed different persons to provide pedagogical support (e.g., mentor) and evaluations
- Use of teacher portfolio
- Teachers to monitor own progress in meeting PD requirements via online MoE account (e.g., types of courses completed, number of courses completed, number of hours completed)
- Principals/supervisors/heads of department/PD delegate provide access to an account to view information relevant to teachers at their school or within identified network
- · Providers to upload participation data on online platform
- Monitoring impact of learning?
- Is there anything that is missing? Any additional comments?

#### Monitoring and evaluation of CPD programs

- An advisory committee to provide strategic guidance to the MoE and PAAET for professional learning for teachers
  - Based on teacher input, evaluation data, and current research
- Will make recommendations to the MoE:
  - The endorsement of providers
  - Quality assurance measures to ensure all registered PD is monitored and evaluated, and providers operate within a continuous improvement model
- Is there anything that is missing? Any additional comments?

#### Interactive database/one-stop portal

- Is a new system required, or can the current system be adapted?
- Who will manage development, hosting, and maintenance?
- · Any disagreements with the concept of an interactive portal?
- · Any additional comments?

to students with special needs, as teachers felt underprepared to teach them or deal with minor cases. This aspect requires more attention as the number of students in that category is increasing. Another purpose that should be considered was related to courses on professionalism and professional ethics. Participants noted that teachers often know their rights but not their responsibilities as much as this matter was a particular concern for new teachers. Also, teachers said that CPD is now voluntary and should be mandatory. Participants from the private education sector noted that training/PD in their schools is uneven. In science for instance, only department heads DH get the PD, then return to share the new knowledge with teachers.

The evidence indicates that teachers experience much more powerful learning when in-service teachers professional development is related to their identified/felt needs, is directly connected to their work with students, is linked to subject matter and the concrete tasks of teaching as outlined in national curricula, is organized around problem-solving, and is sustained over time by regular contacts and inputs. Just as teaching should be student-centered, so CPD should be teacher-centered.

# Types of CPD

Most participants were positive about teacher collaborative learning. How it is done varies across schools and districts. Teachers have proposed the concept of reconceptualization and reconstruction of the teaching practicum in line with current good practice and its extension across the spectrum of preservice programs. The quality of mentoring for student teachers will be a critical determinant of the effectiveness of a reconstituted practicum.

Pedagogical capacity building for relevant faculty, mentors, and others involved will be a critical requirement for effective reform of the practicum. This will require the integration of content knowledge and pedagogical content knowledge within each subject area.

Pedagogical capacity building for faculty members leading the program integration process will greatly enhance its prospects for success.

### Number of PD Hours

There was a consensus among participants that the number of PD hours is not important and should not be fixed. Rather, there should be a range and PD should be determined by teachers' needs. Most thought that 100 h over five years sounded reasonable. District teachers thought that they already exceeded this number by far. There was consensus among participants that the range of hours is subject to teachers' needs (e.g., new teachers might require more support and hours).

### Identifying PD Needs

Participants rejected self-assessment as a tool to identify needs. This is because many cited hesitations on the part of teachers to claim their true needs, as this might be seen as an admission of weakness. They are not likely to ask for help in a specific area for fear of stigma. Needs are set by supervisors at the district level/MoE. Supervisors survey teachers yearly and select training for the whole year. General education sets the agenda for these activities during the school year. Participants believe that this is a mechanical exercise performed by supervisors using old forms and does not take into consideration teachers' needs. Department heads claimed, and teachers agreed, that they are the best source of needs identification as they work closely with teachers on a daily basis. Some thought that principals are not qualified to make these judgments as they focus on the façade (classroom order, use of PowerPoint, etc.) but not the quality of teaching during their observations (rote vs. meaningful learning). Most participants refused to link PD needs with students' achievements, which are impacted by other factors (such as home environment, numbers of students

in classes, social issues, etc.). Needs are currently set by supervisors at the district level/MoE. Supervisors survey teachers yearly and select training for the whole year. General education sets the agenda for these activities during the school year. Participants believe that this is a mechanical exercise performed by supervisors using old forms and does not take into consideration teachers' needs. Participants favored having Department Heads identify teacher needs. Participants advised against linking teacher evaluation or identifying PD needs to student performance. While student performance is dependent on many contextual factors including family matters, there is still merit to look at student results and if teachers need further support in teaching their subjects, and then this should be provided in a targeted way. School Improvement Units personnel might be able to assist with this data.

#### **Endorsed Providers of CPD**

Many PD services are being currently offered without quality assurance policies in place. This risks undermining the entire reform effort and results in loss of time and money on the part of participants/participating schools. Some of the criticism had to do with the PDs being too theoretical to help them in planning, or with being dry or redundant with previous PDs, or with being too generic to address their current needs. Most teachers reported that they are not involved in in terms of their professional needs but think that scrutiny of providers is a positive factor. Also, all agreed that more regulations are needed to ensure quality as the number of providers with low quality is rampant. They stated that MoE does not have such system and assessment of PD providers is currently nonexistent. Almost all (except supervisors) stressed that supervisors' wrath, but an outside body to govern the quality of PD providers is an important idea.

#### Monitoring and Evaluation—Teachers

All teachers claimed that department heads and principals are the best evaluators of teachers and that supervisors should not be given the evaluation task as they rarely meet with teachers. Also, participants explained that the evaluation forms used by department heads are unclear and fail to distinguish between effective and low-performing teachers. Participants said they wished evaluations were done with advanced tools that offer more precision and objectivity.

On the other hand, participants viewed the concept of mentoring as a good idea, but MoE does not recognize mentors. Instead, department heads are considered quasi-mentors. The mentoring system would cause rivalry among teachers in schools unless clear guidelines were set for the qualifications of and process for selecting the mentors, participants cautioned. In short, participants wanted mentors but only if such a program came with well thought-out implementation.

#### Interactive Database/One-Stop Portal

All participants said they wished there were a system where teachers' documents are archived, specifically PD records and copies of certificates of attendance and appreciation could be housed permanently and can be tracked from year to year. Currently, the principal's office compiles basic data on teachers and sends it electronically to MoE at the end of the year; only a paper file is kept at the school. Teachers can see their own record but cannot participate in editing it. Teachers participating in the interviews said if a new system is developed, they would prefer a third party to manage it.

### **Discussion and Conclusion**

It is imperative to ensure that all teachers have the required skills to teach effectively, including subject knowledge, pedagogy, and technology; build teacher skills to think creatively to adapt to the needs of all students and deal with work challenges; and promote responsibility among teachers for their own lifelong professional learning (i.e., not just for remediation). Therefore, there is lack of clarity about what constitutes teacher collaborative learning. This needs to be clearly spelled out and a variety of acceptable formats must be described and illustrated.

Interview evidence from multiple sources across the teaching/teacher education spectrum points to a lack of coordination across professional development programs and between providers. Until this is rectified, the expertise that exists among Kuwait's teacher educators will not be utilized to best effect and, as a result, the prospects of effective reform will be diminished.

Fifty years of research evidence on innovative implementation, collated by Everett Rogers (2003) and others, has identified the following five conditions as the main determinants of success:

- 1. The innovation is perceived by users (teachers, teacher educators, ministry personnel) as better than the current approach.
- 2. It is perceived by them as compatible with their experiences, values, and needs.
- 3. New approaches that are simpler to understand and apply are adopted more rapidly.
- 4. An innovation that can be observed, tried out, and tested poses less risk to the potential user and, consequently, is more likely to be adopted.
- 5. Visible, positive results of an innovation lower uncertainty on the part of potential users and raise the chances of success.
These findings have the following implications for strategic planning aimed at the reform of teacher education, teaching, and learning in Kuwait:

- Users (teacher educators, teachers, ministry personnel) should be made partners in the planning, adaptation, and redevelopment of innovations/reforms—a major challenge in Kuwait due to the traditional authority and responsibility structures that have evolved within the education sector.
- Peer networks/communities of practice should be used to spread the innovation and to counteract the fears and uncertainty of potential users.

There are many types of continuous professional development activities which can help teachers at every stage of their career and suit their own interests and availability of time. The bulk of these work best within professional learning teams. Professional learning teams typically are comprised of two or more teachers working on common subject areas, grade levels, or other areas of interest. These teams can contribute significantly to schools becoming learning communities by fostering a culture of collaboration and collective responsibility for the development of effective teaching practices. MoE needs to carefully plan the process whereas as specialized team will work to achieve their learning objectives. This process must include strategies for collecting student outcome data, the preparation of action plans, procedures for implementation, and methods of evaluating the impact of their work on teacher practice and student learning. MoE also need to be aware of requirements for successful teamwork, including someone with high-level leadership skills, time to meet regularly and reflect in a meaningful way, and support from the school leadership team. Last, developing the trust and capacity to work collaboratively is very important for the success of professional learning teams. It takes time and persistence. Teachers must be prepared to experiment, take risks, make mistakes, and suffer setbacks.

# Recommendations

In light of the foregoing, there is need for a consultative forum on preservice programs and on the continuum of teacher professional development, for faculties in the colleges of education and other relevant stakeholders in the MoE and elsewhere. Its aim would be to establish a vision for the future development of preservice programs within the context of a teacher education continuum and in keeping with current good international practice in teacher preparation and development.

Following the establishment of a clear vision of what needs to be done, the approach to induction can take different forms and draw on the many practical examples of such provision in other countries.

In any review of teacher PD, it must be remembered that, until the shortcomings of preservice teachers are rectified, provisions for induction, in-service teachers, and CPD will, of necessity, have to be remedial in nature. By concentrating instead on professional development, teachers will have to focus on rectifying the inadequacies of their initial training. In the case of preservice teacher programs in Kuwait, accreditation would greatly help (1) to bring initial teacher education into line with current good practice internationally; (2) to integrate programs around the fulcrum of actual teaching; and (3) to foster full transparency since all program details, including course outlines, would have to be made available.

The new PD framework seeks to promote a more flexible career path to incentivize teachers to excel with high-quality teaching that focuses on raising student learning achievement and also gives some choice to teachers' own interests and choices. At present, the rigid Civil Service Commission regulations and structures do not support this new paradigm.

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