Daniela Acquaro
Ondine Jayne Bradbury *Editors*

International Perspectives on School-University Partnerships

Research, Policy and Practice

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We dedicate this book to the inspiring global school-university partnerships that have been forged and celebrated within this edited collection. These partnerships epitomise the importance of shared knowledge and expertise across diverse educational contexts. The significance of these partnerships became even more apparent during the height of the COVID-19 pandemic, as the collection was being constructed. The collaborations across multiple stakeholder groups towards the common goal of positively impacting education and contributing to this field of educational research were truly remarkable. The spirit of collaboration and shared knowledge that is reflected in this collection is owed to the efforts of the contributing authors, whose collegial and cross-institutional relationships made this book possible. Without their expertise and dedication, this collection would not have come to fruition.

We would also like to dedicate this book to our families whose unwavering support has been a constant source of motivation and encouragement throughout our academic endeavours.

Foreword

When I was in teachers college (many decades ago) I was placed with Mr. McNeil. He made such a deep impression on me, I tried to emulate him, and he remained my touchstone of excellence. Many years later, my son had a placement with a teacher who told him she prepared the next day starting about 9 pm each evening and would email him the directives for his teaching later in the night. Many late nights were spent then preparing and as a novice this was not a trivial task and each day was tiring. She was hypercritical, demanding to reteach the lesson as the 'children should not suffer', and suggested my son should consider another career (he is now a 10-year+ teaching veteran). Both these 'mentors' were invested in school-university partnerships. Later, as Dean of a school of education we paid teachers to complete two courses to deeply embed them into what we were aiming for in the university about expertise based on Berliner's pioneering work, (1986) and in a later program watched similar joint preparation in the Melbourne Clinical Practice program (Rickards et al., 2021).

Possibly every teacher education program worldwide, and every review of teacher education—whether completed by government, experts, teacher educators, schools or students—always say that better partnerships are needed between schools and initial teacher education programs. Developing these partnerships is a well-trodden path, although this is often not evident from many reports who seem to think it is the magic elixir in their unique programs, and the lack of systematic evidence about the impact of these partnerships. I have experienced so many variants of these partnerships, and they require much maintenance and attention. They can be frail, depend on a few key players, are rarely long-lasting, too infrequently evaluated for impact on students, too often become transactional, can be expensive, continually reinvented with different labels, do not always involve the most effective teachers in a school, tend to rely more on tips and tricks and 'just watch me' models of learning and do not scale across schools with much personal relationship building in each school.

Schools can have an in-built bias to counter innovative university models, as teachers want to create more of themselves and what they currently do. But there are models of excellence, and this book aims to identify varied and successful models. In their introduction, the editors note this long focus on partnerships, the many reasons for developing them, and they aim to showcase some of the most successful partnerships. Rather than find fault and aim to fix it, they admirably want to find success and scale these up.

This book advances these long-standing debates, and what is startling is the attention to innovation to develop these partnerships. This is a process that has been ongoing for many decades. The programs include a focus on entrepreneurship education in secondary schools, the use of service learning, merging preparation and induction, partnerships to resolve shortages, developing a language of leadership, using innovative digital technologies and much more. Like most innovations in teacher education, they tend to be bespoke, not adopted across institutions who prefer to invent their own, and it is still hard to have agreement on what 'success' means. One of the attractions of these chapters is the multiple meanings of 'success', which is a worthwhile topic to pursue.

I am intrigued to discover what each set of authors considered success of partnerships. It is not the usual technical focus on improved student outcomes. Outcomes too often default to students' test scores, or performances on assignments—and thus a teacher candidate in a low performing class may look worse than their peer in a high performing class—among the many reasons to be cautious with this outcome. My colleagues Mavis Haigh, Fiona Ell (Author of Chap. 2) and Vivienne Mackisack (2013) asked teachers for 20 questions that would help judge whether a teacher candidate is ready to teach. They coded the responses from their participants into eight categories, and these covered giving and acting on feedback, personal qualities, relations with children, staff and parents, knowing the content and pedagogy of their teaching areas, organisation and preparedness, skills in gathering information about children's progress and using this in their teaching, skill in planning and classroom management. These are the core skills of teaching and being a teacher. What was more fascinating is not one question about whether the students actually learned anything from this candidate.

Throughout these chapters, there are most worthwhile discussions about the impact of teachers on students, their skill at engaging and motivating, their classroom management that is appropriate for progress in learning and developing their concepts of what it means to be a learner. Mariano et al. (Chap. 9) are upfront that their partnership model aimed to develop entrepreneurial thinking with a view to impact the life outcomes of 8m+ students. The partnership based on their, and one of my, heroes, Freire moves past banking knowledge to develop the skills required to identify opportunities, develop a business, take risks, act creatively and take initiative using the resources available to the high school students. Students rate the experience high, there is evidence of moving away from didactic content infused teaching and testing, and there is more dialogue. Mortari & Silva (Chap. 11) and del Valle (Chap. 4) use service learning to develop more compassionate, considered and capable students. I am a fan of service learning, and there are already four meta-analyses showing a high

effect (d = 0.52) on subsequent achievement and enhancing positive attitudes and engagement in learning. The Philippine partnership mode is embedded in these principles (del Valle et al. Chap. 4). Using community engagement pedagogies can be, they note cumbersome, time intensive and expensive but most aligned with the college aim of 'developing competent, compassionate, and committed teachers specializing in the content and pedagogy of their chosen area of specialization' (would be great if they had added—and 'can impact on students in worthwhile ways' to this mission). COVID helped with the implementation for no other reason than there was no regular classroom life, it helped create teachers as leaders in their preparation years, and all were embedded in concrete actions and beliefs reserving their communities.

Some partnership models seem to develop out of necessities, and it is exciting to see tertiary colleagues taking opportunities to explore better. Napoli et al. (Chap. 3) developed a newly conceived teacher residency and induction support model designed to quickly fill vacant teaching positions in high poverty schools while simultaneously improving the retention of quality teachers. Their notions of success were increased efficiencies, enhanced engagement and instructional strategies and retention once in the school system (all intended to stay in these high poverty schools).

Ell (Chap. 2) explores how to set up partnerships in a new accreditation model. All the modern buzz words are used, especially authentic consultation as if anyone wanted an inauthentic one. Interestingly, the use of evaluators external to the delivery partners, used to identify exemplary programs who received enhanced funding. The evaluation seems to note the fickleness of the models, depending on actors that can change and move a lot, much of the debate is about the money (payment to mentors, cost of running the program). Maybe a message is the need by external edicts to reinvent partnerships, but it would be nice if the focus was more on the development of teacher candidates to impact on students. I worry when claims of authenticity are bandied about as if this means much and also worry when students rate their school-based experience much higher than their tertiary studies—which surely indicates that the partnerships are not working.

Every teacher education institution battles with this problem of worthwhile partnerships, and this book is a particularly valuable contribution. There are rich descriptions, the valuable struggle with 'what it means to be successful', the importance of clear vision and goals, the involvement of multiple actors and the excitement of seizing the opportunity. One day, perhaps there will be sufficient studies to complete a meta-synthesis (qualitative or quantitative) but until then we suffice with success case methodology identifying worthwhile programs. This book shows the value of studying success, focuses on a perennial and critical topic and has a richness of

detail and experiences. Teacher education is in a good place when these dialogues and opportunities are explored.

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About the Editors

Daniela Acquaro is an Associate Professor in Education and Associate Dean of Learning and Teaching in the Melbourne Graduate School of Education at The University of Melbourne. Daniela's research focuses on how we prepare and continue to develop teachers and leaders in the profession. Daniela is engaged in various research projects which focus on school-university partnerships, teacher transitions into the workforce, and successful school leadership.

Ondine Jayne Bradbury is a Teaching Scholar in the School of Education at Deakin University, Australia. She holds a strong desire to connect teaching and learning communities and to build and grow collaborative networks across a range of educational settings. Her current projects include researching the impact of rural incentive programmes for pre-service and in-service teachers; teacher development; and the impact of social networks on quality school-university partnerships in initial teacher education.

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Chapter 1
School-University Partnerships—Moving Beyond Transactional

Daniela Acquaro and Ondine Jayne Bradbury

When we consider what constitutes a successful partnership, the defining factors are irrevocably results driven and mutually beneficial. Successful partnerships are typically motivated by a shared strategic vision, strong commitment by each partner and an acknowledgement that the partnership will enhance impact and effectiveness through the pooling of resources (OECD, 2006). The notion "that individuals and organisations can achieve more by working together (in 'partnership') than they can by working individually" (Dhillon, 2009, p. 287) has been an important driver for partnership arrangements. In the business world, partnerships are key corporate assets often creating an advantage through a carefully managed alliance (Cacciolatti et al., 2020; Todeva & Noke, 2005). Be it big business, microenterprise, or the work of influencers, partnerships in today's economy create opportunities and innovation and are more likely to have a greater impact in the market. The 2030 Sustainable Development Goals (SDGs) (United Nations, 2017) identify collaboration as fundamental in advancing development in business, society and the environment, signalling a collaborative advantage that would not otherwise exist from an individual approach to developing a goal (Stibbe et al., 2019).

Not unlike the business world, partnerships are indispensable in higher education and can present significant opportunities to leverage knowledge, broaden access and contribute positively to social and environmental challenges. Partnerships within the tertiary sector have long existed as collaboration, joint ventures or strategic alliances between or amongst institutions, industry or community agencies (Eddy, 2010). While the value of partnerships within higher education has long been recognised, we are now seeing the power of partnerships in widening the participation of people from

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equity backgrounds, addressing skills shortages and in commercialisation (NCSEHE, 2004).

The importance of partnerships within the tertiary sector is multifaceted, not only in responding to engagement strategic priorities and enhancing a value proposition, but also in advancing the impact of research. The pivot towards maximising research discovery, translation and commercialisation has placed the spotlight on higher education in making strategic industry links. Global investment in research and development accounts for approximately 2% of the world's GDP and is growing (Unesco Institute of Statistics, nd). University partnerships with large corporations and foundations generate research commercialisation opportunities with impact that can be far reaching, often leveraging one another to achieve common goals potentially less viable without the other.

If we turn our attention to initial teacher education, the concept of partnerships is not new and, not unlike the corporate world, has traditionally been focused on results. However the notion of partnership within education has typically been at a smaller scale and more often than not associated with the expansion of the university's teacher placement network and little else (Goodlad et al., 2004; Ladson-Billings & Gomez, 2001; Manton et al., 2020; Walsh & Backe, 2013). For many providers of teacher training, a reductionist view of partnerships with schools has limited the scope and reach to a perfunctory activity that is a means to an end (Hackmann & Malin, 2016; Manton et al., 2020), doing little to bridge the nexus between theory and practice (Knight et al., 2013). Conventional approaches to school-university partnerships regard schools merely as sites for professional experience and the 'partnership' as a transactional activity, consisting purely of servicing placement opportunities. The *school* is quite often given second billing, despite its prominence in the hyphenated compound *school–university*. This traditional approach to partnership negates the notion of reciprocity and squanders an opportunity for collaboration and development, reinforcing teacher educators as the decisive voice in the partnership (Farrell, 2021).

Pleasingly, partnerships between universities and schools are becoming widely recognised as important, with their purpose and function rapidly evolving (Burton & Greher, 2007). Moving beyond transactional relationships between universities and schools focused solely on the provision of professional experience, progressive models of school-university partnerships are driven by innovation and transformation and in many cases are able to make a marked impact on society. This approach, however, is not widespread. Shifting from a one-dimensional transactional relationship to a transformational partnership that values both perspectives, takes concerted effort over a sustained period.

Our work in school-university partnerships has taught us that success requires investment from all partners. Partnerships driven solely by universities set the tone of the partnership and limit the opportunity for a mutually enriching alliance arising from a shared vision and approach. If we look back over time, partnerships between schools and universities have served to bridge the practice theory divide through the provision of professional experience which is fundamental in the provision of quality initial teacher education, however this limited view of partnerships may in fact be

causing us to miss a fundamental driver that could be the key to successful sustainable partnerships. Moving beyond traditional notions of only providing placements for pre-service teachers, contemporary understandings of the potential of school-university partnerships open a myriad of benefits for both schools and universities, and society more broadly.

With initial teacher education reform currently a key priority in government agendas, we need to better understand the scope and structure of partnerships on a global scale (Jackson & Burch, 2019; National Council for Accreditation of Teacher Education [NCATE], 2010; OECD, 2006; Teacher Education Ministerial Advisory Group [TEMAG], 2014). By bringing together international examples of school-university partnerships, we found striking models of innovative applications of policy, research and practice showcasing the breadth, depth and often complex nature of partnerships in action. These examples offer insight into how to implement successful partnerships where there is a common understanding, genuine reciprocity and a desire to think outside corporate benefits. Given this, we can then consider a higher moral and cultural imperative with a focus on outreach and the development of citizenship. Drawing on initial teacher education providers from the UK, the USA, Europe, Asia, Australia and South America, this collection provides an invaluable richness that distinguishes approaches but unites all in their objectives. Where we would typically expect to find narrow transactional examples of school-university partnerships in initial teacher education, this collection of accounts from across the globe captures the essence of successful partnerships for a greater good. The act of partnering, serving more than the partners themselves.

The objectives and approaches that are captured in this collection challenge us to think about the purpose and sustainability of school-university partnerships and the opportunities to shift from a transactional partnership to one driven by collaboration, reciprocity, the opportunity for co-design and the ability to impact on multiple levels. Within this edited volume, we draw together international scholarship on policy-informed school-university partnerships from across the globe, each chapter presenting an in-depth understanding of the policy context and the initial teacher education reform agenda that defines their partnership model. The chapters collectively outline a strong body of evidence with global significance. They detail varied approaches to school-university partnerships, government funding and partnership agreement models, together with performance and impact data that identifies the mutual benefits experienced by both school and university partners in diverse contexts. This book showcases various models of school-university partnerships, and provides a platform to explore the approaches these partnerships utilise to engage with a range of stakeholder groups.

The collection commences with Chap. 2, *Requiring authenticity: ITE partnership policy in Aotearoa New Zealand,* where Ell considers a central tenet of the new requirements in New Zealand, that program design and delivery must be based on authentic consultation and partnership with relevant key partners. The idea that authentic partnership can be a requirement of initial teacher education is explored using positioning theory, to understand the construction of 'authentic partnership' as necessary for quality initial teacher education and what its early impacts on practice

are. To understand how new positioning of providers and the teaching profession came to be central to the Teaching Council of Aotearoa New Zealand requirements, and thus to the work of teacher education providers, Ell analysises key documents and events leading up to the new requirements' publication. This analysis centred on teacher preparation for English medium schools also uses positioning theory, particularly to identify the emerging story lines that put authentic partnerships in the centre of initial teacher education reform.

In Chap. 3, *Leveraging existing policy for a university/K-12 partnership: using a teacher residency and induction model to address a teacher shortage in Virginia, US, Napoli,* Kuti and Spires detail work emerging from the Greater Richmond region of Virginia which is facing critical teacher shortages. This chapter explores a partnership that moves from a contentious approach of filling teacher vacancies in high-poverty schools to a reimagined policy-praxis nexus where stakeholders participate in a pilot model of residency where a collaborative partnership between schools and universities is explored. The STEP program and partnership resulted in higher teacher efficacy from pre-service teachers and the experienced teachers who supported them. Future considerations include thinking beyond policy constraints and providing opportunity for reciprocal benefits across all stakeholder groups.

In Chap. 4, *Service Learning during lockdown: a school-university rural community outreach partnership in the Philippines,* Del Valle, Quilapio, Decena, Taumatorgo and Badiola document the Philippine's national mandate to incorporate service learning across all tertiary education institutions. This follows shifts in the country's K-12 curriculum to learner-centred, community-based, and lifelong learning. The authors explore service learning as a means of implementing community outreach programs which not only fulfils the higher education national policy but also Ateneo de Naga University's mission as a Jesuit university. The authors describe how service learning has been incorporated into the Philippine higher education curriculum to suit the local needs of their immediate communities with disaster relief a central focus given the frequency and intensity of typhoons. The chapter explores pre-service teacher perceptions of service-learning programs through their volunteer work in teaching literacy skills to children across rural communities and the impact on their personal development and social responsibility.

In Chap. 5, *Co-existing sites of teacher education; a university and school partnership in Glasgow,* Dickson and Boland outline an innovative model of incorporating teacher professional learning within a school-university partnership approach. Coupled with support from the Scottish Government, the partnership brings together groups of primary and secondary schools and university partners. Policy funded time release for teacher's to participate in this project in addition to a local authority officer. The planned content for the participating stakeholders took into account the various knowledge of all stakeholders over an 18-week placement period. Although evidence of transformative practices was apparent within some circumstances, overall results of the partnership included innovations in the ways in which curriculum was planned in university contexts. This chapter outlines the structure, tensions and overall shared values inherent in this approach to school-university partnership design.

In Chap. 6, *School-university partnerships in Vietnam: insights, reflections and recommendations*, Nguyen, Thi Dinh and Nguyen explore the extent of school-university partnerships spanning across pre-service teacher education, continuing professional development, and research. The authors take an analytical look at Vietnam's policies of pre-service teacher education with regards to university-school partnerships and educational reform, from the early 2000s till 2020. This chapter analyses the current models of school-university partnerships employed by major providers of teacher education in Vietnam and makes recommendations to strengthen school-university partnerships in preparing teachers in Vietnam.

In Chap. 7, *Professional learning and development partnerships as a vehicle for teacher empowerment in Ireland,* King, Holland and Ní Áingléis explore the notion of school-university partnership that has at its essence a commitment to empower teachers to develop a 'language of leadership for change and empowerment'. The authors suggest that a system wide approach is needed for sustainable partnerships rather than isolated initiatives. They explore partnerships being the norm in and across schools and higher education institutions where there is a top-down and bottom-up collaboration with both partners investing and taking ownership.

In Chap. 8, *Stimulating Australian STEM education in regional Queensland through a novel university-school-industry partnership*, Pfeiffer, Bradbury, Tabone and Rashleigh provide insight into a university-school-industry partnership that provides integral support for teachers and students in the science, technology, engineering and mathematics (STEM) space. Pfeiffer and colleagues outline the tensions and challenges within the Queensland regional area of Gladstone concerning STEM teacher training and professional development support, and include two examples of pioneering programs conducted in a specialised STEM space called STEM Central funded from external industry partnerships. This novel partnership aims to provide ongoing support for the Gladstone region with innovative plans for engagement activities in STEM Central.

In Chap. 9, *In-service teacher preparation for entrepreneurship education in secondary schools: a university Rio de Janeiro State Department of Education partnership,* Mariano, Moraes and Cunha respond to falling school completion rates, economic instability and widespread poverty, as they describe a large-scale partnership between the Fluminese University in Rio de Janeiro in Brazil and 93 schools across Rio de Janeiro. Their ambitious partnership aimed at lifting young people's skills and capabilities through introducing entrepreneurship education in the school curriculum. It also improved the life outcomes of its population. As part of Rio de Janeiro's broader strategy to improve student outcomes, the city introduced an education restructure which included a move away from part-time schools to full-time schools and a focus on the learner through the introduction of entrepreneurial studies. The partnership resulted in a system-wide restructure, and initiated the development of entrepreneurial curriculum alongside the required teacher training to introduce the relevant pedagogy required.

In Chap. 10, *Integrating initial teacher education and induction in Scotland,* Boath, Shimi and Campbell detail an integrated approach to the impact of teacher shortages in specific geographical regions of Scotland. They draw upon the integration of a year-long, funded initial teacher education program that supported graduate teachers to explore an alternate route into teaching. This funding was seen as integral in supporting both school and university-based stakeholders for this pilot program. A high percentage of pre-service teachers within the program chose to teach in the targeted school contexts; however, findings concluded that ongoing support and resourcing were essential to continue programs such as these.

In Chap. 11, *Service Learning in Italy: a bridge between academia and society,* Mortari and Silva present a model of service learning at The University of Verona, Italy, inspired by philosophical notions of 'common good' in defining one's civic responsibility. Primary pre-service teachers are offered an opportunity to contribute to the well-being of a context through service, civic responsibility, learning curricular objectives and reflexivity. Their model builds a bridge between the university and society by positioning service learning as an opportunity for personal growth and civic responsibility by reconnecting academia with the community. Spanning across five districts in Italy's north, the partnership was established to respond to the needs of the school community. Primary pre-service teachers worked with local school mentors to identify a point of need for the community and then to work towards achieving a common goal. Their model affirms the university's role in supporting students as individuals, professionals and contributing citizens capable of committing themselves to the good of the community by making civil responsibility a priority.

In Chap. 12, *The Network of Erfurt Schools (NES): professionalization of school actors and school development through school, school supervisory authority, and university cooperation in Switzerland,* Huber and Schneider outline their work with 15 schools in the city and region of Erfurt in Germany. The school network offers school leaders the opportunity to network, develop their leadership capabilities and engage in exchanges. The partnership is a cooperation project between schools, school authorities and the university. While the focus was initially on organising education events, the partnership evolved to facilitate cooperation among schools in the various areas to develop the quality of school work. While the funded project ended over a decade ago, the partnership among the schools continues.

In Chap. 13, *Ready for what?—Digital readiness in teacher education: a case study of professional partnership in Northern Ireland.* Roulston, Taggart and McCaffrey-Lau juxtapose the school-based innovations of integrating digital technologies with the preparation of pre-service teachers in university contexts in Northern Ireland. This chapter provides a unique insight into the need for communication and a triangulation of approaches that work in unison to support the development of ICT skills and strategies while providing adequate resourcing across sectors. With the emergence of COVID-19 only strengthening the need for capacity building in ICT, these policy-informed practices are explored with an emphasis on the need for multidimensional considerations of connectivity and development of skills. This chapter highlights the importance of a stronger interface of information pathways that engage

all relevant stakeholders between ITE providers, policy-makers and school-based contexts.

The edited volume closes with Chap. 14, *School university partnerships: Moving towards transformation*, where we draw together the key themes of the contributing chapters and synthesise the effective aspects that make these partnerships transformational for all stakeholders involved. We explore the notions of policy, productivity, sustainability and civic purpose and their centrality in reconceptualising ways of initiating, implementing and sustaining successful school-university partnerships.

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Chapter 2
Requiring Authenticity: ITE Partnership Policy in Aotearoa New Zealand

Fiona Ell

In 2019 the Teaching Council of Aotearoa New Zealand released a new set of requirements for the approval and accreditation of initial teacher education (ITE) programs in Aotearoa New Zealand (TCNZ, 2019). All ITE programs in Aotearoa New Zealand must be approved under these new requirements by 1 January 2022. This chapter considers a central tenet of the new requirements, that "program design and delivery must be based on authentic consultation and partnership with relevant key partners" (TCNZ, 2019, p. 10). The idea that 'authentic partnership' can be a requirement of ITE is explored using positioning theory (Davies & Harre, 1990; Harre, et al., 2009), to understand the construction of 'authentic partnership' as necessary for quality ITE and what its early impacts on practice are. First, positioning theory is explained briefly, in the context of understanding institutional actors in the public arena rather than individuals. Then, the key analytical tools of positioning theory are used to understand the shifts in positioning embedded in the TCNZ Requirements (TCNZ, 2019). To understand how new positioning of providers and the teaching profession came to be central to the TCNZ Requirements, and thus to the work of teacher education providers, an analysis of key documents and events leading up to the publication of the new requirements is presented. This analysis also uses positioning theory, particularly to identify the emerging story lines that put authentic partnerships in the centre of ITE reform. The analysis is centred on teacher preparation for English medium schools.

In Aotearoa New Zealand, initial teacher education (ITE) is regulated and accredited by a national body called the Teaching Council. The Council is separate from Government and is responsible for providing leadership to the teaching profession and enhancing the status of teaching as well as registering, certificating and disciplining teachers and setting teaching standards. In ITE, the Teaching Council sets the requirements that programs must meet, accredits programs through a panel-led

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approval process and monitors programs regularly. The Teaching Council is governed by a board of seven representatives elected by different sectors of the profession, including one from ITE providers, and six people appointed by the Minister of Education. In 2019, after a lengthy process of development and consultation, the Teaching Council released new ITE requirements. This chapter considers where the ideas in these requirements came from and what their impacts are for partnership in ITE in Aotearoa New Zealand.

The ITE Requirements

In the preamble to the 2019 ITE Program Approval, Monitoring and Review Requirements document, Teaching Council of Aotearoa New Zealand (TCNZ, 2019)[1] states "these requirements represent a shift in the Council's expectations for initial teacher education" (p. 3). Stating that they want graduates to be "ready to teach and well equipped to continue their development journey" (TCNZ, 2019, p. 3), they list four foci. One is "providers establishing and maintaining authentic partnerships with key partners such as schools/centres/kura,[2] and Māori[3] and iwi[4]", to "get their input into key elements of a program" (TCNZ, 2019, p. 3). This aspiration is elaborated as Requirement 1.3: Design and delivery based on authentic partnerships. The requirement is that "program design and delivery must be based on authentic consultation and partnership with relevant key partners" and that: "there must be a plan to show how authentic partnerships with key partners (with mutual benefits that are explicit and interdependent, structured and with shared responsibility for success) will be strengthened and expanded over the following two to three years" (TCNZ, 2019, p. 10).

Providers meet this requirement by submitting documentation and answering questions from a TCNZ-appointed panel in a face-to-face approval process. A session with partners is part of the approval panel process. TCNZ requires evidence that partners are involved in:

- program design
- designing professional experience placements and working out how professional experience will be assessed

[1] During the period covered by this chapter, the teachers' professional body in Aotearoa New Zealand changed its name from the Education Council to the Teaching Council of Aoteroa New Zealand, Matatū Aotearoa. It had previously been known as the Teachers Council of Aotearoa New Zealand. All of the documents and actions taken by this body are referenced as 'Teaching Council' to avoid confusion, despite what they were called at the time.

[2] Kura are Māori medium schools. They are included here because of the wording in the document quoted, but this chapter pertains to English medium education, not Māori medium education.

[3] Māori are the indigenous people of Aotearoa New Zealand.

[4] Iwi are tribal groups of Māori. Local histories are important for bicultural practice in Aotearoa New Zealand, so relationships should be made with local people.

- developing the assessment framework for the whole qualification
- developing a set of 'key teaching tasks' that graduating teachers need to be able to do independently in classrooms
- developing the candidate selection process
- assessing student teachers course work, especially the capstone 'cumulative integrative assessment'
- reviewing the program and identifying improvements
- giving and receiving mutual benefits
- authentic consultation.

TCNZ (2019) also tests that the "roles and responsibilities of each party have been clearly negotiated, clearly defined and well understood" (p. 11) and "whether the plan on how an authentic partnership with key partners will be strengthened and expanded of the following two to three years is likely to achieve this and…result in a shared responsibility for preparing ITE student teachers" (p. 11). In addition, Requirement 3.2: *High-quality features of professional experience placements*, stipulates eight features that professional experience placements must have in approved programs. Here, again, there must be "an authentic partnership between the provider and the schools/centres/kura" (TCNZ, 2019, p. 21). The features include negotiation of roles and responsibilities and the purpose of professional experience. Complete integration between theory and practice is required, as are shared expectations and agreement about assessment of student teachers.

Partnership between providers and practice settings pervades the ITE requirements document beyond these two specific requirements. Clearly, TCNZ is using the ITE requirements to shift the relative positions of providers and schools in designing and delivering teacher preparation—and to define the nature of the relationship between these parties in ITE. Providers will not get approval for their programs without demonstrating 'authentic partnerships'. Requiring institutions to have a certain type of relationship with each other sends a strong message to ITE providers, the professional community and those they serve. Positioning theory provides a framework to trace how this came about and what its impacts might be.

Positioning Theory

Positioning theory was introduced to psychology and sociology by Davies and Harre (1990). It grew out of dissatisfaction with the static nature of 'roles' in understanding relationships. In understanding ITE partnerships, the concept of 'role' is frequently used. The role of the provider, the school, the mentor or associate teacher, the student teacher, the visiting lecturer and liaison roles are often foregrounded in explaining partnerships. This suggests that roles can be assigned to people or institutions and that they will remain stable. Positioning theory uses three interrelated social phenomena to analyse dynamic relationships amongst people or larger-scale relationships amongst institutions or nations, rather than assigning long-term roles (Harre et al., 2009).

The three phenomena—positions, storylines and speech acts—are represented as points of a triangle to indicate their interdependence. Positions are "the cluster of rights and duties to perform certain actions with a certain significance" (Harre & Moghaddam, 2003, p. 5). Storylines are the "loose cluster of narrative conventions" (Harre & Moghaddam, 2003, p. 6) that unfold as people or institutions interact. Speech acts (or acts of communication more broadly) are "the socially significant actions, movements or speech" (Harre and Moghaddam, 2003, p. 6) made by the people or institutions who are interacting. Positioning theory is used to analyse interaction and its outcomes, across a range of timescales. Davies and Harre (1990) began by using positioning theory to understand interpersonal communication. Harre et al (2009) and a book edited by Moghaddam et al. (2008) extend positioning theory by analysing larger-scale interactions, such as the interaction between indigenous groups and NGOs in a developing country (Bartlett, 2008).

Speech acts[5] convey meanings, that build a storyline, that assign rights and duties to the various participants in the interaction. Multiple storylines might be invoked by single speech acts, depending on the perceived rights and duties of those involved (Davies & Harre, 1990). Storylines determine the positions that it is possible to take up in an interaction. For example, if a storyline positions two groups as 'enemies', it is hard to take up a position other than 'us' or 'them'. Within the evolving storylines, through speech acts, rights and duties are assigned and taken up or rejected. What happens as the interaction proceeds is shaped by the willingness, capability and power of the participants (Davies & Harre, 1999). Willingness describes participants' openness to being positioned or positioning themselves. Capability describes the extent to which the participants can carry out their assigned positions. Power, in this context, is about how participants are enabled to carry out positions (Harre & Moghaddam, 2003; Huang & Wang, 2021).

Defining positions by the rights and duties that they imply is a helpful tool to understand positioning between providers, schools and TCNZ with respect to partnership. Policies, position papers, reports and evaluations can be seen as 'speech acts' that assign rights and duties to institutions and people and create storylines about ITE and its effectiveness. Davies and Harre (1990) describe positioning evolving into the "braided development of several storylines" (p. 50).

Using Positioning Theory to Understand the 2019 ITE Program Approval Requirements

If we conceptualise the 2019 ITE Program Approval Requirements (TCNZ, 2019) as a 'speech act', we can see how it assigns rights and duties (positions). ITE providers and schools, as well as other stakeholders such as iwi Māori, have to develop 'authentic partnerships'. Tables 2.1 and 2.2 list the rights and duties directly assigned or implied

[5] Speech acts include other forms of communication, such as writing, or gestures. They are acts that 'speak into' a space, developing storylines and assigning rights and duties.

Table 2.1 ITE provider and partner rights outlined in the 2019 ITE Program Approval Requirement 1.3 (TCNZ, 2019)

ITE provider rights	Partner rights
To choose their partners	To move into, leave or reject partnership
To choose how to approach and consult partners	To define if they have been 'consulted' or 'partnered with'
To work out what benefits they will offer to partners	To work out the benefits they will offer as partners
To work out their negotiation parameters and resourcing for partnership	To work out their negotiation parameters and resourcing for partnership
	To be involved in: – program design – developing the key teaching tasks – designing professional experience placements – developing the assessment framework – identification of students at risk and assessing students' readiness to teach – designing and contributing to the candidate selection process – review and suggest improvements

by the 2019 ITE Program Approval Requirements. As mentioned above, partnership is a theme throughout the document, especially in Requirement 3.2, which outlines the requirements for high-quality professional experience placements. However, this analysis focuses on Requirement 1.3: Design and delivery based on authentic partnerships, because this is the place where the policy stipulates the kind of relationships that must exist, thereby positioning ITE providers and their partners in particular ways.

Although Requirement 1.3 stipulates that the benefits of partnership must be mutual, Tables 2.1 and 2.2 show that ITE providers need willing partners more than partners need involvement in ITE. School partners are being asked to engage with a list of tasks that have not historically been part of their core business. The list of program aspects that partners must engage in appears in both tables, because while the requirement opens up ITE providers to partners and gives them the right to contribute to who comes in to teaching, what they do in preparation and whether they should graduate, it also sets these up as duties for anyone who agrees to partner with an ITE provider. The overall goal of "shared responsibility for preparing ITE student teachers" (TCNZ, 2019, p. 11) requires ITE providers to shape their practice and decision-making with partners and partners to step into the ITE space in addition to their core functions. What some principals might see as new rights, others will perceive as new, perhaps onerous, duties. ITE providers are assigned the duty of seeking out those for whom the new rights present a welcome opportunity and finding out what they want and need to partner 'authentically' with them in ITE provision.

Table 2.2 ITE provider and partner duties outlined in the 2019 ITE Program Approval Requirement 1.3 (TCNZ, 2019)

ITE provider duties	Partner duties
Find and approach possible partners	–
Secure enough partners to make the program viable	–
Offer and receive benefits that are explicit, interdependent and structured	Offer and receive benefits that are explicit, interdependent and structured
Share responsibility for teacher preparation and student teacher success	Share responsibility for teacher preparation and student teacher success
Have a plan for strengthening and expanding partnership	–
Document all partnership activity and develop any written agreements or Memorandums of Understanding	–
Consult in a way that potential partners feel is authentic	–
Allow involvement in multiple aspects of the program, including entry, program design, assessment, key teaching tasks, professional experience design and assessment and review of the program	To be involved in: – program design – developing the key teaching tasks – designing professional experience placements – developing the assessment framework – identification of students at risk and assessing students' readiness to teach – designing and contributing to the candidate selection process – review and suggest improvements
Resource the partnership with people and funding	Resource the partnership using provider resources and school resources if needed
Be clear about the roles and responsibilities of each partner and enact their roles and responsibilities	Be clear about the roles and responsibilities of each partner and enact their roles and responsibilities

Positioning theory suggests that these positions, expressed as rights and duties, arise from, and contribute to, storylines about ITE. To understand how they contribute to ITE storylines in Aotearoa New Zealand, the next part of this chapter presents an analysis of key speech acts, in the form of reports, position papers and evaluations about ITE partnership, that emerged in the two years prior to the publication of the 2019 ITE Program Approval Requirements (TCNZ, 2019). The requirements were anticipated for much of this period. Analysing the speech acts between 2017 and 2019 for the positioning and storylines they contain reveals a 'braided development' of storylines that put Requirement 1.3 in context.

Gunn and Trevethan (2019) outline how ITE policies and associated documentation released between 2010 and 2018 constructed ITE as 'a problem' (p. 5). Alcorn (2014) reviews Aotearoa New Zealand's ITE history between 1974 and 2014 and

reaches a similar conclusion—ITE has been repeatedly evaluated and found wanting in cycles of policy-making since the Tomorrow's Schools reform of the late 1980s. This analysis picks up the storylines from 2017, in the wake of TCNZ's first formal foray into the ITE space: a paper entitled 'Strategic Options for Developing Future Oriented Teacher Education' (TCNZ, 2016). At the time, a cluster of postgraduate ITE trial programs was being developed and delivered as part of a Ministry of Education initiative. Extra funding had been awarded to ITE providers to develop and deliver equity-focused, postgraduate qualifications. In the Strategic Options paper, TCNZ stated.

> The … Council believes the time is right for it to exercise its leadership role on behalf of the profession, in overall management of the ITE system. This does not mean the … Council should do everything in the system, but it believes that its role is to facilitate the development of a coherent vision as to how the system should move forward and to coordinate the actions of the different players to achieve that vision (TCNZ, 2016, p. 8).

This claim positioned TCNZ as the leader of initiatives in the ITE space, rather than the Ministry of Education or providers, and began a multistage program of work that culminated in the 2019 ITE Program Approval Requirements. The key concerns in the Strategic Options paper were setting standards for, and assessing, graduate outcomes, improving the quality of practicums and considering whether teaching should become a postgraduate profession, strengthening entry requirements for teaching, managing the pathway from qualification to full certification as a teacher, managing supply of teachers, considering funding issues and taking a 'whole of system' approach to increase coherence and quality. These concerns reflected the times: there was a teaching supply crisis imminent, the post graduate trials were running, and there was concern about program quality and provider proliferation. Collaboration amongst providers was listed as a recommendation. Considering the key role that partnership would come to play in the eventual requirements, it is notable that the term is used only four times in the 2016 Strategic Options paper. Once it refers to the Council partnering with providers and the profession and three times it refers to provider–sector partnerships: for improving practicum quality, for improving the quality of the first two years' induction in schools, and for developing a career pathway into teacher education for skilled practitioners. As we have seen above, partnership will eventually have a part to play in a number of the other concerns in this paper: in entry, standard setting and assessment of graduates. How did partnerships move from a tool for improving practicum to an essential requirement for teacher education program approval?

Speech Acts, Positions and Storylines 2017–2019

TCNZ undertook a development process to move from the 2016 Strategic Options paper to the 2019 ITE Program Approval Requirements. First, they commissioned a review of evidence about the features of 'high-quality practica' from the New

Zealand Council for Education Research (NZCER) (Whatman & McDonald, 2017). Then they formed an advisory group (ITEAG), comprising people from a wide range of stakeholder groups and perspectives. Next, they consulted with the profession on a range of 'future focused' proposals and summarised their findings (TCNZ, 2017a, 2017b). Following consideration of the feedback, TCNZ published their vision for the new ITE system and their detailed decisions about the proposals (TCNZ, 2017b). In 2018, they released draft requirements for consultation and subsequently a document summarising the outcomes of their consultation, their response and next steps (TCNZ, 2018). In 2019, they released the final set of program requirements (TCNZ, 2019).

In amongst these policy actions by TCNZ, other interested parties also devised and released strategies, evaluations and recommendations. The space between the 2016 signals of intent and the 2019 finalisation of requirements allowed stakeholders to act to influence TCNZ's thinking and wider professional and public opinion.

'Normal Schools' and 'Model Schools' in Aotearoa New Zealand are schools that receive additional funding in the form of staffing allocation and salary bonuses to all their teachers for involvement in teacher education. In the late nineteenth century, Normal and Model schools were the site of teacher preparation. When teacher education was the provenance of Colleges of Education, until recent decades, Normal and Model schools provided demonstration lessons and microteaching opportunities as well as practicum placements and were often a source of staff for the Colleges. In the time since teacher education provision has diversified, Normal and Model schools' positions have also diversified. Some are closely involved with ITE providers while others are not. Social changes mean that many of the Normal and Model schools are now in high socio-economic areas with low numbers of Māori and Pacific students. As education policy shifts to focus on marginalised learners and equity, the location and demographics of Normal and Model schools as a group pose a challenge for their role in teacher preparation. The Normal and Model School Association (NAMSA) is an active group in the ITE space advocating for the role of their schools in providing quality graduate teachers. TCNZ's, 2016–2019 process opened up a space for NAMSA to develop its own policies and statements around ITE's direction. They produced two key documents in 2017 and 2018: a mission statement (NAMSA, 2017) and a 'future focused ITE' statement (NAMSA, 2018).

The Education Review Office (ERO) is the body that evaluates schools. Review teams visit schools on a rotating basis. Periodically, they publish overview reports to inform the system and policy-making. In 2017, ERO released a report on the preparedness of beginning teachers (ERO, 2017). Drawing on data from interviewing beginning teachers and principals in schools, ERO made recommendations about the content and structure of teacher preparation programs in this report.

MartinJenkins, a professional evaluation company, was commissioned by the Ministry of Education to evaluate their pilot of postgraduate ITE programs. MartinJenkins released their final evaluation of the programs in June 2018 (MartinJenkins, 2018). The 'exemplary programs', as they were known, were given additional funding to support increased partnership activity. The nature, extent and efficacy of these partnerships were part of the MartinJenkins evaluation (Table 2.3).

Table 2.3 Timeline of key policy and evaluation 'speech acts' about ITE partnerships 2017–2019

2017	NZCER review: High-quality practica and the integration of theory and practice in ITE (Whatman & McDonald, 2017)
2017	TCNZ: Future focused proposals consultation https://teachingcouncil.nz/assets/Files/ITE/Future-focused-ITE-proposals-summary-of-consultation-findings-.pdf
2017	NAMSA: strategic direction
2017	TCNZ: vision and detailed decisions https://teachingcouncil.nz/assets/Files/ITE/ITE-vision-and-detailed-decisions-on-proposals-for-future-focused-ITE.pdf
2017 (December)	ERO: newly graduated teachers: Preparation and confidence to teach
March 2018	NAMSA: ITE position paper
2018 (June)	Martin Jenkins: evaluation of exemplary postgraduate ITE programs
2018	TCNZ: feedback to draft requirements (https://teachingcouncil.nz/assets/Files/ITE/Draft-ITE-Requirements-2018-feedback.pdf

In the following section, each of these speech acts is considered chronologically, in terms of the rights and duties (positions) it suggests or allocates, and the main storylines about ITE and partnership it contains. Five overall storylines emerge from this analysis, and these are presented in a summary at the end of the section.

Key Speech Acts

NZCER Review of High-Quality Practica (Whatman & McDonald, 2017)

TCNZ commissioned NZCER to "build an evidence base" (Whatman & McDonald, 2017, p. 1) about the features of high-quality practicum experience and the integration of theory and practice in ITE. The eight themes that emerged from this review were transferred directly into the new requirements as Requirement 3.2. Furthermore, this review is where the importance of partnership for achieving improved practicum and greater integration emerges, "In high quality practica there is a genuine/authentic partnership between institutions (the teaching institution and the school or ECE setting). Every aspect of the ITE program is integrated and there is not a sense of 'theory' and 'practice' being enacted separately in different institutions" (Whatman & McDonald, 2017, p. 19).

The terms 'genuine' and 'authentic' enter the requirements unaltered, and the rights and duties associated with being 'genuine' and 'authentic' come with them. Whatman and McDonald's (2017) findings that "authentic partnerships with a clear

sense of purpose" (p. 19) are central to high-quality practica, as are "collegial relationships" (p. 20) and "adopting new roles and responsibilities" (p. 20) suggest new positions for ITE providers and schools.

A central part of partnering in this review is time and commitment and the resourcing that goes with this. Both ITE providers and partners are assigned the duty of committing time and resources to the work. As most schools are not resourced to work in ITE, this implies a duty on ITE providers to share their resources with their partners. The positions described above contribute to five key storylines:

- Authenticity is significant to success in partnership ('fake' partnerships will not work).
- Schools contain significant expertise that is currently underutilised.
- Partnering is time consuming, intensive, and costly.
- ITE is unbalanced in favour of ITE providers in terms of decision-making and power.
- Purposes and communication are unclear.

TCNZ: Future Focused Proposals Consultation 2017

TCNZ followed the Strategic Options paper with a set of future focused proposals in 2017 (TCNZ, 2017a). After consultation, the results of a short online survey, a more detailed open survey, and written and verbal submissions were combined with discussions at a series of meetings in 2017 to produce this summary.

The summary reports strong support for "strengthening practice arrangements" (TCNZ, 2017a, p. 3). However, the three key findings position school partners and associate teachers as incapable of working in the way the proposals suggested.

Respondents felt that there would not be enough quality placements available, positioning schools as not able to meet the more substantial duties outlined in the new proposals. Respondents suggested that the TCNZ provides resources for professional learning for associate teachers, positioning them as needing further development to be capable of providing high-quality practice. Some suggested that outside expert teachers would need to be brought in to schools to reduce the demands being made on staff in partner schools. While the literature review (Whatman & McDonald, 2017) positioned schools as an untapped resource of valuable knowledge that had to be brought into ITE, the respondents to the future focused proposals positioned schools as incapable of contributing in high-quality ways. The positions described above contribute to two storylines: one arising from TCNZ's proposals and one from the sector voice summarised in the document:

- ITE, especially practicum, is 'weak' and needs 'strengthening'.
- Schools are not capable of meeting the demands for higher-quality practica.

NAMSA: Strategic Direction 2017

The Normal and Model Schools Association (NMSA) produced a strategic direction in 2017 as they engaged with the Teaching Council's proposed changes to ITE. Their strategic direction statement makes clear how they see themselves in relation to ITE providers and the Council's direction.

NAMSA's explanation of their identity is "Our identity is defined by our specialist partnership with other providers of teacher education" (NAMSA, 2017, Strategic Direction section).This statement positions Normal and Model schools as teacher education providers themselves and highlights their specialist skills and knowledge. Their mission is 'leading innovation and best practice as specialist teacher educators', positioning them as leaders and again as teacher educators and specialists, not schools-that-happen-to-have-student-teachers. Their vision is "strong two-way partnerships" and "work(ing) in equal partnership with universities and other agencies to provide consistently high quality initial teacher education" (NAMSA, 2017, Strategic Direction section). It is clear that NAMSA schools see themselves as equals to ITE providers in being able to provide high-quality and consistent teacher education experiences for student teachers. In this document, they assign themselves a number of duties such as modelling exemplary practice, providing expert guidance and support and having cultures of professionalism, trust and inclusiveness. They claim the right to be seen as equals with tertiary providers and experts/specialists.

The position taken in this document creates new storylines of competence and interest in ITE amongst Normal and Model schools:

- Normal and Model schools are teacher education providers.
- Normal and Model schools are the equals of ITE providers.
- Normal and Model schools are leaders and innovators in teacher education.

TCNZ: Vision and Detailed Decisions 2017

TCNZ's next step was to release a vision document outlining their decisions about their proposed changes to ITE in Aotearoa New Zealand (TCNZ, 2017b). In this document "genuine and authentic provider-school partnerships" (TCNZ, 2017b, p. 6) appear as part of the proposed requirements, and the 'quality factors' from the Whatman and McDonald (2017) review are listed as proposed requirements. Providers are assigned duties: "we will require ITE programs to demonstrate they have quality practicum arrangements" (TCNZ, 2017b, p. 6), as are schools with suggestions of longer practicum times and the need for a 'sense of belonging' for student teachers in the school.

This document makes explicit the significance of partnership for TCNZ's ambitions to "create system change in ITE, built on local collaborative relationships" (TCNZ, 2017b, p. 3). There is a shift towards greater professional involvement in

ITE across a range of activities in this document. These will later be reflected in Requirement 1.3. New storylines emerge alongside some recurring plots:

- ITE needs transformational change.
- The profession will make better decisions than providers.
- Without surveillance, providers will not maintain quality practicums.
- Authenticity is significant to success in partnership ('fake' partnerships will not work).

One storyline that emerged from the Whatman and McDonald (2017) review and was reinforced in the future focused proposals document (TCNZ, 2017a) was the costliness of partnership, in money, time and energy. In this vision document, TCNZ deals with the resourcing storyline by saying they will "work with the Ministry of Education to provide advice to Government" (TCNZ, 2017a, p. 6). In this way, they position themselves as not being responsible for resourcing the changes they advocate. It is TCNZ's right, and its duty, to set the requirements in a way that promotes quality ITE, and it is someone else's duty to fund or otherwise resource any necessary changes.

ERO: Newly Graduated Teachers: Preparation and Confidence to Teach (2017)

In December 2017, ERO released an evaluation of the preparedness and confidence of newly graduated teachers (ERO, 2017). Based on conversations in schools with newly graduated teachers and school/centre leaders, the report found "a lack of confidence" in ITE to prepare teachers (ERO, 2017, p. 4). ERO listed a number of factors that contributed to the inadequacy of preparation they observed:

- Lack of clarity about expectations and relative responsibilities of ITE providers and associate teachers in supporting student teachers
- Insufficient opportunities to learn the practice of teaching.
- Variable quality of guidance by associate teachers.
- Lack of integration between theory and practice.
- Theory and practice were unbalanced—too much theory, not enough practice.
- ITE programs needed strengthening.

(ERO, 2017, pp. 4–5)

Interestingly, ERO has more recommendations for TCNZ than for ITE providers and none for schools. Schools are positioned as the 'consumers' of an 'inadequate product' in the form of under-prepared new teachers. While the role of associates is acknowledged, the duty of "providing clear expectations around the selection and practice of associate teachers" ERO, 2017, (p. 6) is assigned to ITE providers, along with "providing clear expectations… about the learning to occur on practicum" (ERO, 2017, p. 6). ERO assigns TCNZ the duties of strengthening their requirements for

ITE programs and lifting standards. In essence, ERO sees formal approval processes as the lever on changing ITE provider behaviour, thereby positioning TCNZ as the agent for causing change in teacher preparation. ERO provides a list of areas that need strengthening by TCNZ in ITE program requirements. This list is almost a direct match for the list of areas in which partners are required to be involved in the 2019 ITE Program Approval Requirements: entry requirements, program design, the quality of practicum and setting assessments to ensure that student teachers meet the standards for the teaching profession before graduation. TCNZ takes up the duties assigned to it by ERO by requiring ITE providers to address those areas with partners from the profession. The key storylines emerging from the ERO report are.

- ITE, especially practicum, is 'weak' and needs 'strengthening'.
- ITE is unbalanced, with too much theory and not enough practice.
- Practicum experiences are poor, and providers are responsible for this.
- There is a big gap between ITE providers and schools.

NAMSA: ITE Position Paper 2018

In 2018, NAMSA responded to TCNZ's papers with one of its own. In it they positioned Normal and Model schools as a key part of achieving 'future focused' ITE. NAMSA position ITE providers as 'academic' and out-of-touch and seek greater opportunities to contribute to ITE, through genuine partnership with providers, but also as providers themselves, using field-based preparation models. In this paper, NAMSA sees expanded roles for schools in the proposed ITE requirements as rights rather than duties, extending from their origins as teacher education sites in the nineteenth century and their consequential special status. These rights need to be accompanied by proper recognition of the position they are taking up, particularly through resourcing. Their list of implications from their proposals includes 'improving collaboration' and 'shifting from consultation to partnership' but with little explanation of what the rights and duties of an ITE provider partner might be in their conception of Normal and Model schools' leadership of ITE. Several strong storylines emerge from this paper:

- ITE is unbalanced, with too much theory and not enough practice.
- ITE is 'weak' and needs 'strengthening'.
- ITE lacks relevance and practice credibility.
- Normal and Model schools can provide excellent solutions to the problems of ITE.

MartinJenkins: Evaluation of Exemplary Postgraduate ITE Programs 2018

In June 2018, MartinJenkins released their final evaluation of the exemplary postgraduate ITE programs pilot. These programs were developed in response to a Ministry of Education Request for Proposal with criteria including extended practicum time and partnership relationships with schools. Additional funding was offered for successful tenderers. This report provided empirical data about what happened when these approaches were adopted. The storylines that emerge from this analysis echo the recurring but somewhat suppressed call throughout the 2017–2019 period for proper resourcing to support partnership. MartinJenkins (2018) notes that "quality partnerships are rewarding but resource intensive; dedicated resources are needed to build and maintain effective partnerships" (p. 25). They also note that because of staff turnover, "continual investment" is needed (MartinJenkins, 2018, p. 25), "only half of principals and a quarter of mentor teachers (were) satisfied with compensation levels" (MartinJenkins, 2018, p. 6) and "partnerships can be strengthened over time if sufficient investment is made" (MartinJenkins, 2018, p. 5). The storylines in this report were.

- Partnership needs resourcing to function, and it costs more than other models.
- Partnership is time consuming and intense and requires effort to establish and ongoing maintenance.

TCNZ: Feedback on Draft Requirements Summary 2018

In 2018, TCNZ released a draft of their new requirements for ITE program approval. After a consultation period, they released a summary of the feedback they received. In the feedback, TCNZ (2018) describes "strong support for authentic partnerships and putting in place the key factors needed for professional experience placements to be effective" (p. 4). These are the factors from the Whatman and McDonald (2017) report. In their response to the feedback they received, TCNZ acknowledges that "the kind of partnerships envisaged in the literature won't happen simply by setting a requirement" and that putting these partnerships in place will "need leadership from all parts of the profession" (TCNZ, 2018, p. 4). TCNZ positions providers and partners as jointly responsible for a range of tasks, from the conceptual framing of a program, through selection to assessment and judging if student teachers are ready to teach. This is to enable "far greater confidence that they are equipped for their first teaching role" (TCNZ, 2018, p. 4) than current practice. To be 'pragmatic', TCNZ proposes to ask for a partnership plan as part of initial approval processes, recognising that it might take a while for the rights and duties associated with ITE to be redistributed and shared amongst the partners. They also propose increasing the length of professional experience placements, which assigns additional duties to schools, while positioning in-school experience as more valuable than other forms

of learning in ITE. They finish by acknowledging "that these changes will require additional resourcing and (we) are actively working on how the funding and resources available might be realigned within the system to enable these new expectations" (TCNZ, 2018, p. 5). The key storylines taken up in this summary and response are.

- Authentic partnerships will increase ITE quality and the quality of graduates.
- ITE providers need partner input to produce quality programs.
- Partnership will increase confidence in the system.
- This work is time consuming and expensive but needs to be accomplished without additional resourcing.

Braided Storylines

As these eight key speech acts build on and respond to each other between 2017 and 2019, we can see storylines being braided together. Some storylines recur: ITE is weak, divided (theory–practice and provider-profession), unbalanced (theory–practice and provider-profession), under-resourced and unclear about its role and the role of the profession. Calls for clarity, alignment, coherence, 'seamless' experiences, integration and balance are repeated through the 2017–2019 period, alongside acknowledgement of the resourcing implications of shifts to greater involvement by the profession.

Requirement 1.3 tries to address these storylines. The solution is to embed involvement by the profession in ITE by requiring 'authentic partnership'. In Requirement 1.3, authentic partnership underpins all phases of teacher selection, preparation and assessment and all key program design decisions. Partnership is no longer just about practicum, the space where it originally arose in 2016. ITE itself is repositioned through policy as a joint endeavour.

Conclusions

The re-approval of existing ITE qualifications will be complete by 1 January 2022. New qualifications and new providers have also emerged for approval. Positioning theory's concepts of willingness, capability and power now come into play. When programs are approved, they can receive conditions that must be met before they are taught. A condition can be placed on any of the twenty-one requirements. As of July 2021, 23 conditions had been placed on Requirement 1.3. The next highest number of conditions on a requirement was 10, indicating that partnership is clearly the most difficult requirement for providers to meet (TCNZ, 2021). New types of partnership are emerging, for example with regional development organisations (Te Rito Maioha and Far North REAP, 2021) and iwi organisations (Wintec and Waikato Tainui College for Research and Development, 2021).

Throughout the speech acts analysed here, the partners are presented as institutions, but to make partnerships between institutions happen a network of interpersonal relationships needs to be developed. Requiring authentic school–university partnerships shapes the work of teacher educators and school leaders and teachers as people. Future analyses will be able to describe whether the system, and the individuals within it, has the willingness, capability and power to take up their assigned rights and duties and create authentic partnerships that improve ITE outcomes.

The analysis presented here teaches us that school–university partnership is seen by TCNZ, ERO and NAMSA as critical to effective ITE. As the conversation about partnership has developed through the 2017–2019 period, we have learned how differently positioned participants in the ITE system understand partnership and what its features need to be from their perspectives. ITE providers have meanwhile been developing school–university partnerships in order to meet the ITE requirements, with mixed results. Partnerships as described in the 2019 requirements (TCNZ, 2019) are hard for many providers to establish and to maintain, while for smaller and more agile providers, partnerships can provide a route into ITE provision. Dialogue between ITE providers, the Teaching Council and centres, schools and other partners is ongoing, and seeing how the programs developed under the 2019 requirements (TCNZ, 2019) perform will be the next step in learning about partnership in ITE from a policy perspective.

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Chapter 3
Leveraging Existing Policy for a University/K-12 Partnership: Using a Teacher Residency and Induction Model to Address a Teacher Shortage in Virginia, USA

Deborah Napoli, Laura Kuti, and Bob Spires

Introduction

In the fall of 2018, leaders from a large urban–suburban K-12 school division located in the Southwest region of Virginia met with education faculty from the University of Richmond to discuss a teacher shortage which found school administrators scrambling to fill an overwhelming number of vacant positions. The need for teachers had become so acute that the director of human resources asked university faculty to provide a list of teacher candidates who had yet to complete state teacher licensing requirements, so they might immediately recruit these unqualified graduate students into full-time teaching. At this point, university faculty were not surprised by the request, as the practice of hiring unqualified teachers with little classroom experience had steadily increased over the years. Regional school divisions relied on an existing temporary licensing policy to quickly staff classrooms in this way. (Virginia Department of Education [VDOE], n.d.). The potential for the continuation of this hiring practice to negatively impact student achievement, teacher effectiveness, and teacher retention was not lost on those attending the meeting.

It was at this critical intersection of policy and practice where the school-university partners realized the need for an innovative way to mitigate against the impact provisionally licensed teachers might have on students, particularly our most vulnerable

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students. Subsequent meetings led to deeper and more meaningful partnership practices and eventually to the innovation of a new teacher residency and induction model. The model is designed to allow continued use of the existing temporary licensing policy to fill vacant teaching positions, while simultaneously employing it as a mechanism for improving teacher recruitment practices, ensuring quality preservice clinical practice and increasing teacher effectiveness and retention. All of this could now be accomplished while meeting the short-term need to fill vacant positions and maintain cost neutrality.

The work of this school-university partnership suggests an approach to the policy/practice nexus within teacher preparation that moves stakeholders toward collaborative inquiry in order to imaginatively search for novel solutions to problems of practice within existing, and sometimes problematic, policy frameworks.

This chapter begins with a description of the national context in which the teacher shortage in Virginia is situated and summarizes the state and regional landscape of inexperienced and unqualified teachers employed in high-poverty K-12 schools. Next, the school-university partnership is framed as a response to concerns about the use of a temporary licensing policy as a short-term solution to the critical teacher shortage. The resulting School-based Teacher Education program (STEP) model is then described in terms of its novel use of the existing temporary licensure policy to fill vacant positions, provide teacher candidates with a paid residency and offer intensive/prolonged coaching to STEP participants during their first year of fully licensed teaching. Promising preliminary findings from data collected and analyzed during the first two years of implementation are presented as well as considerations and next steps for the partnership and program model moving forward. Practitioners and scholars interested in developing new partnership models or creatively working within existing policy and funding limitations may find this approach and example useful. Teacher educators as well as practitioners might draw on this example to inform and inspire future efforts to improve teacher recruitment and retention through school-university partnerships.

Virginia's Teacher Shortage Within the National Context

A shortage of qualified teachers in the USA has reached a crisis point after years of growing political, economic and social pressures (Cross, 2017; Garcia & Weiss, 2019; Ross, 2018; United States Department of Education, n.d.) that go beyond the scope of this chapter. The shortage is in part a result of a nationwide trend of declining enrolments in formal teacher education programs (Camera, 2019; Partelow, 2019), but as Espinoza et al. (2018) noted, "About 90% of the annual nationwide demand for teachers has been created by teachers leaving the profession. In recent years, annual attrition in the U.S. has averaged about 8% of all teachers" (p. 1). As a response, federal and state departments of education have implemented teacher certification policies aimed at putting teachers in classrooms quickly. This has led to increasing numbers of unqualified teachers in classrooms across the USA (Learning

Policy Institute, n.d.) and certainly the local context in Virginia is facing these issues. Espinoza et al. (2018) argue this quick-fix approach may exacerbate the problem in the long term as "educators with little to no pedagogical preparation are 2—3 times more likely to leave the profession than those with the most comprehensive preparation" (p. 8). Though not new, the use of alternative pathways to teacher licensure has become more commonplace. In some cases, these pathways were originally envisioned as emergency stopgap measures but are now used as key supply lines for new teachers into classrooms (Mastrippolito, 2019). This is increasingly the case for high-poverty schools and communities (Darling-Hammond & Carver-Thomas, 2016; Garcia & Weiss, 2019).

The result is a growing number of unqualified or underqualified teachers who are provided little training before employment and patchwork professional growth and coursework opportunities during the first few years of teaching (VDOE, n.d.). Teachers with a provisional license have not completed all professional studies coursework to contribute to their understanding of classroom management, pedagogy, assessment practices, educational technology or diversity in classrooms and students with differing academic abilities. Additionally, teachers with provisional licenses do not have the opportunity to engage in supervised practice. Instead, they are solely responsible for their own classroom from day one. The lack of knowledge and supervised practice makes those with provisional licenses both underqualified and inexperienced classroom teachers.

In Virginia (much like the rest of the USA), the teacher shortage has greatly impacted K-12 education where the number of unfilled teaching positions increased an alarming 150% in the past decade (Virginia Board of Education, 2020). Although this sharp increase can be partly attributed to an uptick in public school enrollment over the same period of time, approximately 20% in grades 9–12 and 5% in grades K-8, it is important to note that the overall teacher attrition rate held steady at approximately 10%, and the number of graduates from teacher preparation programs in Virginia increased by 11%, counter to a national decrease over the same period of time (Virginia Board of Education, 2020). Sorensen et al. (2018) took a closer look at *where* the majority of vacant positions existed in Virginia and found that the shortage existed mainly in regions with the highest concentrations of poverty where student enrollment and teacher attrition are increasing at a rate faster than the state average. In the decade prior to the COVID-19 pandemic, the number of economically disadvantaged students in public schools in Virginia increased by over 100,000 students (Virginia Board of Education, 2020) and may have increased even more due to the effects of the pandemic as this number was reported in early 2020.

To fill vacant teaching positions, many Virginia school divisions increasingly hire unqualified teachers. Currently, over 10% of teachers employed in high-poverty schools across Virginia are unqualified, compared to only 6% in low-poverty schools (VDOE, n.d.). In 2018, the Learning Policy Institute found that Virginia's proportion of uncertified teachers was 3.2%, compared to the national average of 2.6%, with 11% of Virginia's teachers planning to leave the profession (compared to 7.3% nationally). Combine these reports with statistics indicating that turnover rates nationwide in high-poverty schools are almost 50% greater than schools categorized as low

poverty (Carver-Thomas & Darling-Hammond, 2019), and we begin to understand the teacher shortage in Virginia as a problem that is primarily rooted, perpetuated and most critical in schools that serve a large number of students living in poverty. Senechal et al. (2016) offer a possible reason for this in their examination of teacher morale in the Richmond region and its effect on attrition. They found that, "Differences in socioeconomic and racial ethnic diversity of the students served by the school influenced teacher's job role expectations, and the ability to realize job satisfaction and high morale" (65). In high-poverty schools, these differences include less autonomy in curriculum and classroom level decision-making, a perceived inability to meet the needs of students and pressures created by the need to attain or retain school accreditation by meeting minimum standardized test scores.

The K-12 division in the school-university partnership that created and implemented STEP reports numbers of inexperienced and unqualified teachers similar to the state average. The percentage of inexperienced teachers (teachers in their first or second year of teaching) in high-poverty schools within the division averages 7.2%, whereas the percentage of inexperienced teachers in low-poverty schools within the division averages 2.3% (VDOE, n.d.). School-university partnership leaders and faculty acknowledge that hiring uncertified teachers as a short-term solution to fill vacant positions will negatively impact students who are economically disadvantaged the most, thereby increasing existing inequities between high-poverty and low-poverty schools in our region.

Existing Practices to Address Virginia's Teacher Shortage

The Virginia Career Switcher Alternative Route to Licensure is currently the only statewide alternative pathway that is designed to place teachers in classrooms faster than traditional programs while also requiring prerequisite coursework and built in supports. The Career Switcher program was passed by the state legislature in 1999 in response to a growing teacher shortage in grades 6–12 (VDOE Briefing, 2008). Since 2004, the program has trained approximately 100 teachers per year across the state (EducateVA, n.d.). Not only are the number of teachers trained using this pathway small, but the effectiveness of alternative route programs such as these are mixed as Espinoza et al. (2018) noted: "…teachers who enter the profession through alternative certification pathways are 25% more likely to leave teaching than other teachers, even after all the other factors are taken into account." (p. 8). Yet Wilcox and Samaras (2009) found that participants in the state's Career Switcher program greatly benefitted from strong mentor relationships, support from university as well as school leadership and collaboration with colleagues. These features of the Virginia Career Switcher program noted as valuable by participants have also been identified as indicators of quality first and second year teacher-induction programs which positively affect turnover rates (ACSD, 2004). Although the Virginia Career Switcher Alternative Route to Licensure program has its merits in terms of overall cost and teacher support, it has little promise as a comprehensive solution to the current teacher

shortage as it is not designed to immediately fill vacancies (it requires preliminary coursework before an applicant can be hired), small numbers of participants have been trained across almost two decades and the likelihood of program participants ultimately leaving profession.

With no viable alternative licensure pathway on which to rely, school divisions increasingly use the *provisional licensing policy*, originally enacted in 1982 (Cornett, 1990), as a de facto alternative pathway in order to quickly staff schools (Virginia Board of Education, 2018). This policy allows administrators to hire teachers who hold a bachelor's degree in a related field. No other education coursework or teaching experience is required, and provisionally licensed teachers can remain in the classroom for up to three years before they are required to submit proof of meeting minimum coursework and testing requirements (LIS Virginia Law, 2020). After being hired, provisionally licensed teachers are given little guidance on when, how, or where to complete their requirements within the three-year deadline. These unqualified teachers who have little experience in schools are typically not identified by school leaders as needing more support than fully trained and licensed first-year teachers. They are not given support for managing their new job responsibilities alongside the rigors of coursework and testing requirements, and are often provided with mentors who teach full time while simultaneously supporting all new teachers in their buildings (Virginia Board of Education, 2018). Filling vacant positions by using the existing provisional licensing policy in this way has negative impacts on students and the overall education system (Papay et al., 2017; Ronfeldt et al., 2013; Sorensen & Ladd, 2020). As Ingersoll (1999) noted, the use of unqualified or underqualified teachers is an issue that has been building in the USA for decades and disproportionately impacts high-poverty schools, high minority schools, as well as particular subject areas such as secondary mathematics in those schools. Further, Ingersoll (1999) argued that the teacher shortage and corresponding increase in unqualified or underqualified teachers in public schools were due in part to "the continuing treatment of teaching as semi-skilled work" (p. 34) as evidenced by policies created to circumvent pedagogical training.

It is within this national, state, and local context that faculty working within the university teacher preparation program began to see an increase in school division recruitment and hiring of graduate students enrolled in the university's master degree/teacher licensure program before graduation. These graduate students are understandably tempted by the salary and benefits that accompany a temporary teaching contract through provisional licensure, and once hired they often exit the university program and delay completion of the VDOE minimal requirements for full licensure, including coursework and assessments.

In light of the concerning practice of using the provisional license policy to quickly fill vacancies, one school-university partnership creatively repurposed the policy and efficiently reallocated existing institutional resources to develop a financially sustainable, research-based, paid pre-service teacher residency and first-year induction support model. The model allows the school division to continue immediately filling vacant positions in high-poverty schools, but with pre-service teachers who are assigned a full-time, in-house coach and who remain enrolled in the university

graduate program during their residency year. Upon successful completion of their residency and graduation from the university program, fully qualified and licensed residency graduates are offered a position in one of the high-poverty schools within the partnering division and provided with a non-evaluative, non-reporting university adjunct faculty member to serve as their instructional coach throughout their first year of fully licensed teaching. A more detailed description of the model is presented in the next section.

The STEP Residency and Induction Program

The critical teacher shortage and the use of a provisional licensing policy to quickly fill vacancies in high-poverty schools prompted the university and school division partnership to develop the STEP residency and induction model. The model employs the same provisional licensing policy used as an emergency stopgap measure to recruit students away from the university preparation program. The partners piloted the model starting in the fall of 2019 with the third year of implementation beginning in the fall of 2021.

Before traditional teacher education students in Virginia can be fully licensed by the state, they must complete a supervised, long-term clinical classroom experience. Students at the researcher's university complete 15 weeks of unpaid student teaching as a guest in a cooperating teacher's classroom to meet this requirement. In contrast, students participating in the STEP program complete a one-year residency and are paid approximately one-half of a new teacher starting salary, including full benefits, by the partner division. Residency programs have been found to have great potential to develop a diverse and effective teacher workforce (Guha et al., 2017) and to positively impact student achievement (Papay et al., 2012). During the student's residency year, a veteran teacher is released from all classroom duties to mentor, coach, model, co-teach and generally support two university residents who are placed in the same school. The vacancy created by the veteran teacher is filled with a STEP resident at one-half the cost of a new teacher salary, with a second resident filling an existing vacancy within the school. These released veteran teachers are called STEP resident coaches. Veteran teachers must apply for and be chosen by partnership designees to serve as coaches/mentors to STEP residents. The partnering division must allow the STEP resident coaches to be released from all classroom instructional duties while continuing to pay their regular salary. Partners then share existing resources to provide STEP resident coaches with ongoing professional development to strengthen their work with residents throughout the year.

The second layer of support in the STEP model allows for the university to provide one year of coaching and support to STEP resident graduates who are in their first fully licensed year of teaching, also referred to as the induction phase. This support was designed by partners based on research indicating that new teachers tend to leave the profession primarily due to factors related to negative attitudes and beliefs about their own practice and the profession in general (Darling-Hammond & Podolsky,

Table 3.1 Traditional student teaching and STEP residency cost structure comparison

School A has one teacher vacancy for the upcoming academic year:	
School A fills the vacancy traditionally	School A becomes a STEP partner
School A hires a new teacher to fill the original vacancy (**Cost = 1.0 teacher salary + benefits**)	School A hires STEP Resident #1 on a resident contract to fill the original vacancy. The division pays the resident one-half of a new teacher salary + full benefits (**Cost = 0.5 teacher salary + benefits**) School A hires STEP Resident #2 on a resident contract to fill the vacancy created by a qualified veteran teacher who is released from classroom duties to mentor/coach both residents. The division pays resident #2 one-half of a new teacher salary + full benefits **(Cost = 0.5 teacher salary + benefits)**
Total cost to division= **1.0 teacher salary + 1 benefits package**	Total cost to division = **1.0 teacher salary + 2 benefits packages**

2019). Instructional coaching has proven to help teachers develop efficacy in thinking about their own practice and can greatly improve practicing teacher's attitudes about teaching (Aguilar, 2013). University funds and resources allocated for student teacher supervisors were therefore redirected to fund coaches who support graduates during their first year of fully licensed teaching after the residency.

The STEP model is designed to be implemented in a way that is virtually cost neutral for the partnering school division and the university. STEP does not rely on grants or other temporary funding sources to remain sustainable. Essentially, the program costs the K-12 school division one additional benefits package for every two residents. Table 3.1 details the cost structure of the STEP residency.

Benefits of STEP Program and Partnership

Opportunities for Promotion

For experienced teachers, there are financial incentives to accrue years of service. Additionally, work on curriculum projects in the summer or summer school, coaching, and other small-scale financial incentives is often available. However, none of those involve promotion. For promotion, the clearest paths are to be a grade level or team lead, but that often comes with minimal or no financial incentive. The clearest path to promotion is to work toward a leadership certification/endorsement and serve as an assistant principal or principal. For many teachers, their professional trajectory does not include being a school principal. Perhaps their interest is more focused on curriculum and instruction within their content area or grade level. Seminal research

regarding lack of promotional opportunities contributes to teacher attrition (Lowenstein, 1991). Teacher retention can be affected by the opportunity for collaboration and mentoring or coaching (Lambert, 2003). While these collaborative and coaching opportunities contribute toward teacher retention, more opportunities that incorporate collaboration and mentoring are needed (Lumpkin et al., 2014). By focusing on areas that support teacher retention and recognizing the significance of promotion to leadership and coaching roles in retaining teachers, partnership opportunities like STEP might be used to impact teacher retention.

Financial Incentives

According to Carrig (2018), "The national average public-school starting teacher salary for 2016–17 was $38,617". Compare this to the $50,359/year average starting salary for those holding a bachelor's degree in other fields and consider the average $30,100 of student debt per borrower, and it becomes apparent why teachers experience a significant amount of financial stress. For pre-service teachers who are changing careers, there is concern about leaving their current job and forgoing benefits in order to complete a traditional student teaching experience. Because traditional student teaching is a semester or year-long unpaid internship, candidates who have family or other financial responsibilities may be left without income and health insurance for an extended amount of time, only to face a high student debt to income ratio once hired as a classroom teacher. This alone may push potential teachers away from teacher education programs. Therefore, a paid residency such as the STEP program that also includes full benefits is incentivizing to those who might either choose an alternative pathway to licensure or choose to not enter the teaching profession at all.

Teacher Pipeline and Retention Supports

Recruitment and retention of quality teachers is always a priority for K-12 school divisions, but this priority is made even more important due to the current dearth of available candidates and exodus of practicing teachers. Education researchers have long been searching for the conditions under which an effective teacher will remain in the profession for the arc of their career. Several conditions continue to dominate their findings including: rigorous and relevant preparation programs (Gray & Taie, 2015; Katz, 2018; Quartz et al., 2008), high-quality and intense 1:1 new teacher mentoring/coaching (Gray & Taie, 2015; Ingersoll & Strong, 2011; Knight, 2016), teacher efficacy or confidence in their abilities to perform well in the classroom (Katz, 2018; Tschannen-Moran & Tschannen-Moran, 2010) and the opportunity to grow professionally, diversify instructional and leadership duties and be acknowledged for such efforts. (Ingersoll, 2003; Johnson, 2012). An important benefit of the STEP program for the school division is the direct pipeline of teachers from the university

preparation program to the classroom that is established during the residency and is supported during the teacher's first year. Additionally, the promotion of veteran teachers to STEP coaches supports the current professional education trend to grow leadership from within and supports teacher retention.

Preliminary Findings

Teacher efficacy refers to the beliefs teachers hold about their own ability to affect student learning and achievement, especially with students who are considered difficult to engage and appear unmotivated. Teacher efficacy has been found to be a product of instructional coaching and highly correlated to student motivation, engagement and achievement as well as teacher persistence, resilience and intention to remain in the profession (Ross, 1992; Shidler, 2009; Tschannen-Moran et al., 1998; Zee & Koomen, 2016). Using Tschannen-Moran, Hoy and Hoy's Teacher's Sense of Efficacy Survey (1998), data was collected from STEP residents and STEP graduates in their first year of teaching at the beginning, mid-point and end of the school year. Those who completed the STEP residency and engaged in STEP graduate induction support from 2018 to 2021 were found to have significant increases in efficacy over time, especially in areas related to student engagement and instructional strategies. Evidence of high teacher efficacy in STEP participants is further strengthened by data collected and analyzed from interviews with residents, graduates, coaches and school administrators. The principal of the school in which four STEP residents practiced from 2018 to 2019 hired all four immediately after completion of their residency and indicated that "their resilience, talent, and ability to connect with the students" surpassed other traditionally prepared fully licensed first-year teachers in her school. Analysis of STEP resident interview data indicated that three out of the four residents intend to stay in the teaching profession long term and plan to remain in high-poverty schools. The fourth resident indicated that he plans to become a school administrator and serve teachers and students in high-poverty schools.

Analysis of STEP participant interview data also points to important benefits for veteran teachers. These are the experienced teachers who cycled out of the classroom in order to support residents as STEP coaches. They report that although the pilot of the model felt chaotic initially, overall the STEP coaching experience served to help revitalize their own practice and increase efficacy and improve their attitude about teaching and their worth as experienced educators, all factors that have been shown to increase veteran teacher retention and enhance student experiences (Bressman et al., 2018; Zee & Koomen, 2016).

Initial analysis of data collected thus far, although not conclusive, indicates the STEP model addresses many of the issues contributing to the teacher shortage in high-poverty schools while simultaneously improving upon the quality of teachers in classrooms.

Considerations and Next Steps

Communication and Shared Responsibility Within the Partnership

The innovative and financially sustainable use of an existing policy to design the STEP program prompted a few high-level partnership leaders to become involved in the development of the model. In the first two years, the both school and university partner leaders have recognized the need for flexibility and responsiveness as important to improvement of the STEP program. Negotiation between partner leaders continues through regular and ongoing biannual meetings.

Because residents must be placed on a provisional license, they become not only the responsibility of the university as a student but also of the school division as an employee. The same shared responsibility between partners that led to regular communication and collaboration among higher level leadership created considerable problems as the program was first enacted within schools. For instance, it proved difficult for division staff and school-site leaders to make the shift necessary to think of provisionally licensed STEP residents as pre-service university students instead of school division employed first-year teachers. The attitudes, systems and common practices for shepherding other provisionally licensed teachers through their first and second year were often applied to STEP residents in a way that was counter to the original purpose of the program. Similarly, university leaders experienced difficulty understanding the constraints on resident placements and first-year fully licensed employment for STEP residents and graduates that accompanied the employed status that allowed them to be paid. In order to address these and other issues, we have created an advisory council composed of stakeholder representatives from both the university and school division who operate across various organizational functions and levels of leadership.

Enactment of a New Teacher Preparation and Support Model at the School Site

Regular and meaningful communication and collaboration between school division leadership and university faculty have proven to be fundamental in the development of a shared vision and some program processes and procedures. However, we have found that if there is little understanding, buy-in and collaboration at the school-site level, the enactment of the partnership model may look very different than intended. This is especially true when the partnership requires ways of operating that are new to all involved. If a STEP resident faces a challenging classroom situation, both the STEP resident coach and the school administration should coordinate on appropriate next steps. The university should provide support and training, and the school division should do the same. School administrators do not typically work under these circumstances when hosting more traditional pre-service practicing teachers and

released teachers who are new to STEP resident coach positions are not accustomed to collaborating with administration in a supervisory capacity. The expectation for this type of multileveled and cross-institutional collaboration is atypical, and partnership participants at the school site must intentionally operate in ways that differ from the norm.

Understanding that effective program implementation requires ongoing adaptation, and that flexibility is key, has helped the stakeholders to remain collaborative, communicative and trusting. The STEP program is a project in motion and will continue to take shape over time.

Next Steps

Based on the considerations above, the researchers have established several tangible next steps as we embark on our third year of new program implementation. First, we hope to develop a robust advisory board that can inform our ongoing work. Next, we intend to solidify processes collaboratively in a manner that is mutually beneficial to all stakeholders. Third, we will continue to expand and improve training for field supervisors and onboarding for principals in a sustainable manner, and the school-university partnership team is currently seeking grant funding to further expand the project. Finally, we will continue to collect data from diverse sources and use that data to drive decision-making.

Conclusion

This chapter has explored the STEP program, an ongoing and iterative teacher residency and induction partnership in Virginia within the context of a nationwide teacher shortage. The STEP program is an attempt to bridge a gap created by the current teacher shortage by meeting the university's need to ensure unprepared and unqualified pre-service teachers complete the program and the K-12 school partner's need to fill vacancies and keep teachers in high-poverty schools. University faculty and K-12 school leaders were able to leverage an existing and potentially harmful policy in order to meet the needs of both partners and ultimately benefit students who are economically disadvantaged. The STEP program is a useful and practical model that others may consider employing to think beyond the constraints of current policy. However, like the partners enacting the STEP program, readers should expect barriers and push through them, remembering that an elegant solution to one stakeholder may not appear so to another stakeholder. Finally, readers should bear in mind the challenges to shifting paradigms in current practice, and those tasked with teacher education, recruitment and retention are not immune to the reluctance to make major changes and innovate when policy does not match the need.

As noted above, building and maintaining partnerships with stakeholders is an ongoing and iterative process and must remain a priority to ensure success of the program in the future. Regular meetings and celebratory events help maintain group cohesion and build a sense of community among stakeholders. The COVID-19 pandemic has given even further evidence of the importance of in-person meetings, and the authors intend to continue planning collaborative events and opportunities for stakeholders to communicate. The authors are continuing to tailor coursework associated with the residency year to address the common issues that residents experience, such as classroom management and time management. Procuring additional funding will remain a priority for the future of the program and in order to continue to expand beyond current program limitations. The authors intend to expand collaboration with the State Department of Education and other higher education institutions with the intention of extending the stakeholder community beyond current partners. Finally, sharing the successes of the program with the public with the hopes of increasing the recruitment of teacher residents is a top priority for the future.

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Chapter 4
Service Learning During Lockdown: A School-University Rural Community Outreach Partnership in the Philippines

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Introduction

Service learning is a form of "community engagement pedagogy" that combines learning goals and community service within a university course program in universities to contribute to both student growth and community development (Bandy, 2011). In essence, service learning, as Bringle and Hatcher (1995) explain, bridges the theory of service learning to the actual practice of serving real communities. This happens when university students participate in organised programs that provide them with opportunities to develop a deeper sense of connection and responsibility for the welfare of their community through identifying social needs. With this, students gain a fuller understanding of course content, cultivate a broader appreciation of community service and, ultimately, deepen their sense of civic responsibility and social consciousness (Anorico, 2019; Whitehead, 2015). Service learning therefore benefits both the students and their immediate communities due to university students learning from the service programs and at the same time addressing the needs of the communities (Bringle & Hatcher, 1995). This "reciprocity" becomes the cornerstone of service learning (Anorico, 2019; Furco, 1996; Honnet & Poulsen, 1989;

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Oppe, 2001) because as it fosters relationships between universities and their partner communities, it also allows universities to fulfil their institutional mission towards social involvement and responsibility.

While an "attractive and worthwhile pedagogy" (Adarlo & Marquez, 2017, p. 925), service learning is however argued to be a "cumbersome pedagogical approach" (Adarlo & Marquez, 2017, p. 928). This is because service learning, in contrast to classroom-based teaching, takes more time in providing students with meaningful learning experiences, which could compromise the time allotted for the discussion of academic content. This proves problematic in some universities that offer undergraduate programs where students (i.e. pre-service teachers) must pass content-based licensure examinations in order to practise their chosen careers. Not only can it be cumbersome, service learning can also be tedious and expensive for some universities in specific cultural contexts given the need for readily available learning materials, adequate funding, and well-organised logistics in coordinating with partner school communities (Adarlo & Marquez, 2017). In getting both students and instructors involved in real-world applications of academic learning, service learning, as Kaye (2010) argues, also requires an extensive amount of flexibility, particularly when confronted with unforeseen situations and unavoidable circumstances, such as natural calamities and the current COVID pandemic (Kaye, 2010, p. 10). This need for flexibility in implementing service learning has been extremely challenging in the Philippines as typhoons hit the country in the early months of 2020 while still under a nationwide COVID lockdown. Despite these confronting events, higher education institutions in the Philippines continue their service-learning programs, albeit with some extensive adjustments given the drastic shift to online teaching and learning.

As service learning starts to be incorporated into the Philippine higher education curriculum as a course-based program, colleges and universities are taking necessary steps to contextualise their programs to suit the local needs of their immediate communities, and most importantly, to strengthen their linkages with partner schools. With this, the Philippines has become one of the countries whose experience with service learning has demonstrated unique context-based modifications in their implementation (Adarlo & Marquez, 2017). This suggests that Service-Learning programs in the Philippines are continuously (re)conceptualised to adapt to the present situation and the evolving needs of partner schools, especially those in disadvantaged communities. For instance, given that the Philippines is a country where typhoons and other natural calamities commonly occur, post-disaster relief operations have been incorporated into the service-learning programs in colleges and universities in promoting transformative learning among its student volunteers (Adarlo & Marquez, 2017). These service learning "disaster rehabilitation volunteer programs" become the avenue for Philippine universities to assist partner schools in rebuilding their communities by engaging university students and teachers as volunteers. Therefore, disaster rehabilitation volunteerism has become a central theme of the service-learning programs in most Philippine colleges and universities.

As colleges and universities continue their service-learning programs, they are taking necessary steps to examine the impact on students and partner school communities, particularly in this changing time of the pandemic. One of these universities is Ateneo de Naga University (ADNU), which given its geographic location has extensive experience in typhoon-rehabilitation service-learning programs with its partner schools in disaster-prone communities. As ADNU starts incorporating service learning into its curriculum, it then becomes necessary to gather and examine early qualitative feedback on the course-based service learning of the university for quality and transformative assurance of its programs with its partner communities. To achieve this aim, this study inquires into ADNU teacher-education student's perceived value of a course-based service-learning program in their training as future teachers, where they volunteer in teaching literacy skills to public-school pupils in remote, rural communities. The perceptions of the rural public-school pupils, their parents, and teachers towards this service-learning program are also examined.

In the subsequent sections, the discussions cover how university-school partnerships are a vital component of service learning, what this partnership looks like, and why they are implemented in the Philippines, particularly in ATNU's College of Education. This is to provide a context in which we can better understand the views of the Filipino teacher-education students towards the service-learning programs and ADNU's university-school partnerships more broadly.

School-University Partnerships Within ADNU's Service-Learning Programs

Ateneo de Naga University is one of the Jesuit universities in the Philippines established in 1940. Prior to its *University Policy on* service learning in 2019, the university previously established school partnerships. In the late 1990s, ADNU created its Centre for Community Development (CCD), which is the office designated to organise service-learning programs in the form of community outreach and immersion activities to strengthen ADNU's linkages with its partner schools. Later in 2012, the University Social Involvement Council (USIC) was created to manage the university's community involvements and service-learning programs in close coordination with its partner schools and their local government units (ADNU, 2021).

Within the context of ADNU, service learning is understood as community-service activities that support voluntary work but with an emphasis on education (Fabay, 2019). Service learning "combines a strong social purpose with acknowledgment of the significance of personal and intellectual growth among the participants" (Fabay, 2019, p. 1). There are two main categories of service learning in ADNU, both of which seek to foster its university-school partnerships. Firstly, the extra-curricular service learning (ECSL) includes community-service and volunteer-oriented activities initiated by either an institutional office or student organisation in partnership with a local community. Secondly, the course-based service learning (CBSL) refers

to the same activities initiated by the students with their course instructor as part of the academic course or curriculum they are enrolled in (Fabay, 2019). The community-based activities initiated as either ECSL or CBSL are then closely coordinated with the designated service-learning offices of ADNU and the local government units of the partner communities. To support the ADNU service-learning initiatives to foster its university-school partnerships, a funding provision called *Social Involvement Fund* is sourced from the *Social Involvement Fee*, which is included in the student's tuition and fees. Additional support from the local government units of the partner schools comes in the form of services (rather than financial aids) offered by the members of the communities or through pledges from donors and sponsors. To secure program transparency and accountability, the organisers of the community-service activity are then required to submit a Final Financial Report (FFR) following a prescribed form ten days after implementing the activity (Fabay, 2019).

With the changing times brought about by the pandemic and made more difficult by natural calamities in the Philippines, ADNU faces challenges not only in delivering its service-learning programs to its partner schools but also in engaging its students as onsite volunteers, given the safety protocols and quarantine restrictions. With such challenges, the university is then required to exercise some degree of, using Kaye's (2010) words, "flexibility" in implementing its service-learning programs in times of unforeseen and confronting events. This then calls for the faculties of ADNU, especially its Faculty of Education, to make necessary adjustments in continuing their onsite community service-learning programs given the drastic shift to online teaching and learning. The flexibility of the university's Faculty of Education in implementing its service-learning programs in the time of the pandemic is discussed further in the next section.

Fostering University-School Partnerships Through Service Learning

ADNU has six faculties (or colleges). One of which is the College of Education, which is recognised as a national "Centre of Excellence for Teacher Training and one of the top-performing teacher-training universities in the licensure examination for teachers" in the Philippines (ADNU, 2021). Most of ADNU's education-related service-learning programs are spearheaded by its College of Education.

To align its aim of "developing competent, compassionate, and committed teachers specialising in the content and pedagogy of their chosen area of specialisation" to the university mission of "producing graduates who will contribute to the transformation of the nation through dedicated service to the Filipino community, particularly the poor", the College of Education places community-service learning at the heart of its teacher-training curriculum (ADNU, 2021, p. 1). This is shown by the College of Education creating strong linkages through a memorandum of agreement with its partner public schools. These linkages, upon consultation with the concerned

offices in the university and the local government units, were selected based on the socio-economic profile of the school's immediate communities. These community partnerships are further strengthened through the College of Education's service-learning programs, particularly its decade-old community outreach program, *Tulong Dunong* (roughly translates to "Help Knowledge"), which is a community-based literacy and numeracy tutorial program organised by teacher-education students in collaboration with ADNU's Centre of Community of Development, and implemented onsite by the student volunteers in the partner rural school communities.

ADNU Service Learning in the Pandemic

Building and Enhancing New Literacies Across the Curriculum is a specific professional education course offered under the College of Education in pursuant to the prescribed courses under the Philippine Commission on Higher Education (CHED) Memorandum Order (CMO) 75 series of 2016. This course aims to introduce prospective teachers to creative pedagogies in teaching both basic and new literacies in the twenty-first century as an evolving social phenomena and shared cultural practices across learning areas (CHED, 2017). To achieve this course objective, the CMO states that "field based-interdisciplinary explorations and other teaching strategies shall be used in this course" (CHED, 2017, p. 41). Given the aims and the prescribed field-based pedagogies surrounding EDUM301, it then becomes a suitable course program that service learning can be incorporated into and, most importantly, in which all enrolled students become the program volunteers themselves. It is important to note that a majority of these university students reside within the same towns as the rural pupils.

One of the major course requirements (comprising 30% of the final grade) of ADNU's College of Education students enrolled in EDUM301 is a course-based service-learning program in the form of *Reach and Teach*, a community outreach tutorial reading program implemented in one rural partner school of the college. In implementing this course-based service-learning program, each of the 30 teacher-education students enrolled in EDUM301 is required to implement the onsite community outreach reading program in three classes of 20 pupils each in the rural partner school. To carry this out, these university students create reading booklets that contain a short story written in the Bicol dialect spoken by both the rural pupils and the university students. The stories, which are originally written by the teacher-education students, revolve around varied themes about Bicol culture. Apart from an original story, the reading booklet also consists of comprehension questions and instructions for creative activities for its readers to complete after reading the short story.

In March 2020, when the community outreach reading program was ready for implementation, the entire Philippines was under total lockdown. With ADNU placing significant restrictions on the implementation of its service-learning programs and other community outreach activities, along with its institutional policy on the shift to flexible online learning, the reading program under EDUM301 was

pushed through albeit with major modifications. Instead of conducting the originally planned onsite tutorial reading program in the partner rural school, the teacher-education students donated their reading booklets to the school principal who then delivered the copies to each home of his rural pupils. In lieu of an actual reading tutorial in the rural school, the teacher-education students created interactive tutorial videos that included the dramatisation of their originally written stories. These tutorial videos sought to guide both the rural pupils and their teachers on how to complete (and mark) the learning exercises required in the booklets. To further assist the rural pupils as they adjusted to their home-based module learning (especially after they were affected by the three consecutive typhoons in 2020), the teacher-education students initiated a "school-kit donation drive", which was participated in by ADNU students and alumni who donated pencils and notebooks for 100 rural pupils.

Given the extensive modification in its course-based service-learning program, ADNU's College of Education sought qualitative feedback on its reconceptualised tutorial reading program to better understand, how these "effectively link social involvement to the formation of students, including the training for their professions" (Fabay, 2019, p. 1).

Understanding Our Impact

Methodology

As the College of Education starts to incorporate service learning into its course programs in response to both the *Ateneo de Naga University 2019 Policy on* service learning and the *Philippine Commission on Higher Education 2016 Memorandum Order No. 55*, there is a need for analysis of qualitative feedback. This analysis includes the impact of its community outreach service-learning programs on the teacher training of its undergraduate students and, at the same time, how it meets the needs of its school partners. Consequently, the present study examines ADNU's teacher-education student's perceived value of service-learning programs in their training as future teachers. The perceptions of the rural public-school pupils, their parents, and teachers as the recipients of ADNU's service-learning programs were also examined. To achieve this aim, we used a qualitative research approach to address the following research questions:

1. How do the teacher-education students understand and value service learning within the context of university-school partnerships?
2. What do the pupils, their parents, and teachers in the partner schools find most and least helpful in the service-learning programs provided to them by Ateneo de Naga University's College of Education?

A qualitative research approach allowed for the researchers in this study to make meaning of the perceptions and understandings towards service learning from the

students *and* pupils who directly experienced the service-learning program themselves. This is important in this study because unlike other university-school partnership programs, service learning is created to "equally benefit the provider and the recipient of the service, as well as to ensure equal focus on both the service being provided and the learning that is occurring" (Furco, 1996, p. 12). This is why it is necessary for this study to examine the perceptions of both rural school pupils (as the recipient) and teacher-education students (as the provider) towards service learning to determine if the service-learning program delivered in fulfilling its purpose of partnership and reciprocity, whether the initiatives are actually beneficial to both students and pupils, and the service rendered is responsive to their needs and goals (Furco, 1996; Oppe, 2001). Most importantly, these perceptions can be used for evaluating the service-learning activities as these provide meaningful feedback for program improvement and redesign.

Semi-structured interviews were conducted with 21 ADNU teacher-education sophomore students and a total of 21 pupils, parents, and teachers from the rural partner schools of the College of Education. Of the 100 rural pupils who received the reading booklets from the college in March 2020, only seven of them (and a parent and a teacher for each of these seven pupils) were selected given health protocols placed in the province of Camarines Sur during the conduct of the interviews. The 21 college students were selected because of their extensive experience as volunteers in the community outreach service-learning programs organised by the College of Education for the past three years. Most importantly, these were the 21 teacher-education students who created the reading booklets used in the course-based service-learning program, *Reach and Teach.* The interviews were audio recorded, transcribed, and then thematically analysed first into small units that reflect specific ideas, then, grouped into categories under major themes. Once themes were identified, the researchers conducted a frequency count of the responses under each thematic category. The categories that emerged were separated into three types—general, typical, and variant (Heppner & Heppner, 2004). The identified themes were constantly re-analysed and then examined in the light of broader literature on service learning.

Findings

Service Learning for Teacher-Education Students

Examination of the teacher-education student's narratives shows that their responses point to the usefulness of service learning in teacher training. All teacher-education student participants in this study reported that their involvement in the service-learning programs under the College of Education prepared them well in their chosen career. For example, Jude found service learning as useful in "*developing practical and interpersonal skills of future teachers*" because, as he further explains, community outreach tutorial programs "*improved [his] confidence in front of the*

pupils". Similarly, another teacher-education student, Ella shares that in actively participating in service-learning programs, she is able to "*gain more experience working with diverse pupils from different communities, which inspired [her] to be a better teacher.*" Being exposed to such experience is also important to Anna because it allows her to "*apply the theories and teaching strategies appropriately*" to address the varied needs of her diverse students.

Moreover, service learning is also found to "promote personal development and enhance a sense of social responsibility" among pre-service teachers (Chambers & Lavery, 2012, p. 2). This is affirmed in participant's responses. Loy, who after transferring to ADNU from a different university, shares his unique service-learning experience from two different universities. Loy narrates, "*my community outreach experience here in Ateneo deepens my sense of purpose as teacher and as a person. Before I thought that an outreach is simply an academic requirement to improve your grades.*" Loy continues, "*but here in Ateneo, service learning takes a whole new meaning as I am pushed to serve the poor as I see poverty and all its faces through the lives of the rural pupils I meet in my outreach.*" Tina shares a similar sentiment and expresses, "*because of my outreach experience, I will never be the same student as I was before. From it, I learned what the teaching profession truly means. It's building the nation by educating the future generations*". Tina's and Loy's responses encapsulate the notions of Oppe (2001) and Berry and Chisholm (1999) on service learning, which claim that student's firsthand experiences in service learning allow them to become more reflective of their purpose in life as they develop a deeper sense of social consciousness. With this, service learning is able to produce proactive citizens who embrace social responsibility and transformation (Berry & Chisholm, 1999).

Service Learning as a "Cumbersome Endeavour"

While the teacher-education students reported benefits of service learning in their future careers, they also raised some challenges in implementing community service-learning programs. One such challenge is pointed out by Alyssa who finds service learning "*time-consuming and costly in terms of preparation and execution.*" The other teacher-education students share a similar sentiment and disclosed that they must "*shell out personal money to buy food or notebooks for the little siblings of [the] rural pupils who tag along during the community outreach reading program on a Saturday.*" As their parents work on the farm on weekends, the rural school children must bring their younger siblings to school as they "*were required by their teachers to attend the outreach*".

With these challenges surrounding service learning, the teacher-education students suggest that instead of enforcing attendance policies on the rural school pupils, the College of Education could allocate contingent funding to, as Noy suggests, "*provide the kids with say a kilo of rice or canned goods, which they can bring home to their families as soon as they come home from the outreach on*

weekends". This way, as Noy further explains, the "*parents become more motivated to send their children to school for the outreach on weekends instead of sending them to farms*". It is important to note that in the Philippines, sending a child to school costs many "sacrifices", especially for poor families. At an early age, Filipino children in rural farming or fishing communities are expected to contribute to their household (del Valle, 2020). Therefore, in poor farming communities in the Philippines, there is a notion of "foregone income" among children who are at school and not on the farms. While the Philippine constitution states that public education is free, Filipino pupils however are bound to pay for their education, given the cost of transportation, school materials, and uniforms for primary grades. In the Philippines, therefore, "free education is in fact not free, especially for poor households" (Okabe, 2013, p. 24).

At this point, it is necessary to examine the perceptions of the rural pupils, their parents, and teachers towards the value of the service learning delivered to them by the College of Education. This is necessary because the perceptions of young recipients of service learning provide honest feedback from their experience of the service-learning activity, which then can bring meaningful insight into the evaluation and redesign of the program (Shek et al., 2021). These perceptions, outlined in the following section, must then be examined as these contribute to resolving critical concerns within the service-learning program and to identify whether the service recipients truly need the services implemented (Weah et al., 2000).

Service Learning for the Rural Pupils, Their Parents, and Teachers

Analysis of the rural pupil's narratives shows that they had a strong preference for the reading booklets they received from the teacher-education students at the College of Education. These pupils speak energetically about how useful these reading booklets are and how they continue to use them in their learning at home. For instance, a pupil made a request for "*more reading booklets*" and for the college to "*do this again next year*". Three other rural pupils share a similar response, disclosing that the "*reading booklets are colourful and the stories are engaging because they are written in the dialect [they] speak*".

Feedback gained from the pupil's teacher (Mrs. R), displayed aspects of agreement with her pupil's feedback towards the reading booklets. While Mrs. R finds the "*reading booklets very effective*" in improving her pupil's reading comprehension, she also emphasised the need for more evaluation tools and supervision methods to determine a significant improvement of the rural pupil's reading comprehension over time. This encapsulates Adarlo and Marquez's (2017) claim that for course-based service-learning programs to be effective, they require "frequent teaching–learning moments in diverse settings, an explicit connection between learning and the service, and […] prompt monitoring of both students and community progress" (p. 929).

Need for One Sustained Partnership

With regard to the new course-based service learning in ADNU's College of Education, a different teacher (Mrs. O) suggests that if the focus of this program is on improving the public-school pupil's reading comprehension, then it could consider "*focusing on just one partner school which has to be visited and monitored at least twice a month to determine whether its pupils indeed improved their reading comprehension*". Instead of having too many university-school linkages, a focus on one school partner will, as Mrs. O emphasised, "*contribute to the quality assurance of the Ateneo service learning programs*". Mrs. O further comments that while the university has established strong linkages with its public-school partners over the past decades, most of which are however "*conveniently accessible for Ateneo de Naga*". Therefore, she further suggests that the university must consider "*creating school-university partnerships with much poorer public schools which are indeed difficult to reach as they are far removed from Naga City where Ateneo is located*". These schools in "*depressed areas*", as Mrs. O points out, must be the focus because "*these are those which really need help*".

This response from Mrs. O provides incentive for ADNU to further expand its service learning to more disadvantaged communities; it needs to weigh the positive outcomes of delivering its programs as part of its "Ignatian mission to serve the poor" (ADNU, 2021) *and* the possible risks placed upon its university students in reaching far-flung rural communities. This dilemma puts context to Adarlo and Marquez's (2017) notion of service learning as a "cumbersome yet worthwhile pedagogical approach" (p. 925) particularly when implemented in rural schools in the Philippines.

Need for "Local Needs Assessments"

The "cumbersome" nature of service learning is further pointed out by two of the rural pupils who disclosed that they "*feel burdened by the additional task required in the outreach*". This is because, as one of the pupils explains, "*I have to help with house chores because my mother is working. On top of chores, I also need to care for my younger siblings*." Other rural pupils shared a similar response explaining, "*farm chores take up most of my time. By the time I'm done with chores, I'm too tired to do anything else*." Within these rural pupil's narratives are their particularly telling stories about their experience in service learning, especially after the three consecutive typhoons that hit their town during the pandemic. One of these stories is Bing's, in which he narrates that his "*father used [his] modules as fuel to cook rice as all [their] firewood were soaked in the flood*". One of the parents of the rural pupil interviewed noted, "*it was a difficult decision for me to make do, especially seeing my son crying over his burnt modules, but what does a father need to do when his family needs to eat? Which is the better choice—education or food on the table*?".

This narrative from the rural pupil and his father provides a glimpse into the extreme challenges that the families in the rural partner communities of ADNU experienced in the time of the pandemic. The other parents within the same neighbourhood could not help but to share their sentiments. A parent of one pupil, Ms M raised, "*rather than [android] tablets, our children need learning modules so they continue school as classes stopped this pandemic. We don't have internet here in the [rural hills] so the tablets which [politicians] give to our kids are nice but useless*." Ms. M continues, "*what we need here are face masks and medicine so we can deliver our kid's modules to school for teachers to check*". Another parent, Mr. P adds, "*…and of course, more sacks of rice, clothes, and iron sheets so we can rebuild our house, which all of these Ateneo has already donated*". Mr. P adds, "*It's good that Ateneo asked first what our community needs rather than making assumptions of what we need because what they want to give are those we may not need, or actually do more harm than good like those tablets*".

The responses of the rural pupil's parents, particularly those of Mr. P and Ms. M, emphasise the critical need for colleges and universities that implement service-learning programs in rural communities to prioritise local needs assessments in the form of home visits (conducted by a few logistic organisers) before delivering the service. This way, as Weah et al. (2000) and Shek et al. (2021) note, these types of assessments and honest feedback can bring meaningful insights into improving the service-learning program attending to the true needs of its service recipients.

Conclusion

Now more than ever, the value of service learning as a school-university partnership could not be more relevant and urgent in this time of an ongoing pandemic. This value is emphasised within the rich narratives of the teacher-education students who have firsthand immersive experience as volunteer tutors in a community outreach service-learning program in Philippine public schools within far-flung rural communities. In these narratives, the university students illuminated the ways in which service learning becomes a worthwhile opportunity for *teacher training, social responsibility,* and *community (re)building.*

Firstly, service learning opens windows for the teacher-education students to gain a broader perspective in their future career in ways that the community outreach allows them to be immersed in the local ways of teaching that are centred on the actual needs of young people within their communities. Additionally, service learning challenges the student's notions regarding traditional ways of teaching in this difficult time of the pandemic, made worse by the natural disasters that hit the Philippines, and it also affirms the theories that teacher-education students learn in the classroom as they become more critical of what pedagogies to practise for education reform in this time of a "new normal".

Secondly, as the teacher-education students become exposed to the realities of life in a pandemic, their direct experience in delivering service-learning programs helps

them to be sensitive to the actual needs of their immediate communities, especially during difficult times. With this, the teacher-education students are able to (re)frame their plans in future as well as (re)define their sense of purpose as a person within a society (Adarlo & Marquez, 2017). This then allows the students to become more reflective of their purpose in life as they develop a stronger sense of cultural literacy and social consciousness (Oppe, 2001). Most importantly, service learning becomes an avenue for the students to use their classroom learning in (re)connecting to their local community and, during a pandemic, to see valuable human connections during the time of their physical isolation. It is during such a time that the teacher-education students realised that service learning is indeed still possible, if not more relevant and urgent, in the midst of the pandemic—an opportunity seized with optimism in this new future.

Thirdly, service learning develops critical and reflective student leaders who, while still in universities, are already proactive young citizens embracing social responsibility in ways that they contribute concrete actions towards (re)building their community (Berry & Chisholm, 1999). These notions that the teacher-education students have about the value of service learning towards *teacher training, social responsibility,* and *community (re)building* align with the mission of ADNU as a Jesuit university in developing "men and women for and with others" who have the "compassionate commitment to change" their communities by "serving the poor".

A university's commitment to contribute to social transformation however requires "actions towards others, since commitment to serve should be followed through with concrete action" (Adarlo & Marquez, 2017, p. 939). Concrete actions are only realised, as Adarlo and Marquez (2017) claim, when students develop a sense of "empathy and compassion" towards their immediate communities (p. 939). It then becomes imperative for universities, as engines of social transformation, to create experiences for students to care for their immediate communities—experiences which service learning can provide. Thus, in realising their commitment towards social transformation, universities, such as ADNU, must be able to "connect [their] curriculum with the inherent caring and concern young people have for their world" (Kaye, 2010, p. 10). It is in this framework of service learning that its theorists believe that "true" education reform can be achieved.

While the analysis emerging from this project is not generalisable given the small and specific research focus, it provides insight into the value of *local needs assessments* in fostering school-university partnerships within service learning. This value of *local needs assessments* becomes far more relevant and urgent for disaster-prone rural communities in this time of a pandemic. Overall, findings in this study illuminate the way in which *needs assessments* within the local community become imperative not only prior to the delivery of a service-learning program but, most importantly, in the entire duration until the culmination of the program. The value of constantly conducting *local needs assessment* is emphasised within the narratives of the recipients of the service learning—the rural pupils, their parents, and teachers who speak energetically about the critical importance of "home visits" (rather than assuming the needs of the community) as forms of *local needs assessment* before the delivery of any service learning to partner schools, particularly those that are located in rural communities that are prone to typhoons and natural disasters.

Through constant *local needs assessments* that are to be conducted by a few core group organisers, the university and its school partners could determine the extent and degree of "flexibility" that they both need in implementing service-learning programs in times of unforeseen and confronting events without compromising the needs of both (Kaye, 2010, p. 10). Continuous *local needs assessments* within the local community could therefore improve not only the sustainability of the service-learning program itself, but also the "reciprocity" within the school-university partnership, as the program both actualises the mission of a university *and* addresses the expressed local needs of the rural community (Honnet & Poulsen, 1989). Administrators, teachers, and future researchers could focus on the value of *local needs assessments* as an important tool in determining specifically *what service the partner school truly needs, how the service should be delivered,* and *for how long the service program should continue.* A closer look into *local needs assessments* could provide clearer guidelines for universities as they re-examine, redesign, and implement policies on service learning with their partner schools, particularly those delivered (via virtual or traditional modes, or both) within disaster-prone communities in this challenging time of the COVID pandemic.

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Chapter 5
Co-existing Sites of Teacher Education: A University and School Partnership in Glasgow

Moyra Boland and Beth Dickson

Introduction

Scotland has a population of around 5.46 million, the majority of whom live in the central belt, a strip of low-lying land between Glasgow and Edinburgh with more rural areas to the south in the Borders and to the north in the Highland and Islands. The country has a mature educational infrastructure which includes university provision of all initial teacher education as well as Master level provision for continuing teacher education; local authorities which employ teachers and also provide continuing professional development for teachers; a school inspectorate; an independent regulator—known as the General Teaching Council for Scotland (GTCS); teacher trades unions as well as other professional bodies serving the needs of teachers and head teachers. GTCS regulations for pre-service teachers stipulated that each should spend half of their course of study in schools which for the pilot cohort meant three practicums of six weeks at different points in the school year and 18 weeks of study within the university. There is no financial incentive for schools to take students; it is part of the consensus, now expressed in the GTCS standards, that the education of the next generation of teachers is a professional responsibility for the entire profession (GTCS, 2012). The country's size and population distribution mean that it is possible to hold interagency meetings with relative ease because travel to and from major cities takes just over three hours. During the pandemic such meetings were held online. The compact nature of the education and a general sense of collegiality has been commented on both positively but negatively when it tends to the parochial (Menter & Hulme, 2008).

It is the case, therefore, that many aspects of Scottish education have long policy histories. In terms of teacher learning, A Teaching Profession for the twenty-first century (SEED, 2000) recommended that teachers should have 35 h built into their

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work in order to undertake further study. A follow-up report, Review of Initial Teacher Education Stage 2 (2005), recommended that greater collaboration between schools and universities would enhance the school experience of student teachers as it was becoming difficult for universities to place large numbers of students in schools.

At the turn of the millennium, in a process similar to that found in other countries, such as the USA and Australia, Scottish teacher education institutions merged with geographically proximate universities. In 1999, St Andrew's College merged with existing departments of Education and Adult Education in the University of Glasgow to make up a new Faculty of Education. The University of Glasgow belongs to the 'Russell Group', a collection of 24 research-intensive universities (Russell Group, 2021). The University's research norms and its requirements for research activity, although found difficult by transitioning staff (Menter, 2011), became the catalyst of new directions being undertaken in teacher education. The merger heralded the shift from teacher training to teacher education underlining the academic rigour required to become a teacher and the access granted to teacher education as an integral part of a research-intensive university.

As a disciplinary field in its own right, teacher education was flourishing. In 2009, AERA produced Studying Teacher Education (Cochran-smith and Zeichner) which celebrated high-quality US studies to date. Being a member of this research community directly influenced work in Glasgow. The work of the Holmes Group (1986) was discussed including the possibility of using the idea of 'teaching hospitals' as a metaphorical guide to a school-based teacher education. The Group argued that a professional development school, or in this case, a school–university partnership should be characterised by an ability to develop the learning of pre-service and in-service teachers in order to support research and development in the profession. The tradition of professional development schools in the US (Clark, 1999) was considered, and the US accreditor NCATE's report Transforming Teacher Education Through Clinical Practice: A National Strategy to Prepare Effective Teachers (2010) influenced thinking in the direction of a 'clinical' model. From Australia, the work at the University of Melbourne which formed the basis of a study reported in Mclean Davies' et al. (2013) also focused on clinical preparation. These influences had in common the benefits for pre-service teachers of closer relationships between school and university staff which, it was argued, provided problem-solving, target-setting support and personalised support in authentic situations of practice. Consideration was also given to Finnish arrangements of teacher education where teachers were educated to Masters level and teacher educators to doctoral level (Menter et al., 2012).

The contemporary focus on practitioner enquiry as a form of continuing teacher learning (Cochran Smith & Lytle, 2009) was also significant and was given a UK perspective in the work of Vivienne Baumfield, a member of staff at that time (2012), thus adding 'enquiring' teacher to 'reflective' teacher as the nature of the professional under formation in the typology generated through a literature review commissioned to inform Teaching Scotland's Future (Menter et al., 2010).

The Oxford Internship model (established in 1988) suggested that teacher education achieved greater effectiveness when the connections between university and

school were strong, and the sites of pre-service teacher learning were perceived taking place on both sites (Benton, 1990a, b). It was not enough to provide a curriculum for pre-service teacher learning in the university; a curriculum in school was also required along with a broad responsibility across schools, local authorities and universities (Zeichner, 2002). Finnish teacher education placed a high premium on the intellectual challenge of teaching. Programmes of study are structured on the basis of a systematic view of education; all teaching is based on research; learning activities are structured so that pre-service teachers can come to professional decisions justified through problem-solving, and pre-service teachers learn research skills (Toom et al., 2010). One of the benefits of moving from a college of education to a university was a shift in mindset of teacher educators, which manifested itself in a growing understanding of the link between a student teacher's academic engagement with what was already known about learning in teaching as expressed in research and their ability to better support and educate the pupils within their charge.

During 2007, there was a growing research-informed sense within the Faculty of Education at the University of Glasgow, that reform of teacher education was needed. Two key changes characterised this change: the process of recasting teacher education as a Masters qualification and the establishment of a school–university partnership. The shift to Masters level provided the space in which school university links could be explored. Moving teacher education to Masters level qualification was more straightforward to achieve as the change was internal to one institution and its accreditation by the university paved the way for acceptance by the regulator.

However, any change to the pre-service teachers' curriculum in schools required partnership with local authorities and schools as anticipated by Zeichner (2002). In 2007, the Scottish Government funded the pilot of the partnership model of teacher education at the University of Glasgow. It was called the Glasgow West Teacher Education Initiative and comprised a steering group which oversaw the pilot in primary and two secondary schools and eleven primary schools and made provision for an independent evaluation of the pilot. The steering group drew its members from university, schools and the local authority. In the initial phase, the university, local authority and schools were self-selecting because of geographical proximity to the university who mooted the idea in the first place with the local authority. Once agreement was reached at this level, schools were selected by the local authority on the basis of their capacity to undertake this work. This membership demonstrates the complexity of teacher education and the number of stakeholders who have to be involved if decisions which may lead to cultural change are to be implemented. As Feiman-Nemser (2001) put it, "No single institution has the expertise, authority or financial resources to create the necessary structures and learning opportunities" (p. 1037).

The local authority was interested in improving the quality of pre-service teachers and ways in which the partnership could embed lifelong professional learning within the school context. Schools were focussed on ways in which their staff were supported and educated in the role of mentoring and assessing student teachers. Universities were keen to improve the consistency of student experience when pre-service teachers were working in schools and also to embed an interdependent partnership

between schools and universities around the complexity of becoming a teacher. All stakeholders could see a benefit to themselves if they collaborated. Each institution recruited or selected staff through their own procedures. University tutors were recruited through expressions of interest and interviews. Head teachers selected staff to act as tutors who had a previous interest in teacher learning or supporting students. Students were made aware of the new support in schools, and those who were randomly assigned to schools in the geographical area were asked if they wanted to be part of the project. No student refused. The reform was shaped on the principles of cooperation and equity between schools and universities. The role of the local authority was significant in the partnership as it had oversight of the schools with which the university worked and authority to make changes needed for the pilot. Funding from the pilot was allocated to support the release of teachers from school to attend collegiate meetings, and a local authority officer to planning workshops in the university where the content and scope of a curriculum for the practicum was co-constructed. The aims of the pilot were.

- To co-construct and implement a new collaborative school (and community)-based partnership approach to supporting the professional learning and development of student teachers, teachers and tutors;
- To establish closer communication, shared understanding and relationships;
- To build capacity in the profession to engage with effective practice-based and evidence-informed models of professional learning and development and support the development of professional learning communities across the continuum of teacher education;
- To identify and evaluate the particular benefits for partnership, for learning and professional development and ITE/CPD policy which emerge from an integrated and structured approach to student placement and support;
- To identify and evaluate the benefits of the co-construction, co-learning and co-inquiry approach from the point of view of the professional and scholarly development of the tutors and teachers, as well as from the point of view of student learning;
- To identify the methods by which scholarly output and learning opportunities (for teachers, tutors and other education partners) about teacher education policy and practice can be increased, and with what impact.

(Menter et al. 2012).

To meet the first of these aims, the student teacher, the School Experience Tutor (SET) and the class teacher worked collaboratively for the duration of the practicum using formative assessment, seminars, learning rounds and joint summative assessments. The curriculum for the practicum comprised both classroom experience, intellectual engagement with appropriate literature, peer and staff observations, learning conversations and a holistic assessment of student performance over the full 18 weeks school practicum. The School Experience curriculum honoured the expertise of school teachers and university lecturers as academic knowledge was considered one appropriate knowledge alongside professional knowledge which was also necessary and appropriate (Zeichner, 2010). School teachers were viewed as

experts in classroom pedagogy while university lecturers were seen as having access to contemporary research on issues relating to classroom practice.

While on practicum, pre-service teachers had a single identified School Experience tutor from the university. This tutor accompanied students into schools during their practicum. Students were part of a learning community made up of primary and secondary students, school and university staff. Significant time was given to the process of reflecting on the role and work of the teacher in the school during the practicum. This happened in three ways. Firstly, all students attended weekly seminars on topics of high relevance for pre-service teachers, such as behaviour management, planning, communication and reflection. A tutor with a specialism in that area would work with the pre-service teachers on that issue. Academic readings used in the seminars formed the frame through which students reflected on their classroom practice. Evaluations of classroom lessons written by students had to demonstrate engagement with academic reading. Secondly, learning rounds (where students observed their peers' teaching and used the observations as a context for non-judgmental peer discussion facilitated by school and university staff). Thirdly, the final assessment of the students was a joint report agreed by both school and university staff. This journey to becoming a teacher depended heavily on frequent formative assessment from school and university staff and was intended to eradicate the 'crit' lesson when a student's assessment would depend on a 45-min observation of the student teaching and a post-lesson discussion. This single observation and discussion were the only basis on which a student teacher was evaluated to be satisfactory or not. In the partnership model, no student was assessed on a single 'crit' lesson, nor by a representative of only one institution, but on the full period of their school experience by representatives of both institutions so the student did not receive mixed messages where one partner 'failed' the student and the other thought they deserved a pass.

These then were the three pedagogical pillars of the partnership model. Teaching Scotland's Future was published in January 2011. The reform of teacher education within the University of Glasgow anticipated the report and had already embedded many of the principles and final recommendations within its reforms. TSF commented on both strands of previous reviews. There was focus on initial and career-long teacher learning as well as a desire to mine the potential of school–university links as a means by which career-long learning could be achieved. Partly, this was envisioned in so-called hub schools, an idea which had similarities to European 'normal' schools. No structure for such partnerships was mandated and the idea of a 'hub' school was rejected by the Scottish teaching profession through its various agencies because of a fear of it leading to a two-tier profession (Menter & Hulme, 2011).

Changes in Views of Knowledge

The partnership model radically reformed the recognised areas of expertise within university and schools. University-based teacher educators took the role of the academic expert in learning and teaching applicable across all age ranges within school. School-based teacher educators took the role of curricular experts with the specific classroom in which the pre-service teacher worked. Although areas of expertise could exist across teacher educators based in both university and school, this acknowledgement of the expertise created parity and partnership between university and school, rather than the previous view in which university tutors were perceived to embody arcane knowledge of little relevance to the classroom and were distant from the site of practice, thus intending to reduce the attitudes to different types of knowledge (Stoddart, 1993). School teachers' knowledge was affirmed as being crucial to the pedagogical conversation with pre-service teachers and university-based staff.

Changes in Site and Nature of Teacher Education Roles

The partnership model reconsidered the role of the classroom teacher who hosts the pre-service teacher and the university-based tutor who supports the student during the practicum. The establishment of a working relationship between university and school staff was the foundation on which the partnership rested. University staff led seminars in school buildings, hosted learning rounds and jointly assessed students with teachers. The presence of SETs on site meant that they were familiar figures in schools who could be contacted with everyday questions, thus inhabiting the role described in teacher education studies as the 'boundary spanner'; even though that term can have various detailed out workings (Burns & Baker, 2016).

The evaluation of the pilot was based on four elements. The narrative account was based on minutes of meetings, professional journals and researcher observations. This provided a coherent account of a wide-ranging series of actions with numerous actors. Pre- and post-project surveys were conducted along with interviews and focus groups with key actors who included students, schoolteachers, school managers, local authority staff, university staff (programme leaders, etc.). The evaluation found that school-based seminars and learning rounds had increased the pre-service teachers' willingness to undertake academic reading and relate it to practice. There also seemed to be more pedagogical work done with pre-service teachers by university staff rather than assessment work which characterised the previous model.

Although not one of its final themes, the evaluation did find that 'the logistics of the scheme were complex' (Menter et al., 2012, p.72) and the report noted that communication was crucial to any ongoing work. The pilot found that although there was an enhanced professional experience for pre-service teachers, the goal of transforming schools into learning communities for all staff had not occurred, an omission again thought to be related to the complexity, newness and logistical load

of the project. The changes required to achieve such a goal would have required sustained leadership among all institutions and would have involved workload and contract negotiations with teaching unions. The evaluation found that the project had not changed some deeply embedded cultural norms—some participants still talked about 'crit lessons' although this form of assessment had been explicitly rejected by the discussions. There was an overall enthusiasm for the work which had been undertaken and the way in which it had been done.

The partnership model evolved after the publication of TSF to which the Scottish Government responded with Continuing to Build Excellence in Teaching (2011). The document accepted all the recommendations proposed by TSF. The SG established the TSF National Partnership Group; their remit was to support the development and implementation of TSF which required "new and strengthened models of partnership" between universities, local authorities, schools, teachers and national bodies (Donaldson, 2011). The group was to ensure the partnership development not only strengthened initial teacher education but the full spectrum of career-long teacher education. Of particular importance is the consensus across the professional bodies (unions, regulator, inspectorate and local authorities) that the recommendations for teacher education were not only sensible and visionary but necessary and would be, in general, supported.

SG strongly supported the move to Masters level qualification for teachers within Scotland, and this funding continued to support the partnership model as the University of Glasgow ensured that all its teacher education students could graduate with a Masters degree if they chose. The Scottish Higher Education Funding Council in partnership with universities created the context and circumstances in which teacher education qualifications at the initial stage would be Masters level. University fees for teacher education at undergraduate level and at postgraduate level had always been funded by the Scottish Government as teaching was seen as a national priority. From 2011 onwards, SG fully funded Masters level qualifications for newly qualified teachers. The school–university partnership was thus indirectly funded as the programme which it supported at the University of Glasgow used the partnership model.

As changes to the level of qualification were taking place, the partnership model grew and developed, becoming the only model of teacher education in the University of Glasgow. Staff responded to the findings of the evaluation of the pilot in three key ways. Firstly, the curriculum of teacher education in the university and in schools continued to develop. No longer was the university curriculum created by university staff, it was co-constructed between school staff, university staff and local authority staff. The content of the curriculum was rooted in theoretical perspectives on teaching, in classroom practice in order to form the dispositions in pre-service teachers that they needed to become lifelong learners and researchers into their practice. Using practitioner enquiry as a pedagogy aimed to move the profession closer to the aspirations of Stenhouse where teachers are able to become researchers of their own practice and developers of their own curriculum (Stenhouse, 1975).

Secondly, the School of Education invested in the recruitment and training of school experience tutors by the university. These tutors had a specific and sophisticated set of skills—an in-depth understanding of learning and teaching within a classroom context; they were educated to Masters level; thus, they had a strong grounding in education as a discipline; and a career history which demonstrated leadership within Scottish schools.

Thirdly, the changes were being explicitly and systematically embedded in the minds and practice of university and school-based teacher educators. The slow, yet steady, evolution of the model gradually ensured that the assessment of a pre-service teacher was no longer predicated on a 45-min snapshot in a classroom. It was based on the entire period of the practicum and included constant conversation with the host teacher; feedback from the school experience tutor; engagement with peers and written reflections framed by a theoretical lens as pre-service teachers interacted with what was known about learning and teaching in order to develop their own classroom reflective classroom practice.

New Challenge

In 2014, Ellis and Sosu wrote an influential academic article which demonstrated that an attainment gap existed and had existed for many years in Scotland between children who were born in more affluent areas and their fellow citizens who were not. According to the Scottish Government, the Scottish Index of Multiple Deprivation (SIMD) is the national measure of deprivation. It is a relative measure of deprivation across seven domains: income, employment, education, health, access to services, crime and housing. Children who live in SIMD 1 and 2 live in areas which are the most deprived; the lower the ranking, the greater the deprivation. In order to address this stubborn difficulty, the Scottish Government launched the Scottish Attainment Challenge (2015) which aimed to ensure equity for all and improve achievement in literacy, numeracy and health and well-being, the overarching themes of the Scottish curriculum. The Scottish Council of Deans of Education (SCDE) was invited to develop a research agenda in teacher education to provide support for the Attainment Challenge. In early 2018, funding was secured from the Scottish Government for this research programme.

One of the research questions set by SCDE was 'What relevant inputs are students and early career teachers given in their Teacher Education curriculum to support effective work with pupils from SIMD 1 to 40 backgrounds?' The University of Glasgow was able to use a key component of the partnership model—the practitioner enquiry—to explore this research question (Doherty & Boland, 2020). The University of Glasgow research reflected on whether the sharing of practitioner enquiries undertaken in disadvantaged communities could contribute to the professional growth of teachers. The study followed two cohorts through their final stage of their teacher education programme. Cohort A participants provided a copy of their practitioner

enquiry assignment and were interviewed by the researchers twice. The first interview focused on the interviewee's background, their practicum context, the nature of their professional enquiry, its origins and the learning they planned to take into future contexts. The second interview conducted eight months later when the participants were in their first year of teaching explored how they were faring in their first teaching post, the nature of their new contexts, what, if any, aspects of their professional enquiry were they able to transfer to this context and would they have done differently in hindsight on the practicum on which they were first interviewed. Cohort A were asked if they would share their practitioner enquiries with their peers on Cohort A and B. Due to COVID-19, cohort B had an interrupted placement. The unprecedented circumstances impacted negatively on the recruitment of Cohort B, and the project had to be suspended. The analysis of the interview data and the professional enquiry documents was context-driven with qualitative analysis reflecting on participants' meaning and theoretical vocabulary. In addition, the analysis sought to identify dispositions of teachers highlighted when describing the variety of contexts and ways in which participants accounted for consideration of the context in relation to their professional thinking.

Theoretically, the research was based on Bernstein's theory of knowledge which enabled a framing of the knowledge generated during practitioner enquiry. Commonly treated with scepticism by professional researchers, this theoretical framework enabled the finding that although the knowledge generated was not generalisable, it was important in developing teacher and pupil learning among children in SIMD 1 and 2 where some of Cohort A was working. By posing a problem or question, pre-service teachers critically reviewed their own practice in the social conditions of the school context. This generated knowledge which pre-service teachers used to enhance their own practice in the classroom which in turn enhanced their professional practice at a critically important stage of their development as a teacher. It was also found that participants were able to take their knowledge into a new teaching context where they were able to re-contextualise it, using it as a perspective from which to understand and adapt practice. Teachers' context sensitivity to the specificity of each setting was important in developing their professional practice.

The research found that practitioner enquiry enabled pre-service teachers to support the learning of the children identified by Scottish Attainment Challenge. Participants who embarked upon a practitioner enquiry in a school serving a community of high deprivation produced meaningful work that demonstrated understanding and the nuanced complexity of the community they served. Pre-service teachers acknowledged the lower levels of literacy and numeracy in their classes and, in frank evaluations of their lessons, noted that using active pedagogies enabled pupil learning, did go on to highlight the challenges of transitioning from active learning to desk-based pedagogies.

These pre-service students were exposed to the challenges, practices and expectations which the Scottish Attainment Challenge was seeking to identify in order to break the link between deprivation and attainment. By sharing enquiries and

experiences with each other, pre-service teachers who were not placed in disadvantaged communities had a vicarious experience of serving communities of deprivation through reading the enquiries of their peers and discussing the emergent points. Wyse et al. (2020) refer to the benefit of both academic 'research' and practitioner 'enquiry', and the partnership model was able to host both these forms of enquiry in order to respond to a current policy initiative, one of the three hallmarks of a school–university partnership.

In summary, the school–university partnership demonstrated the intense complexity of learning and teaching within a classroom. The structure of the partnership which required high-level strategic collaboration among senior managers across institutions which each had their own goals and own ways of working as well as comprehensive work from individuals within these organisations on roles, responsibilities and the intense logistical detail of practicum organisation, is only one expression of this complexity. Yet the partnership ideal present in academic literature had to be shared by all participants irrespective of role or institution. The partnership model shone new light on the potential of reformed relationships between university and school-based teacher educators for the benefit of pre-service teachers. In addition to reflective practice, the use of practitioner enquiry as a pedagogy occurring on the site of practice enabled pre-service teachers to develop an enquiring disposition at a period where their professional identity was being formed (Doherty & Boland, 2020). Because of the complexity and scope of the partnership, the cultural changes entailed take time to become embedded with both sites of teacher learning. The focus of funding on individual teachers will take time to reach a tipping point where it is recognised that all teachers should have the opportunity to learn and develop their professionalism in the context of their own classrooms and schools.

Reflections

In Scotland, as in the rest of the world, the policy landscape is influenced by the political agenda which within democratic countries can change every four to five years. By contrast, the partnership model of teacher education, rooted in research and professional experience, was not designed using contemporary policy only, but was designed over a sustained period of time with a clear focus on how best to educate pre-service teachers. Bearing this in mind, the model strived to 'policy proof' itself ensuring sustainability over an extended period of time. Some researchers have found that the idea of 'partnership' was left dangling when the policy gaze (and funding) shifted to the National Improvement Framework (Bain et al., 2016) and subsequently to the poverty-related attainment gap. However, it can be argued as Bain and colleagues do (2016), that because of the time and resource given to partnership work in Scotland, it had become a crucial space in which teacher educators could develop new thinking about classroom improvement in order to provide a rich response to policy goals.

Structure

The structure of the partnership was complex and dependent on sophisticated communication, strong professional relationships and the need for robust bureaucratic structures to enable all stakeholders to understand and carry out their roles and responsibilities (Dickson, 2020). The challenge of creating and enabling bureaucratic structures was not the sole responsibility of the university. At the strategic level and at the operational level, it involved national bodies such as the Scottish Government and the General Teaching Council of Scotland as well as local authorities and schools. At times there was tension when the bureaucratic systems seemed to dictate the experience, yet the co-creators of the partnership worked exceptionally hard to prevent this from happening by ensuring the vision of the model was the key driver for the bureaucratic structure rather than the other way round.

Tensions

Others have reported tensions between partners (Breault & Adair Breault, 2012) when schools and universities are unable to make common cause in order to create the optimum conditions for educating teachers (Breault, 2013). The partnership model discussed here worked to reduce suspicion among partners because of the deliberate co-construction and the language of inclusion and equity used between partners. Any ideas around intellectual superiority of academic knowledge were replaced by the values of trust and empathy which were explicit in the day-to-day interactions, the written documentation and meetings of staff. Underlying this culture of trust was the fact that no financial gain was made by schools if they accepted students as in Scotland every school and every classroom is notionally available to host students.

Values

This shared culture of educating the next generation of teachers is further strengthened in the GTCS Standards for Scottish teachers where it is expressly articulated that the education of the next generation of teachers is the responsibility of all teachers (GTCS, 2012). The Standards articulate the professional values and personal commitments expected of teachers and teacher educators, and trust, integrity, and respect are core values. These values provided the framework and foundation of this partnership model; they were the values all pre-service teachers were expected to embody (thus in constant use by staff when assessing pre-service teacher development) and the values all stakeholders exhibited throughout the complex and sometimes challenging process of co-construction.

Depth was a discernible component of the partnership model (Breault, 2013). One of the biggest threats to achieving depth is the constantly changing landscape within schools and universities: changes in personnel, in strategy and in policy. In addition, changes in government policy add another layer of potential contextual change. The strategic and operational relationships on which the partnership rested, arguably, did change the views of pre-service teacher assessment in the schools where the model operated. The shared reporting system articulated a pre-service teacher's development as a journey over their programme in school and university. It was not solely dependent on either the school's vision or the university's vision.

Claiming ownership comes from an investment of time, energy and shared vision. The process of forming the partnership created the conditions for ownership. That process took place over a sustained period of time; it was complex and afforded all stakeholders the opportunity to contribute to its construction ensuring that the all-important sense of shared ownership was embedded within the model. The sense of shared ownership enabled all stakeholders to invest in the model because all stakeholders benefited from the formation of confident beginning teachers. An example of the ownership and professional commitment to the model can be seen in practice when a struggling pre-service student is identified rapidly, and a support plan, created by university and school staff, is put in place.

Of the Holmes Group's three-aspect description, the partnership model demonstrated development of initial teachers' experience and a space for research and development. However, the missing area of the work is the inclusion of in-service teachers working on enquiry in schools. Models from New Zealand and Wales have demonstrated how this could be achieved (Furlong et al., 2021; Timperley, 2011). Given the capacity of dedicated resources in schools to generate means of dealing with stubborn problems, there is much to be gained from an ongoing conversation around the evolution of the model.

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Chapter 6
School–University Partnerships in Vietnam: Insights, Reflections, and Recommendations

Dong Nguyen, Hong-Van Thi Dinh, and Nam-Phuong Nguyen

Introduction

Schools and universities have a long history of partnerships for a variety of educational purposes. School–university partnerships are advocated as "the most frequently recommended approaches to educational reform" (Dyson, 1999, p. 411). A school–university partnership tends to be defined as a "planned effort to establish a formal, mutually beneficial inter-institutional relationship" (Goodlad, 1991, p. 59). The overarching aim for most school–university partnerships is to minimise the gap between theory and practice in teacher education (Walsh & Backe, 2013; Walsh et al., 2000). School–university partnerships are reflected in various activities (e.g. teacher education and educational research) between stakeholders from both schools and universities on a collaborative basis (Carriuolo, 1991; Cochran-Smith & Lytle, 1998; McLaughlin & Black-Hawkins, 2007).

The past decades have witnessed an increase in school–university partnerships, alongside the process of massification of higher education in many countries. This increase has been documented in the publications on school–university partnerships in several specific contexts, for example, Australia (Green et al., 2020) and the UK (Handscomb et al., 2014). In response to this burgeoning of partnerships, a good

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range of studies on these partnerships within and across countries are needed to inform the stakeholders (i.e. policy makers, schools, and universities) of the strategies to improve the quality and effectiveness of partnerships and to address inherent challenges and tensions in initiating, implementing, and sustaining partnerships. This range of studies should include general analyses of policy and practice to provide a landscape of current partnership forms and case-based research on specific partnerships to enable more specific understanding.

Our local knowledge in Vietnam suggests an emergence of various partnerships between universities and schools in the past two decades, arguably reflecting the expansion, massification, and diversification of the country's higher education system (Mok, 2008; Phan & Doan, 2020; see also World Bank, 2020). The study, which this chapter is based on, was conducted to provide a broad understanding of school–university partnership forms documented in the system-level policies of Vietnam, and those forms enacted at the institutional level. This study complements case-based research to enrich insights into school–university partnerships in Vietnam. The current chapter aims to address the following two research questions:

- What forms of school–university partnerships are currently documented in Vietnam's system-level policy?
- What forms of school–university partnerships are implemented at the institutional level?

Addressing these questions is significant in evidencing forms of school–university partnerships in policy and practice in Vietnam. The chapter will also discuss the issues and challenges associated with these partnership forms and accordingly make recommendations to capitalise on the expertise and resources of schools and universities to achieve mutual goals. The next section presents an overview of the aims, characteristics, and challenges of school–university partnerships, drawn from the extant international literature.

School–University Partnership: Aims, Characteristics, and Challenges

A school–university partnership in teacher education aims to address a gap between pre-service teacher preparation and school realities. A school–university divide was considered as an original problem in teacher education (Krichevsky, 2021; Yan & He, 2021). This disconnection is exemplified in misalignments between coursework in pre-service teacher education programmes and the fieldwork in school settings, and between professional knowledge and technical skills required to practise teaching in real classrooms (Grossman, 2010; Krichevsky, 2021). There have been concerns about pre-service teachers' inadequate preparation for complex processes and practices such as classroom management, building professional relationships, lesson plan,

delivery of teaching, and development of a professional identity (Farrell, 2012; Yan & He, 2021).

School–university partnerships can be school-based or university-based. The *school-based partnership* typically refers to a school–university collaboration in the design and delivery of field-based education (e.g. Herbert & Hobbs, 2018; Xu, 2009). This field-based education includes co-delivering practicum learning activities in schools for pre-service teachers. A *university-based partnership* involves secondment of practising teachers as teacher educators in teacher education programmes in a university (e.g. Bullough et al., 2004). Research (e.g. Furlong et al., 2000; Kruger et al., 2009; Ure et al., 2009) has suggested three key characteristics of successful school–university partnerships. Firstly, an effective school–university partnership is based on mutual trust between stakeholders (Kruger et al. 2009; Walsh & Backe, 2013). This mutual trust is built on a shared understanding of what constitutes effective teaching (Grudnoff & Tuck, 2003), of their respective roles (Ure et al., 2009), and of the expected positive outcomes of the partnership (Kruger et al., 2009). Secondly, effective school–university partnerships tend to be "collaborative", rather than be of merely "complementary" nature (Furlong et al., 2000). A collaborative partnership has a higher degree of positive interdependence among members than a complementary partnership. The members (i.e. teacher educators, pre-service teachers, and in-service teachers) of a collaborative partnership work together as a team to reach a common professional goal (Furlong et al., 2000). They are jointly involved in the decision-making process and share accountability, which goes beyond an emphasis on sharing resources, expertise, and facilities (Smith & Lynch, 2002) in a complementary partnership. Thirdly, an effective school–university partnership is underpinned by mutual recognition of members' efforts and contributions (Kruger et al., 2009). These three characteristics highlight the significance of developing trusting relationships, providing role clarity, promoting a sense of ownership, and sharing accountability, to enable success of school–university partnerships (McLaughlin & Black-Hawkins, 2004).

The literature (e.g. Darling-Hammond, 2014; Gutierrez & Nailer, 2020; Miller, 2001) has highlighted a number of challenges in establishing, sustaining, and levelling up a strong school–university partnership. For example, the difference in institutional priorities and cultures between schools and universities is a challenge to this professional partnership (Darling-Hammond, 2014; Ledoux & McHenry, 2008; McIntyre, 2005; Miller, 2001). While the priority of a school tends to be primarily teaching, many universities that host teacher education programmes focus their vision on research, teaching, and service. Schoolteachers and university lecturers may have different, and to some extent, conflicting beliefs in effective teaching and approaches to teacher education. Another major challenge to school–university partnerships is time constraints (Bickel & Hattrup, 1995; Gutierrez & Nailer, 2020; Ledoux & McHenry, 2008). A partnership requires substantial time from all members to support pre-service teachers' learning (Ledoux & McHenry, 2008). A greater investment in time for this partnership entails a reduction in the time for other competing tasks within the workload of university lecturers and teachers.

Methods

This book chapter draws on an analysis of policy documents and reflections on the activities of school–university partnerships of a major university in the central region of Vietnam. The analysis of relevant policies at the system/national level enabled us to have an overview as to what extent school–university partnerships are reflected in these documents. The reflections provided an idea of the forms and implementation of school–university partnerships at the university level. The first author of this chapter is a bilingual speaker of English and Vietnamese. The second and third authors are university lecturers of pre-service teacher education programmes from two major universities in education, located in the northern and central regions of Vietnam. The co-authors have participated in delivering school–university partnerships in pre-service teacher education of their respective universities.

Analysis of Policy Documents

We conducted a search of policy documents on the Vietnam Government's websites, Google, and Google Scholar. This practice identified a range of 40 documents that were publically available. These documents outline current laws, circulars, decisions, and official dispatches issued by the Vietnamese Ministry of Education and Training (MOET) in the past two decades. They were included for review because their content touches upon, of varying degrees of depth and explicitness, aspects relevant to school–university partnerships. These documents discuss the issues concerning general education in Vietnam, compulsory education, higher education, and teacher education. We categorically arranged these documents into groups of (1) graduate attributes of pre-service teacher education programmes, (2) preparation and development of teachers and school leaders, (3) research in education, and (4) community education.

Our analytical process of policy documents involved extracting all details relevant to collaborations between schools and higher institutes of education in an Excel file. We took detailed notes to ensure an appropriate understanding of contexts of extracted details. All of these details were noted in the original language—Vietnamese.

Analysis of these details uncovered four prominent themes that discuss policies on school–university partnerships: pre-service teacher education, continuing professional development, research, and community education. These themes are developed and presented in English in the subsequent parts of this chapter. The third author took a primary responsibility in searching for policy documents. Both the first and the third authors analysed the data from the final list of policy documents.

Analysis of Secondary Data from a University of Education

The second sources of data were obtained from Hue University of Education, Hue University (HUEdu). HUEdu is a major provider of teacher education in the central region of Vietnam. Founded in 1957, HUEdu is home to 12 academic departments, 29 undergraduate programmes, and 11 postgraduate programmes (HUEdu, 2021a). In the academic year of 2020–2021, HUEdu had a population of 2,992 full-time undergraduate students, 7000 part-time undergraduate students, 928 postgraduate students, and 57 doctoral students (HUEdu, 2021b).

The second author was a full-time lecturer at HUEdu at the time of this research. The author collected secondary data relevant to the collaborative activities of HUEdu and schools. These data included information on the university's website, curricula of study programmes, and accessible reports. The second author collected all secondary data from HUEdu. The first and second authors subsequently synthesised and analysed relevant details from these sources of data in Vietnamese. We presented three themes in English to highlight HUEdu's partnership areas and activities with schools: practicum-based learning, continuing professional development, and educational research. These themes are discussed in the next parts of this chapter.

Policy on School–University Partnerships in Vietnamese Higher Education

This section outlines four forms of school–university partnerships based on an analysis of the relevant policy documents.

Partnership in Pre-service Teacher Education

School–university partnerships in Vietnamese higher education are reflected in curriculum development and teaching practicums associated with pre-service teacher education.

Curriculum development. MOET requires pre-service education programmes to consider the practice and working environments in schools (MOET, 2018b, Chapter 3, Article 7, Sections 3a and 3b). This process of pre-service teacher education is expected to elicit feedback from stakeholders including academics, teachers, and employers [schools] (Section 3e). The "regular evaluation and updates of course content, modules, and teaching methods should be based on innovations in the specialised field and requirements of employers [schools]" (Section 3i).

Schools play a critical role in providing feedback on the quality of the teaching workforce and needs of pre-service teachers. An effective school–university partnership in Vietnamese higher education is central to the process of reviewing and

improving the quality of pre-service teacher education programmes. The need for this partnership is implied in the guidance of evaluation of pre-service teacher education programmes issued by Department of Educational Testing and Accreditation (2016).

Practicum. The mandate for incorporating teaching practicums into pre-service teacher education programmes is communicated in the policy documents of MOET (e.g. MOET, 2021, Article 4, Section 1a). A teaching practicum is a compulsory element and detailed in MOET's frameworks for pre-service teacher education programmes (MOET, 2003, Article 4, Section 1). In four-year programmes, the universities are required to organise teaching practicums for their teacher candidates in the second and third years. The responsibilities of universities as providers of pre-service teacher education programmes and of schools are outlined in Article 6 (MOET, 2003). More specifically, the providers of pre-service teacher education programmes are held responsible for "organising, planning, and monitoring the processes and activities of teaching practicum" (MOET, 2003, Article 6). The schools or educational organisations, selected as sites for teaching practicums, are required to support implementation of teaching practicum activities in their establishment (MOET, 2003, Article 6). These processes and activities of teaching practicums are required to be "periodically reviewed, evaluated, and improved" (MOET, 2020b, Article 13, Section 3).

The school–university partnership for teaching practicums is featured in evaluation of pre-service teachers' performance in four aspects, namely (1) subject-specific teaching, (2) classroom management as a homeroom teacher, (3) a report of their practicum experience, and (4) teamwork and citizenship/discipline (MOET, 2003, Article 14 and Article 17). This policy document (MOET, 2003) specifies a mentor of pre-service teachers participates in the practicum site evaluation aspect (1), (2), and (3), while a university lecturer in charge of that group of pre-service teachers plays a supporting or moderation role and records evidence of practicum work. Both the university teacher and teacher mentor play a moderation role in the peer-evaluation of aspect (4).

Partnership in Continuing Professional Development

School–university partnerships aim to support professional development for in-service teachers in schools. This expectation is outlined in a number of MOET policy documents (e.g. MOET, 2018a, 2019a, 2019b). These documents state the significance for allocating high quality human resources for teacher professional development and learning, through explicit statements on criteria for selecting university lecturers in training school leaders and core/senior schoolteachers. These selection criteria prioritise experience in curriculum and textbook development, teacher education, and in-depth understanding of contemporary school curriculum (MOET, 2019a).

MOET has requirements and guidelines for continuing professional development for school teachers (MOET, 2018a, 20/2018/TT-BGDĐT; MOET, 2019b).

These documents highlight a need for collaboration between university teachers and core/senior school teachers in delivering professional development programmes for school teachers from January 2020 until the present (). For example, MOET (2019b, Article 9, Section 1) says: "Facilitators/Speakers of continuing professional development events are educators from providers of professional development, experts, educational managers, and core teachers". Universities of Education are the key providers of professional development for teachers and school leaders in Vietnam (MOET, 2019b). Programmes and activities for professional development are jointly designed, planned, and implemented by relevant organisations, such as universities, the bureaus of education at the provincial level, and schools.

Partnership in Research

Undertaking research is compulsory within university lecturers' professional remits (MOET, 2020i). The MOET's documents specify the activities for research for lecturers. These activities include leading and participating in research projects, evaluation of projects, conferences and seminars, international collaborations, and evaluating students' research projects (MOET, 2020i, Articles 5 and 6). There is no formal requirement for university lecturers to do research in partnership with schools specified in these policy documents.

Research is an optional activity for schoolteachers and leaders in Vietnam. The guidelines on professional standards for schoolteachers (MOET, 2018a, 2020g, 2020h) emphasise teachers' roles in teaching, duty care, and partnerships with stakeholders within and beyond schools in their local area. MOET encourages individual teachers, teams, and schools to propose and implement initiatives on the voluntary basis to enhance learning and teaching quality (MOET, 2020f, Article 3, Section 1). These successful initiatives are instrumentally rewarded (MOET, 2020f, Article 5, Section 1d). In summary, school–university partnership in research is not a compulsory activity mentioned in MOET's policy documents.

Partnership in Community Education

In terms of partnership in community education, MOET (2017, Chapter 1, Article 2) outlines the roles of parties in joint training at the higher education level. This partnership comprises three parties: (1) lead educational institution, (2) coordination institution, and (3) support institution. Lead education institutions (1) organise the processes of enrolment, course delivery, assessment of learning outcomes, and certification. Coordination institutions (2) directly participate in joint training that involves co-delivery of required courses and administration. These coordination institutions could be local universities and colleges in the area. Support institutions (3) are the local schools that provide physical structures, such as study sites and teaching and

learning facilities. This tripartite partnership aims to support development of human resources for the socio-economic advancement of local areas.

School–University Partnership in a Vietnamese University

This section presents partnership activities between HUEdu and schools, grouped into three main categories as follows.

Practicum-Based Learning

In alignment with MOET's policies, HUEdu incorporates practicum-based learning into its curriculum for pre-service teacher education. This practicum-based learning is implemented in formal partnership with the schools mainly in Hue and the central region of Vietnam. The pre-service teacher education programme normally lasts four years on a full-time basis. The practicum-based learning has two stages: practicum 1 ('kiến tập sư phạm' in Vietnamese) and practicum 2 ('thực tập sư phạm').

Practicum 1 occurs in the third year of the programme and normally involves 90 h within four weeks for pre-service teachers' practicum-based learning in schools. During their first practicum, groups of pre-service teachers are allocated mentors who could be schoolteachers and/or university lecturers. These mentors support pre-service teachers with building competences (defined as knowledge, skills, and qualities) in subject teaching, classroom management, teacher teamwork, and administrative work. Pre-service teachers have opportunities to do classroom observation and to participate in a number of activities in schools (HUEdu, 2017, pp. 6–8).

Practicum 2 is conducted in the final year of the pre-service teacher education programme and lasts 7 weeks. Prior to practicum 2, HUEdu normally invites representatives from partner schools to present an overview of their schools with their pre-service teachers. During Practicum 2, pre-service teachers are grouped into 2–3 members and mentored by schoolteachers. These mentors guide pre-service teachers with lesson plans, subject teaching, classroom management, assessment, and other professional practices. The mentors are requested to observe their mentees' teaching and offer feedback. Some departments of HUEdu require their lecturers to observe and give feedback on their pre-service teachers' classroom teaching.

In addition to the two aforementioned formalised partnerships, some departments in HUEdu established collaborations with schools to support their pre-service teachers with opportunities for field trips. These collaborations tend to be temporary and based on the professional relationships between the departments, or their academic members and schools. These field trips are an optional element to promote experiential learning and are designed to support pre-service teachers' preparation for formal practicums. These field trips are organised as a part of learning and teaching in

the courses of psychology and counselling in schools and HUEdu's early childhood education.

These partnerships promise benefits for pre-service teachers' professional learning and student learning. Schools, as study sites, provide opportunities for pre-service teachers' observation and practice. For reciprocity, the lecturers of HUEdu share expertise with the in-service teachers of these schools and act as advisors to professional projects in schools. Several departments of HUEdu have some limited remuneration for these schools. However, there are challenges in sustaining these partnerships as a result of weak resources, inclusive of insufficient funding.

Continuing Professional Development

In recent years, schools have established collaborations with HUEdu to support teacher professional development and implementation of educational reforms. Some primary schools invited HUEdu's lecturers to coach their teachers and school leaders on implementation of the national new curriculum (2018). HUEdu lecturers conducted a series of seminars and workshops to support these schools. These professional events included an introduction to new textbooks issued in 2018, promotion of experiential learning in primary schools, teaching reading in primary schools, emotional management for teachers, and counselling for students.

Educational Research

Research projects in HUEdu tend to be linked with school settings. The implementation of these research projects requires collaborations with schools. These schools supported research groups to recruit participants (i.e. teachers, school leaders, students, and parents) for their projects. The participants involved in the activities of data collection, such as survey, interviews, group discussions and implementation of interventions. HUEdu invited representatives from schools to participate and share their professional experience in seminars and conferences. Two examples are presented as follows.

HUEdu, in collaboration with three primary schools in Hue province, conducted a series of activities to support an initiative of promoting "children's reading at home" and professional practicum for pre-service teachers of primary education programmes, within a community-based learning project. These activities involved participation of many teachers, school leaders, and students. This project established a fan page called "Zở Zở" that has drawn attention from many primary school students in Hue and other provinces. The project team has conducted sessions of professional sharing with primary schools.

A project on developing indicators to measure citizens' satisfaction with educational services involves participation and collaborations of ten schools from the preschool level to college level in Hue and Quang Tri provinces. Within this project, the research team from HUEdu organised two national conferences. Attendants from five schools in the central and southern regions of Vietnam made presentations in these conferences.

Discussion of Insights and Issues

The analyses of policy documents and partnership activities from HUEdu highlight some insights and issues for reflection and discussion. Our analyses of the policy documents uncover four key forms of school–university partnerships: pre-service teacher education, in-service teacher education, research, and community education. At the institutional level, the data highlight three forms of partnerships in pre-service teacher education, continuing professional development, and educational research. The partnership in pre-service teacher education is clearly a predominant form, featured in the policy at the national system and implemented at the institutional level, as compared with the other forms of partnership. The partnership in pre-service teacher education is evident through collaborative activities between university lecturers and schoolteachers in supporting pre-service teachers' practicum-based learning.

The predominance of partnership in pre-service teacher education, as compared with other forms of school–university partnerships, reflects a tendency in other national contexts (Jones et al., 2016). Indeed, an overview of the international literature shows that most of the research on school–university partnerships has focused on partnership in pre-service teacher education, particularly in practicum-based learning for pre-service teachers (e.g. Green et al., 2020; Gutierrez & Nailer, 2020; Herbert & Hobbs, 2018).

A critical consideration of these insights underscores some noteworthy issues. Firstly, the entire practicum time in Vietnam's pre-service teacher education programmes arguably remains limited in quantity. The data from MOET's current policy documents and HUEdu indicate that most four-year pre-service teacher education programmes provide two compulsory practicums, with a total of around 11 weeks. A review by Darling-Hammond (2014) suggested 30 weeks of supervised practicum and teaching opportunities for teacher candidates in each pre-service teacher education programme.

Secondly, the data in this paper suggest that the partnership in pre-service teacher education between schools and universities seems to be of a "complementary" tendency rather than a "collaborative" nature (see Furlong et al., 2000). We found little evidence of the roles and practices of the key partnership members (i.e. university lecturers, schoolteachers, and pre-service teachers) in collaboratively designing, delivering, and evaluating practicum-based learning opportunities. This issue identified in our research corroborates the findings of Nguyen (2020). Based on an analysis

of empirical data on a school–university joint exercise on practicum learning linked with a Vietnamese university, Nguyen (2020) described this exercise as a "separatist" partnership (see Smith et al., 2006), "characterised by marked division of labour, and insufficient communication between the partners" (Nguyen, 2020, p. 1).

Thirdly, the collected data indicated that the partnership in pre-service teacher education is mainly school-based and tends to use schools as a site for practicum-based learning. The university-based partnership could be further optimised to bridge a theory–practice gap. As noted earlier in Section "School-University Partnership: Aims, Characteristics, and Challenges", the university-based partnership involves practising teachers and school leaders in participating in the process of designing, delivering, and evaluating curricula and courses for pre-service teacher education programmes (Bullough et al., 2004).

Fourthly, the other forms of school–university partnerships of continuing professional development, research, and community education appear to be encouraged, with varying degree of explicitness, in Vietnam's education policy. However, we found few support mechanisms outlined in the reviewed policy documents to promote these partnerships. At the institutional level, most school–university collaborations, if any, in the areas of continuing professional development and research are based on the efforts and limited resources of one-time projects, individuals, departments, or universities. As noted earlier in Section "School-University Partnership in a Vietnamese University", the limited resources in funding, time, and expertise challenge the development, sustainability, and scale-up of these partnerships.

Conclusions and Recommendations

The aforementioned insights and issues, alongside evidence from the literature, enable us to propose the following recommendations to support development of innovative school–university partnerships in Vietnam and similar national contexts. It requires a strong partnership of policy, research, and practice to implement these recommendations.

The first recommendation is to strengthen support, at both the institutional and system levels, for school–university partnerships in continuing professional development, research opportunities, and community development. This support should include clearer policy guidance, stronger funding, and appropriate time structure for stakeholders to participate in partnership activities. Supporting these partnerships is essential, given that there is evidence (e.g. Burns et al., 2015; Green et al., 2020; Maheady et al., 2016) on the benefits of these partnerships for both schools and universities.

The second recommendation is to improve the balance in school–university partnerships to establish mutually beneficial relationships, more firmly and sustainably. As discussed earlier in this chapter, most school–university partnerships in Vietnam have been driven by the needs of universities in using schools as practicum sites for pre-service teachers and research sites for academics. This imbalance could be

addressed, to some extent, by authentically involving schoolteachers and leaders in the process of co-designing, co-delivering, and co-evaluating pre-service teacher education, professional development, research activities, and programmes. Importantly, time and recognition within the workload structure should be considered to encourage participation in partnerships.

The third recommendation is to systematically review the policies and implementation of current formalised school–university partnerships in pre-service teacher education to inform the process of improving the quality and effectiveness of these partnerships. This review should include evaluation of practicum-based learning of pre-service teacher education programmes in Vietnam. The evaluation needs to look into both the quality and quantity of practicum-based learning opportunities since these two factors are equally important in developing pre-service teachers (Gutierrez & Nailer, 2020). Future research should develop a context-sensitive framework to support universities and schools to conduct periodic developmental evaluation of their partnerships.

To conclude the chapter, we wish to argue that these partnership models are inter-related and complementary to one another other. The complementary nature of these partnership forms remains unclear, theoretically and empirically. Future research could probably explore, in depth, as to how each of these forms or models should be designed and implemented to effectively complement each other to transform teaching, schooling, teacher education, professional development, research, and community service.

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Chapter 7
Professional Learning and Development Partnerships as a Vehicle for Teacher Empowerment in Ireland

Fiona King, Eimear Holland, and Bernadette Ní Áingléis

Introduction

Two defining features of teacher education in the Republic of Ireland[1] centre around the concept of school-university partnerships and a career-long approach to teacher professional learning and development (Sahlberg, 2019; Teaching Council, 2011, 2013, 2016; Coolahan, 2003). The 'practice turn' (Zeichner, 2012) towards an increasing amount of school-based learning in initial teacher education (ITE) programmes is framed by policy articulations of 'partnership' between higher education institutions (HEIs) and schools. Critically, 'partnership' is intended to permeate the full learning continuum of a teacher's career from ITE to early career and continuing professional development (OECD, 2005; Teaching Council, 2011; Sahlberg et al., 2012; Government of Ireland, 2002a, 2002b). It is therefore not solely the preserve of ITE. This chapter focuses on a partnership between seven early career teachers and two university lecturers who engaged in a participatory action learning action research (PALAR) study. As a community of practice (CoP), their focus was on the domain of leadership for inclusion. It will firstly outline the policy context and support for partnerships in teacher education in Ireland, before going on to describe the goals and expected outcomes of this partnership. The effectiveness of the partnership will be reflected upon adopting O'Driscoll's (2007) framework of What?, So What?, and Now What? particularly exploring the primary and secondary empowerment outcomes for those directly and indirectly involved throughout the partnership.

[1] All references to Ireland in this chapter refer to the Republic of Ireland (26 counties).

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Policy Context and Support for Partnerships in Teacher Education in Ireland

'Partnership' in teacher education in Ireland strongly underpins the core professional values outlined in the 'Code of Professional Conduct for Teachers' as evidenced in the terms "professional collegiality, collaboration, sharing and cooperat[ion]" (Teaching Council, 2016, p. 8). "As teachers' learning is as fundamental to their practice as their teaching" (Teaching Council, 2016, p. 6), the values in the code influence teacher practices in ITE and lifelong learning. Within teachers' lifelong learning, teachers' learning is also enhanced within the shared space created by the school–university partnership, which in the context of this chapter involved HEI lecturers and early career teachers engaging in critical conversations through the adoption of a PALAR CoP model, which is described later in this chapter (Fig. 7.3). While there is no explicit definition of 'partnership' related to teachers' lifelong learning, there is an explicit emphasis upon collaborative practices throughout the policy framework for teachers' lifelong learning, known as Cosán (an Irish word meaning: pathway) (Teaching Council, 2016). Within Cosán, teacher professional learning and development is considered to be both formal and informal, personal and professional, collaborative and individual, and school-based and external. The concept of partnership is deliberately framed flexibly to invite and foster innovation and autonomy among the partners in how they build strong collaborative processes of engagement, imagination, and alignment that are fundamental to professional CoPs (Wenger, 1998) and teachers' lifelong learning. The opportunity for teachers to connect their wider professional learning and development partnerships to socially situated and experiential opportunities in their working contexts is also promoted within professional learning and development literature (Holland, 2021). Therefore, though schools are increasingly perceived to be sites of learning for all the partners at each stage of the teacher education continuum, the wider spaces within a professional learning and development partnership are increasingly accepted as rich sites for all partners, within and beyond the school–university partnership (Holland, 2021).

The policy position is clear in Ireland; teachers are increasingly viewed as 'teachers of teachers' (Coolahan, 2013; Teaching Council, 2020; Sahlberg, 2019; Government of Ireland, 2002a), and experienced teachers are recognised as school-based teacher educators for the purposes of school placement (Teaching Council, 2013, 2019). Similarly, all teachers are considered leaders within the Cosán Framework (Teaching Council, 2016); leaders of their classrooms, their learning and that of their colleagues, through for example ITE and induction mentoring. This is also evident in the recent policy documents from the Centre of School Leadership (CSL) (2019) in Ireland who are placing increasing emphasis on teachers as leaders. It is worth noting also that a policy commitment in Ireland to the development of reflective practitioners is, in our view, the golden thread that weaves partnership, professional learning and development and leadership that creates the potential for unique continuum-wide tapestries of collaboration in teacher learning. In the process, visible expression is given to a strong feature of teacher education policy and practice in

Ireland, namely an inquiry stance (Cochran-Smith & Lytle, 2009a, 2009b, 2009c) in how and with whom teachers learn. Schools as researching sites for student teachers, HEIs, and schools in school–university partnerships are increasingly being promoted in Ireland (Teaching Council, 2020; Holland, 2021), and support for the development of school–HEI partnerships in the area of research is one of the top three priorities in ITE (Teaching Council, 2019; Department of Education, 2021).

Research is considered to be at the partnership heart of lifelong teaching and learning as reflected in the Teaching Council's Research Strategy (2015) and realised through the Teaching Council's (2021a) CROÍ (Collaboration and Research for Ongoing Innovation) Research Series, which supports teachers' access to research and online resources, hosting research events and conferences, along with funding teachers to carry out research. One such funding scheme is the John Coolahan Research Support Framework which "places a strong emphasis on research activities that strengthen the links between research, policy and practice, and on collaboration among teachers, and between teachers and other educational researchers" (Teaching Council, 2021b, p. i). The school–university partnership being reported on in this chapter was partially funded by the Teaching Council John Coolahan Research Support Framework. The recently published online resource entitled: '*Using Research in Our School*', further reinforces the Teaching Council's (2021c) vision for how boundary crossing partnerships can realise the symbiotic potential of merging research and leadership activities.

The model of partnership in teacher education in Ireland is slowly moving from a restricted HEI-led work placement model (Conway et al., 2009) to a more complementary-type model (Furlong et al., 2000) whereby teachers and HEI partners recognise the distinctive sets of knowledge, competences, and dispositions that each brings to the collaborative 'hybrid space' (Zeichner, 2010). In this chapter, we argue that such partnerships, amongst early career teachers and universities, adopting a 'PALAR CoP' model of professional learning development (Holland, 2021) can prevent the early career socialisation impact of 'praxis shock' (Veenman, 1989) and washout of teacher education (Zeichner, 1987). In turn, this provides the rich humanising terrain for the lived interrogation of the practices and thinking and the collective pursuit of new scholarly-informed knowledge as each partner works through being-in-partnership. The partnership approach is therefore one that reciprocates a mutuality of trust, builds confidence, and "facilitates professional conversational engagement between all partners" (Teaching Council, 2019, p. 7). Critically, it is one that constantly interrogates and questions. This commitment to inquiry is, in our view, the essence of an accountable, professional community of learners, of practice, and of knowledge-building; it is at the heart of 'partnership' in teacher education in Ireland. As Cochran-Smith (2006, p. 42) asserts:

> unless underlying ideals, ideologies, and values (about for example the purposes of schooling, the knowledge that is most worthwhile for the next generation, and the meaning of a democratic society) are debated along with the 'evidence', we will make little progress in understanding the politics of teacher education.

The politics of partnership in teacher education invariably involves debates around teacher educator identity and the teaching-self. As Alexander (1995, p. 22) cogently remarks, "the central factor in professional development is the kind of person the teacher is". In the Irish context, this chapter explores how it is mediated in a partnership context.

Currently, there are no formal qualifications or pathways in Ireland to certify a successful transition from 'teacher' to 'teacher educator' giving credence to the stance that teacher educators belong to a 'hidden profession' (European Commission, 2013). In Ireland, there is a distinct absence of financial or other awards for practising teachers who take on mentoring roles in teacher education, (Hall et al., 2018). Similarly, until the publication of Céim (Teaching Council, 2020), practitioner inquiry was not meaningfully encouraged or facilitated throughout the continuum phases (Glenn et al., 2012). Moreover, teacher leadership development processes, especially for early career teachers, have also been under-developed (King & Holland, 2022). We argue that it is the actual experience of HEIs and schools collaborating in various ways and through an array of processes (Martin, 2011; Donnelly et al., 2020) that provides both the educative context and the evidence for successful partnerships that are learning-oriented.

What? So What? and Now What?

Given the significance of reflexivity and inquiry in teacher education in Ireland, this chapter will now adopt O'Driscoll's (2007) framework of *What?, So What?,* and *Now What?*, to reflect upon the effectiveness of the SUP involving the HEI and school partners across the PLD partnership.

What?

Firstly, we will explore the *What* in relation to the details and goals of the partnership. This chapter explores a SUP between seven early career teachers and two HEI lecturers over a three-year period (2017–2020). The teachers had undertaken a major specialism in special and inclusive education as part of their ITE between 2012 and 2016. The major specialism had six modules in total including a module on collaborative practice in 2015 and a module on leadership for inclusion in 2016, both led by the first author. All students in the specialism ($n = 25$) were invited to be part of a PALAR CoP on completion of their degree. Seven teachers elected to get involved.

Though the goals of this partnership evolved overtime, those related to this paper were agreed by the HEI lecturers and later verified by the teachers. The academics were cognisant of preventing the early career socialisation impact of 'praxis shock' (Veenman, 1989) and washout of teacher education (Zeichner, 1987). They wished to

facilitate the teachers' professional learning and development to enable them to stay close to their moral values (King, 2019) of inclusion. They also intended to narrow the theory–practice gap (Korthagen, 2010) related to inclusion, which is particularly evident for new and early career teachers in Ireland (Hick et al., 2017). In particular, the focus was on developing the six facets of equity for inclusion (Grudnoff et al., 2017) and to support teachers in overcoming barriers to applying their learning in their own contexts (Holland, 2021).

Central to a CoP model of professional learning and development is community members agreeing on the 'domain' (Wenger-Trayner & Wenger-Trayner, 2015), in this case 'leadership for inclusion'. Therefore, the goals and hopes for the LIn-CoP were explored and added to at the beginning of each of the eight workshops to ensure the professional learning and development was meeting the needs of the teachers. The online 'Trello' platform was used to record these hopes and goals along with target-setting action plans (TSAPs) and reflections during and between workshop meetings.

While CoPs have the potential to be transformative (Kennedy, 2014), little research exists as to how they support growth, in this instance, growth of various identities, e.g., teacher, researcher, leader, and personal aspects (Poekert et al., 2016). In line with Swennen et al. (2010), we understand teacher educators as having multiple identities ranging from classroom teacher to HEI tutor to "those who actively facilitate the (formal) learning of student teachers and teachers" (European Commission, 2013, p. 8). This all points to a suggestion that there are multiple teacher identities as one progresses from being a student teacher to becoming a lifelong learner. These identities include 'student teacher', 'teacher', 'teacher educator', 'researcher', and 'leader'. The aim of this research was to explore the potential, which school–university partnerships have for empowering early career teachers' multiple identities.

However, such growth across various complex spaces requires a professional learning and development model that supports reflection, inquiry, and critical action (Watts et al., 2011), leading to the PALAR strategy being adopted as a framework for the LIn-CoP. The PALAR LIn-CoP members engaged in the cyclical process of reflecting, planning, acting, and reflecting as individuals (Zuber-Skerritt, 2015) and as a community (Holland, 2021). Noteworthy in this LIn-CoP were the co-adaptive processes which allowed for the partnership to evolve over time with teachers engaging and growing in a personalised and participant driven way, as is illustrated in the TSAP example below.

Whilst Fig. 7.1 illustrates growth 'as' a leader, the following figure highlights that the teachers, at different points and to varying degrees, also opted to focus upon their growth through other aspects, including teacher and researcher (Fig. 7.2).

Figure 7.3 illustrates the elements, processes, facets for inclusion, teacher identities, and school–university partnership spaces, providing a focused snapshot of the model as relevant to the scope of this chapter. It is important to acknowledge that, in focusing upon how the model caters for partnership development, all aspects of the wider model are not included.

This chapter will now outline the *So What* in terms of empowerment at various empowerment levels for a variety of partners.

Target Setting & Action Planning - To Reach 'Leadership' Core Goals for Equity and Inclusion

Teacher's Name: Sarah

Describe your core leadership goal and what might happen if you reach this goal (e.g. the ends): Supporting new staff at work. To take part in more CPD in regards to SEN and to develop my leadership skills.
Describe the core leadership goal problem (e.g. the cause/s of the problem and effects): Opportunities to show interest/ initiatives when AP posts are responsible/ have implemented different strategies. Waiting for CPD course to begin- have not received start date yet. Have competed a survey to share what areas we would like support with. Covid restrictions- not sure if course is online. Time during the school day- course is after work.
Explain what have you already tried (explain if it worked / not & why): Reflected on idea of positive strategies on Jamboard from previous group session. Helped me focus. Email to confirm interest in 8 week Focus on intention- inquisitive and have showed interest in survey. On committee to explore WSE recommendation- how to have a whole school approach.
Describe the proposed strategy/ies for reaching your core leadership goal and list actions in sequential order (e.g. the means): -Reflection on steps taken with group during last session. -Ways/ resources to include whole school approach for WSE recommendation. -Expressed interest to take part in NCSE course in connection with DDLETB - 8 sessions on SEN. With colleagues from work- collaboration and discussion on how best to implement practices in school. -To use and include the new information in my daily routine and share with others.
Reflect on outcomes (positive or otherwise) - feel free to include photos etc of evidence: Answered survey to share areas that we would like the course to include. Course has yet to start. Thinking of other ways to get more involved and volunteer in school activities- especially in Term 2.

Fig. 7.1 TSAP example

So What?

This chapter answers a call to more thoroughly capture how a PALAR LIn-CoP professional learning and development model can facilitate teachers to *be* empowered at the individual, community, organisational, and wider professional levels, whilst also enabling them *to* empower others at each of these levels (Holland, 2021). Therefore, this work expands upon how partnerships can be effectively developed for all partners of the continuum, within and beyond the school–university partnership.

Individual Empowerment

From a partnership perspective, Holland (2021) maintains that individual empowerment acts as a crucial prerequisite for empowerment *at* and *for* the community (CoP), organisational (HEI or school) and wider professional levels. As such, the

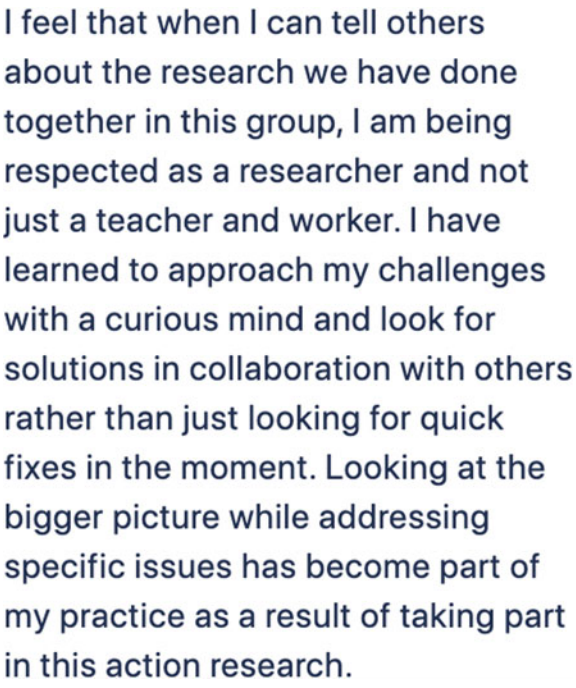

Fig. 7.2 'Researcher growth' reflective post on trello board

PALAR LIn-CoP partnership initially centred its professional learning and development processes and activities upon facilitating individual psychological empowerment (Zimmerman, 2000). We were cognisant that teachers' openness to self-identify and to share themselves as a resource for others within a partnership was contingent upon the degree to which they felt like experts (Dworski-Riggs & Day Langhout, 2010). Therefore, the LIn-CoP prioritised the knowledge and skills professional learning and development required for the teachers to feel individually empowered (Liden et al., 2000) as leaders for inclusion.

Whilst the LIn-CoP partnership was prepared for and encouraging of teachers' growth as organisational leaders and researchers, it honoured teachers' initial salient priorities for growth, predominantly as inclusive teachers and as teacher leaders for inclusion (see King & Holland, 2022). Such a commitment led to a central construct of psychological empowerment being developed: *competence* (Liden et al., 2000). With the hectic and varied demands of the school day, the teachers expressed how important it was that the LIn-CoP's dimensions of domain, practice, and community were used as a vehicle to prevent not only the washout of 'leadership for inclusion' professional learning and development at the ITE phase, but also to further empower them as leaders for inclusion at the remaining continuum stages. As per cognitive and situated cognition perspectives (Van Kruiningen, 2013), community activities and processes were used "as a driving force and anchoring framework for" (Huang et al., 2011, p. 1201) connecting their LIn professional learning and development to the real world (Donnelly et al., 2020). Whilst external expertise, in this case by the

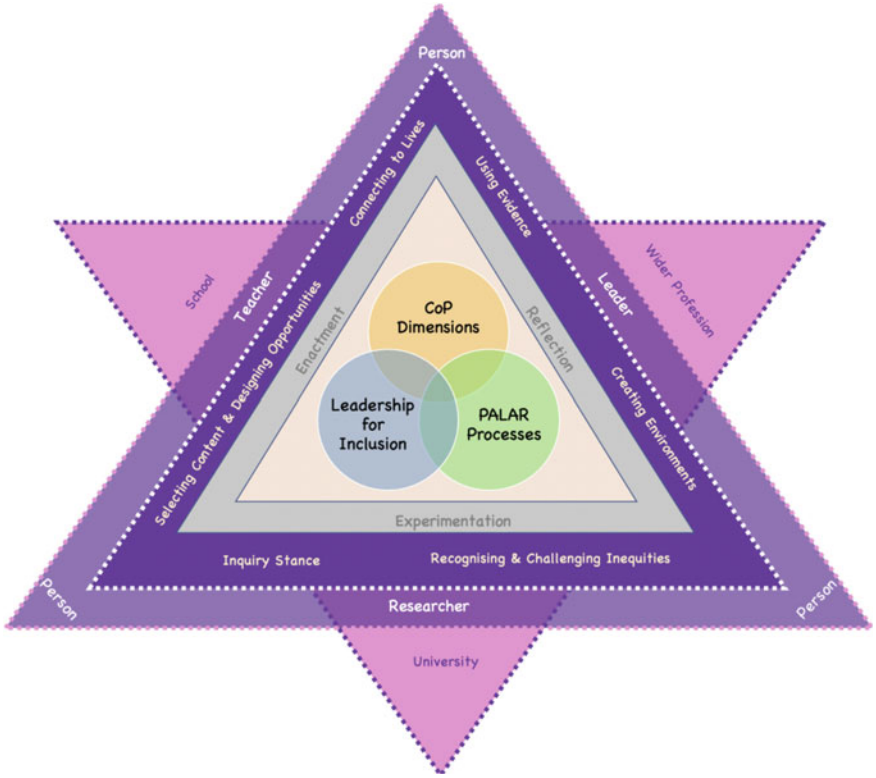

Fig. 7.3 PALAR LIn-CoP framework for PLD

two HEI teacher educators, is often considered to boost a CoP's progress (King & Feeley, 2014), the teachers also valued the collaborative-directive (Dworski-Riggs & Day Langhout, 2010) facilitative (Poekert, 2011) style which promoted their sense of democracy, agency, and autonomy (Holland, 2021). The following personalised and participant-driven processes empowered the teachers to discover their own richness of knowledge and skills more deeply (Ruechakul et al., 2015): agenda and priority setting; problem and solution identification; context specific critical action target setting; celebration and preparing to present and presenting. Figure 7.4 shows how the teachers engaged in the 'presentation' process at a national conference for teachers, academics, and other education stakeholders.

Another example of teachers 'presenting' includes that with student teachers in a Higher Education institute (see Fig. 7.5).

An example of teachers 'celebrating' their work at the national FEILTE conference is evident in Fig. 7.6 where the teachers worked collaboratively to showcase their individual and collaborative learning.

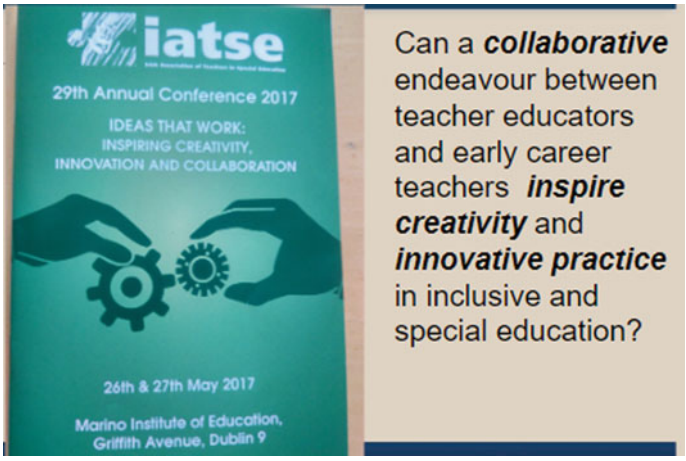

Fig. 7.4 Example of 'presentation' process: slide from presentation for IATSE conference

Fig. 7.5 Example of 'presentation' process: slide from 'teachers in residence' presentation to student teachers

These PALAR processes assisted the teachers to realise their expertise over time (Dworski-Riggs & Day Langhout, 2010) and gifted them with a sense of permission to feel confident and competent (Holland, 2021).

To narrow the theory–practice gap and overcome the socialisation threat of washout, a multi-space, multi-pathway approach was adopted (Holland, 2021), building a partnership implementation bridge (King, 2016). Iterative and sustained cycles of professional learning and development enactment, active experimentation, and reflection (Holland, 2021) provided the CoP members with authentic, contextual, and relational opportunities from which to grow and be empowered. Depending on the nature of their critical action targets, such opportunities were embedded within a variety of situated spaces, including but not limited to: their school, the partnership HEI and wider professional teacher education and research settings, but more notably at the early stages of LIn-CoP engagement, their class context. With respect

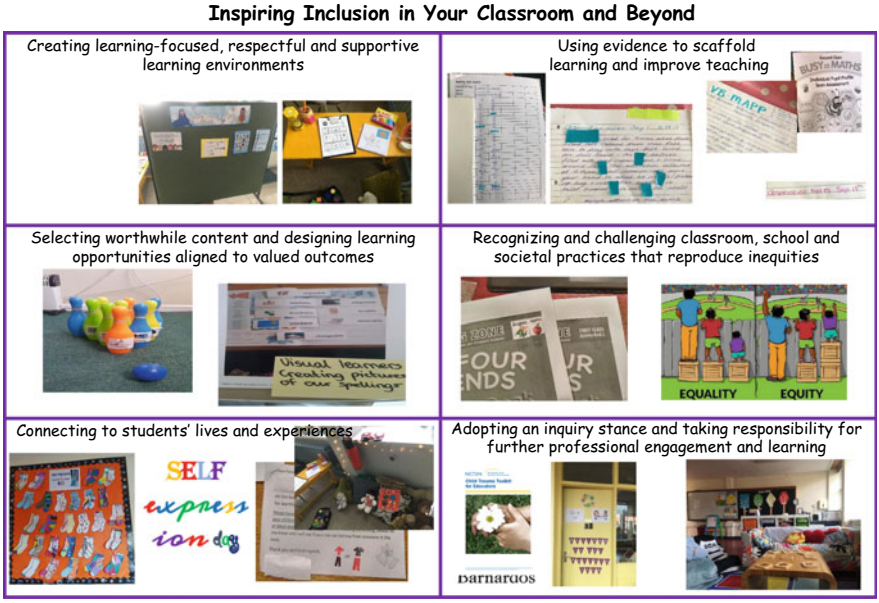

Fig. 7.6 Example of 'celebration' process: FÉILTE conference poster. https://docs.google.com/document/d/17rwWcYODVeWJ9OAwB_tqF3wia4BS4JIf/edit

to primary and second order change, the teachers in this study shared that their individual empowerment made an *impact*; another of Liden et al.'s (2000) psychological empowerment constructs. Accepting the teacher as primary beneficiary of professional learning and development (King & Holland, 2022), the yarning process and shared reflections upon critical action target outcomes facilitated the teachers' explication of *how* their actions enhanced pupil behaviour, engagement, and attainment. As believing that one's actions make a difference (Yukl & Becker, 2006), however modest, is considered to be as significant as actually making an impact (Liden et al., 2000), the teachers' individual empowerment was further augmented.

Individual and Community Empowerment

As proposed above, whilst teachers feel more capable of empowering the community and its individuals if they perceive themselves to be legitimate knowers (Holland, 2021), their individual potential for empowerment at the community level is inextricably and reciprocally interlinked to their social engagement in and with that partnership community. A co-constructivist approach and participative dynamic facilitated the teachers to support deeper reflection 'of' and 'for' growth, by, for example, exploring one another's implementation challenges, barriers, and solutions (Chevalier & Buckles, 2013). The process of yarning provided "room for each individual's

subjective understanding" and for priorities to be aired (Glassman & Erdem, 2014, p. 209), whilst also offering the evidence required for peers to identify context specific patterns to unfold (Holland, 2021) and for "mid-level generalisations" to be drawn (Korthagan, 2010, p. 102). Such collaborative opportunities empowered the individuals and community to exercise "mindful abstraction" (Salomon & Perkins, 1989, p. 124), whereby they deliberately decontextualized a critical action shared by another member and adapted its original application for use in their own context. Figure 7.7 is an illustration of one example and how the process facilitated the teachers to identify and reflect upon one another's TSAP critical actions in context.

In doing so, teachers could see that the sharing of critical actions and outcomes was contributing to the empowerment of the community as a whole (Holland, 2021).

Over time, the teachers were provided with the opportunity to vary the scope of their critical actions, setting targets for various growth aspects, e.g., teacher, leader, researcher etcetera across the various authentic spaces mentioned above. Each boundary spanning experience within and beyond the partnership exposed the individuals and the CoP to the dissensus, (Kakavelakis & Edwards, 2011) and cognitive conflict required for deeper and wider knowledge expansion (Borzillo & Kaminska-Labbe, 2011), knowledge transfer and growth (Holland, 2021). The teachers found that the social robustness (Pigg, 2002) of their expert knowledge was bolstered by their continued engagement in and with an influential cross-school specialist network (Holland, 2021). They often referred to their 'strength in numbers' empowering them

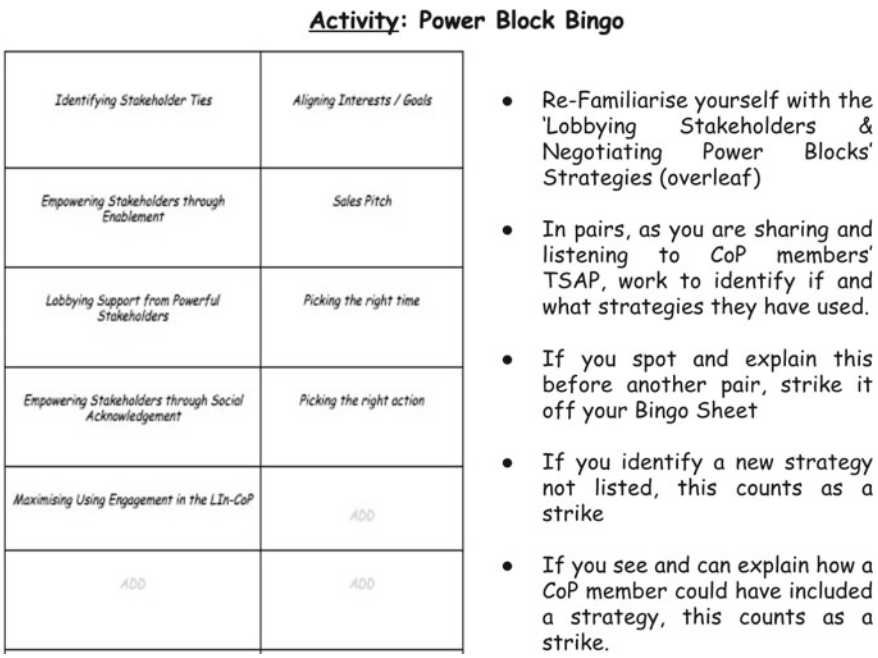

Fig. 7.7 Example of critical contextualisation evaluation: 'power block bingo'

to go together, where they would not have gone alone (King & Holland, 2022). This enhanced sense of legitimacy empowered them to believe that they had the 'power to' empower, strengthen, and foster growth in others beyond their classrooms (Pigg, 2002). Their individual and community empowerment as teachers contributed to their self-identification and empowerment as 'teacher educators' and 'teacher leaders', as evidenced by their engagement with a 'teachers in residence' opportunity at the partnership HEI. They also self-identified and were empowered as researchers, reflected by their successful application for research funding; dissemination of their work by presenting at the Teaching Council's annual FÉILTE (Festival of Education in Learning and Teaching Excellence) Conference; and preparation and publication of a research paper in an international journal. These partnership actions contributed to the individual, community, organisational (partnership HEI), and wider professional empowerment of the teachers, whilst also supporting the empowerment of professionals within and beyond the LIn-CoP partnership.

Organisational Empowerment (And Its Empowerment Prerequisites)

Engagement in the LIn-CoP partnership highlighted that the nonlinear symbiotic interconnected and interdependent relationships between individual, community, and wider professional empowerment are key prerequisites for effectively negotiating the complex challenges of one of the most important empowerment levels for the teacher in any partnership: organisational (Holland, 2021). The organisational architecture surrounding CoPs often fails to scaffold and strengthen them (Pyrko et al., 2017). Cultural, structural, and relational barriers to professional learning and development implementation and empowerment (Cooper et al., 2016) were identified by the teachers through stakeholder analysis, problem identification, and resource analysis processes (Chevalier & Buckles, 2013). However, through solution identification, conflict, and change management processes, the teachers used their power 'with' and 'through' one another (Holland, 2021).

Raising their critical consciousness, this enabled them to design effective critical actions for overcoming those power asymmetries, which impeded their professional learning and development efforts (Zuber-Skerritt, 2015), and ultimately their organisational empowerment. Whilst the teachers effectively identified influential stakeholder ties; designed appropriate strategies to connect to their shared interests (Zuber-Skerritt, 2015); and empowered colleagues to engage in inclusive practices; at this point in the organisational partnership journey, the majority of the empowerment outcomes at the organisational level could be attributed to the legitimacy they had gained from their individual, community, and wider professional empowerment levels, including but not limited to applying for specialist positions within

their school; gaining support from school management to pursue postgraduate qualifications related to inclusion and leadership etcetera, all of which bestowed upon them both symbolic and literal legitimisation (Holland, 2021). However, as recently qualified teachers facing complex barriers to professional learning and development implementation and 'cascadence' (Holland, 2021), knowledge of what to do politically, was not always accompanied by the complex systems mindset required to do it (Kools & Stoll, 2017), though this varied over time and across teachers. Some used developmental approaches to empower colleagues cautiously and diplomatically, whilst others used thicker forms of power (Thomas, 2011) to engage slightly less cooperative and/or less inclusion focused colleagues. However, there was still a way to go to develop the teachers' 'political efficacy' (Watts et al., 2011) and 'critical motivation' to enact the necessary changes for their own organisational empowerment, and for that of their organisation (Holland, 2021).

Finally, this chapter will discuss the *Now What* as it relates to sustainability of partnerships such as the one in this chapter.

Now What?

Sustaining new innovations, in this case partnerships, can be difficult and warrants attention. This requires integrated action at the micro-, meso-, and macro-levels of the system (Bronfenbrenner, 2009). At the micro-level, it is important to reflect upon the sustainability of the PALAR LIn-CoP. While this partnership can be described as having developed teachers' "bilingual fluency in the languages of critique and possibility", the research and literature bases fail to recognise the professional learning and development elephant in the room: professional learning and development and partnership design and facilitation falls short of adopting the complexity and critical thinking required for sustainable empowerment and transformation at the organisational level and for the organisation (Holland, 2021, p. 269). Problem identification processes revealed that the most imminent challenge to their empowerment lay at the organisational level. As partnership facilitators, we are extremely cognisant that professional learning and development is a socially just and moral enterprise (Rahman et al., 2014) and, as such, we have a moral responsibility to facilitate teachers' empowerment of themselves and one another, to develop not only a coping intelligence (Srivastava & Tang, 2015) but also a deeper problem-solving mindset (Draper et al., 2011) to persist in the face of organisational barriers (Zuber-Skerritt, 2013). Therefore, as facilitators, we are at a critical juncture at the "in-design" professional learning and development journey to critically reflect retrospectively and prospectively to inform the 'what now' with theories which acknowledge and address the organisational complexities which the teachers' are embracing and tackling. Doing so will support the teachers' initial development of a final fluency in the "language of leadership for change and empowerment" (Holland, 2021). This

should go some way towards sustaining the partnership's accrued capacity, quality, and meaningful change (Lovett & Gilmore, 2003); to prevent wash out (Zeichner, 1987); ensuring that "the time and resources spent" are not wasted (Poekert et al., 2016, p. 308) and that ripples of change are sent out into the complex partnership.

Whilst the above micro-level recommendation is valuable and socio-culturally relevant, alone, it runs the risk of serving a 'trouble-shooting' purpose, which should not be solely relied upon. At the meso-level, there is a significant role for leadership in schools to afford teachers the time and space (King, 2016) required to empower them to create collaborative learning cultures. However, school leaders cannot simply be expected to understand how to alter professional cultures (Holland, 2021) or to empower leadership behaviours in their staff (Yukl & Becker, 2006). Therefore, they must be supported to learn (Fitzpatrick, 2018) through for example, the CSL (2017), whose aim it is to "ensure the provision of high-quality professional development opportunities for aspiring and serving school leaders" (p. 11). Additionally, within the HEI space academics need to engage in 'brave research' in partnership with schools in order to lead to the transformation of education (Swennen and Powell, 2020, p. 155). As partnership facilitators, we have a responsibility to advocate for and raise critical awareness of the potential of school partnerships by presenting and celebrating at the local level in our university, in schools and with wider professional bodies. Only then can we begin to challenge hegemonic practices that shape current approaches to partnerships, for example, expert and novice, theory, and practice divides. Notwithstanding the above, it is essential to consider how to scale the concept of partnerships, which arguably cannot be done without all partners driving it and working strategically to implement it (Coburn et al., 2013).

At the macro-level, relevant local, national, and international partners need to demonstrate more value for the micro- and meso-level issues related to partnership. Governments and other funding bodies need to adopt funding strategies (Coburn et al., 2013) for partnerships that enhance system capacity through reciprocal learning of diverse partners. Examples in Ireland include the aforementioned John Coolahan Research Fund and the Schools Excellence Fund. While government policy is advocating such partnership-supportive approaches, these tend to be in the form of initiatives, and the concern is that these initiatives, like many others, will disappear without collaborative cultures and partnerships being fully embedded in the system. A move is required away from isolated initiatives to partnerships being the norm in and across schools and HEIs towards the development of an integrative and inclusive partnership structure and culture. Holland's (2021) recommendation is adopted, calling for all partners within education, policy, and research to endorse a multi-level partnership approach, whereby investment is top-down, but "local, innovative, and creative" professional learning and development design, and evolution is bottom up in collaboration with facilitative partners, including for example "regional hubs", such as the Education and Training Boards (Fitzpatrick, 2018, p. 10). To adapt Coolahan's (1995) advice: taking "ownership of the [partnership] agenda for educational change…is an important cultural shift we need to make" (p. 10). However, this partnership paradigm

shift is reliant upon all partners in "casting off the cloak of dependency on the Centre for the solution of all problems" (Coolahan, 1995, p. 10). In the process, we come a little closer to achieving partnership empowerment and change.

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Chapter 8
Stimulating Australian STEM Education in Regional Queensland Through a Novel School–University–Industry Partnership

Linda Pfeiffer, Ondine Jayne Bradbury, Kathryn Tabone, and Mirrin Rashleigh

Introduction

The Science, Technology, Engineering, and Mathematics (STEM) crisis involves a shortage of students—the next generation, who will be responsible for our futures—studying STEM. The future without people having competency in STEM disciplines will be problematic as over 75% of jobs now require STEM skills (Chubb et al., 2012). STEM is vital to all aspects of the nation's growth including Australia's competitiveness, health and well-being, and prosperity (Office of the Chief Scientist, 2014). One method to address the STEM crisis is to look at the way STEM is taught in schools and to develop educators' skills in teaching STEM-based curriculum to be more engaging and innovative to spark interest in students for future employment within STEM (Department of Education, 2016). As a result, STEM in the Gladstone region has a 'space, place, and face' and importantly is being replicated across the Central Queensland University (CQUniversity) regional footprint. The Queensland Government invested $2.8 million in the Advanced Technology and Innovation Centre (ATIC) to support industry and education in Central Queensland, which was modelled on the design of STEM Central in Gladstone (Queensland Government, 2020).

The school–university partnerships in Gladstone through STEM Central have evolved, and the strength of the partnerships is the fluidity to respond to local needs and opportunities. Within this chapter, the key strength in the combination of industry, university, and primary and secondary school sectors is explored. Findings showed that each key partner brings different perspectives to the project in

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addition to addressing a common long-term vision of improving STEM education to tackle STEM skill shortages in the local region. As a result of this innovative and research-driven space where school communities could have access to professional and contemporary thinking based on research and evidence from a wide variety of STEM education professionals, local schools displayed a willingness to try new ways. In turn, schools then took the opportunities that were provided to deliver STEM education for students in the region. This chapter aims to provide insights into these deliveries and reflect on the future design and sustainability issues within the novel university–school–industry partnership of STEM Central.

Background Literature

This literature section explores key themes within the research that underpins the STEM Central school–university–industry partnership. Pertinent to the development of the discussion pertaining to this partnership are the emergent tensions and challenges inherent in the STEM education space, particularly in the proficiency of teachers when delivering STEM content in the classroom. These aspects are also influenced by the policy implications of embedding effective STEM teaching and learning approaches in both school and university contexts.

STEM Challenges in Australian Contexts

Over twenty years of reports and articles from government, business, think tanks, and the media have drawn attention to the Science, Technology, Engineering, and Mathematics (STEM) learning problem (Timms et al., 2018). Challenges in STEM learning in Australian Schools (Timms et al., 2018) and the Advance Queensland Strategy have identified eleven priority industries that support growth in the region (Queensland Government, 2019). Investment into STEM education and research has been recognised as critical to the future success and growth of the country. In 2016, the Education Council released the National STEM School Education Strategy (the Strategy) 2016–2026. The two goals of the Strategy were to.

- Ensure all students finish school with strong foundation knowledge in STEM and related skills and;
- Ensure that students are inspired to take on more challenging STEM subjects.

With these significant statistics and goals in mind, CQUniversity identified the need to assist regional teachers to engage with STEM and learn new ways of teaching STEM.

Providing real-life and contextual applications is fundamental when providing STEM experiences, and this method requires teachers to draw upon their knowledge, skills, and creativity (Nadelson et al., 2013). Limited confidence in approaching this style of teaching and learning is often seen in teachers when teaching STEM

curriculum either informally or in the classroom context. In their research, Lee et al. (2004) acknowledge that a limited number of teachers were sufficiently prepared in their knowledge of science content or teaching strategies and required professional development opportunities to increase their knowledge and instructional skills. These factors demonstrate the need for teachers to be provided with the opportunity to experience and engage in practical STEM teaching and learning opportunities with the ability to seek feedback and reflect prior to embedding this in their teaching (Nadelson et al., 2013).

STEM Central aims to develop a model of institutional interdisciplinary collaboration for developing curriculum and resources. Working with teachers' strengths and including an approach that respects the intellect, curiosity, and questioning of educators provides the opportunity to connect with science comfortably (Howes, 2002). Curriculum design needs to be innovative, and a range of science curricula and resources need to be developed. STEM curriculum should be flexible, adaptive, and integrated rather than as an add-on program. When working with teachers, providing a range of possible science ideas and activities that could be used in the classroom introduces participants to research processes, establishes connections, and acknowledges their talents.

School–University–Industry Partnerships

Findings from a recent report into *The Review of STEM Education in Queensland State School*s Final report 2018 included that STEM education can be strengthened with increased access to sustained and specialised professional development, students exposed to positive STEM experiences and access to STEM resources within the community (Queensland Government, 2018). Amongst the six key strategies within this report was the inclusion of promoting and establishing partnerships between schools, universities, community, and industry. Outlined as the reasoning behind these partnerships was the emphasis on real-world examples for students learning in addition to increasing the capability of teachers to feel "confident about their STEM knowledge and use of effective STEM pedagogical practices" (Queensland Government, 2018, p. 13).

The National STEM School Strategy: a comprehensive plan for Science, Technology, Engineering, and Mathematics education in Australia (Education Council, 2015) identified five key areas for national action through which school education has the greatest leverage. These include.

1. Increasing student STEM ability, engagement, participation, and aspiration.
2. Increasing teacher capacity and STEM teaching quality.
3. Supporting STEM education opportunities within school systems.
4. Facilitating effective partnerships with tertiary education providers, business, and industry.
5. Building a strong evidence base.

Research has shown that the more fully a collaborative partnership considers the various types of expertise possessed by its members, the more richness of understanding and direction it will receive (Zetlin & MacLeod, 1995, p. 6). Successful collaborations are dependent on supportive and strategic leadership at multiple levels, including top-level institutional leaders, partnership-level leaders, and day-to-day leaders (Miller & Hafner, 2008). Community partnerships have been discussed as powerful in their connections with schools as according to Tytler et al (2018), although teachers are trained in certain areas, they cannot bring the same "depth of understanding" of practicing or trained STEM professionals (Tytler et al., 2018). Developing links within the community that includes university and industry-based STEM facilitators enhances the opportunity for engagement both of students and teachers in the STEM education space (Zeichner, et al., 2015).

Methodology

This chapter applies case study methodology to first outline the context of the school–university–industry partnership and then describes two significant projects as cases that were designed, developed, and implemented through STEM Central. A case study approach was applied as this chapter explores a specific context and provides a way of investigating university–school–industry connections within this context (Atkins & Wallace, 2012). Each case was developed to include the genesis of the programme and related funding, the teaching, and learning foci, the participants in the programme and discusses the general outcomes of each program.

What Is STEM Central?

STEM Central is a purpose-built space for collaboration and research-based learning located at CQUniversity Gladstone Marina campus. The state-of-the-art facility consists of seven interchangeable brightly coloured zones including a zone for flying drones and a dark room for light and VR experiments with a green screen wall for filming. The design of the facility included not only the development of a physical space but also associated educational programmes aimed at upskilling teachers, inspiring school students and engaging the community in a future fuelled by STEM knowledge. The resources include a variety of robots for coding, drones, 3D printing, building catapults, holograms, and much more. The facility has fostered and enabled the growth of STEM capacity, giving local people the confidence and interest to acquire the STEM skills they need to nurture their community and achieve global competitiveness. Programmes at STEM Central include workshops for the early years, Indigenous people, people with a disability, seniors, multicultural, all of the community. Partnerships have developed with national and international organisations including Questacon, the Commonwealth Scientific and Industrial Research

Organisation (CSIRO), Queensland Museum, Office of the Queensland Chief Scientist, Rio Tinto, Shell QGC, Santos, Inspiring Australia, schools, education providers, Universities including QUT and MIT, and STEM Central funding partner ConocoPhillips, Australia Pacific LNG. The facility has brought together university academics, teachers, school children, industry, and the wider community to enhance the local community's understanding of STEM and provided a 'place, space, and face'.

STEM Central has a strong educational focus and provides local teachers with the necessary support to effectively engage students with learning opportunities in a hands-on problem-based learning approach. STEM-related content is taught and applied either in a traditional and discipline-specific manner or through a multidisciplinary, interconnected, and integrative approach. Both approaches are outcome-focused and aim to solve real-world challenges. The schools in the regional area of Gladstone form a critical part of a broader STEM education ecosystem which includes pre-schooling, vocational education and training, higher education and workplace training and development. In addition to supporting teachers, the programmes and associated research opportunities within STEM Central also provide the necessary support to effectively engage students with STEM opportunities in an inquiry learning approach which is critical to addressing the STEM crisis. The project team recognised that to create learning environments conducive to STEM skill development for children there needs to be the appropriate skill development and understanding of the scientific process for educators. STEM Central aims to provide valuable, enriching experiences to bring STEM to life, and these experiences were often opportunities that most local teachers did not generally receive. This is due to the lack of local STEM professional development opportunities in the Gladstone region as many professional development offerings were either online or in capital cities. STEM Central is not only a facility used with schools, but also with community, businesses, and industry. It provides a 'place, space, and face' as a central hub for the community. The development of this space is seen as being critical to addressing the STEM crisis through effective partnerships with business and industry.

A Collaborative University–School–Industry Partnership that Responds to the Needs of the Region

Gladstone region is home to more than 60,000 people and accommodates 21 private and public primary and secondary schools. The regional city of Gladstone is in Central Queensland, situated approximately 510 kms (320 miles) north of Brisbane, the nearest capital city. The region is diverse, containing both seaside and rural communities. Gladstone has the State's largest multi-commodity shipping port, the Port of Gladstone. Gladstone is home to a range of industries, including the world's largest alumina refineries, an alumina smelter, a power station, cement and chemical manufacturers, and three Liquefied Natural Gas (LNG) plants on nearby Curtis

Island. Gladstone is set to become one of the world's largest hydrogen equipment manufacturing hubs with multiple hydrogen industry initiatives recently announced (Queensland Government, 2021). As this background would suggest the Gladstone Region has a strong industrial base, well developed infrastructure, and many of the employment opportunities are based around STEM careers (Pfeiffer & Tabone cited in Fitzgerald et al., 2020).

The Port of Gladstone is considered the gateway to the Southern Great Barrier Reef, which brings a strong focus on the environmental sciences to the region. Gladstone has historically been a town of industrial development in peaks and troughs. It is argued that Gladstone has experienced these industrial development cycles over many years and has managed to weather them relatively well (Cameron et al., 2014). Against this backdrop of industry, there coexists many important coastal habitats, such as mangroves, saltmarsh, sand and mud banks, coastal reef, sand dunes, and seagrass. This unique combination of large resource industries and the World Heritage-listed Great Barrier Reef provides a niche context for local and contextual science learning experiences to be developed.

CQUniversity has strong connections with schools through the outreach and engagement programmes and activities that have been developed and implemented over a number of years. Activities such as trips to Quoin Island Turtle Rehabilitation Centre in partnership with local schools as well as annual science week events have enabled a strong relationship between the university and education providers to thrive. These programmes and activities have also involved industry and community partners who have provided support either through direct funding or by providing subject matter expertise. This broad approach appealed to Australia Pacific LNG as there was a recognized skills shortage for STEM professionals. Instead of funding individuals or smaller programmes, Australia Pacific LNG supported the partnership approach that CQUniversity was growing with schools and community to grow the STEM career pipeline.

Initially, STEM Central was created within a university–industry partnership between Australia Pacific LNG and CQUniversity to design, develop and implement the STEM Central facility and associated programmes which arose out of the need to improve education outcomes by providing professional development for teachers rather than from an engineering or environmental science focus. The model was a deliberate effort to foster partnerships with schools through a professional development focussed on making STEM interesting and appealing for students, thereby increasing the number of STEM professionals in the system. Over time, in response to the needs of the region, STEM Central has evolved from professional development for teachers into a 'place, space, and face' not only full of resources and programmes but where partnerships between the university, schools, and industry can flourish within the community.

STEM Central University–School–Industry Partnership Case Studies

Since STEM Central opened in 2018, there have been hundreds of events, programmes, workshops, and activities held at the facility. Strategic funding opportunities have ensured that there is no charge to use the facility, and the project team have actively promoted the use of the facility to local community groups, services, and organisations. There have been a wide range of diverse community members utilising the facility. The project team has targeted various groups who have not traditionally been involved in STEM and offered programmes and activities to engage them with STEM. The following cases outline two recent programmes that have been developed and delivered through the school–university–industry partnership of STEM Central.

STEM Professional Development (PD) for Year 3 and 4 Teachers

Current educational research around STEM teaching has brought tensions to the surface around the capacity, capability, and willingness of teachers to instruct unfamiliar subject matter. These current considerations highlight the need for formal training for classroom teachers in the STEM space. It is vital to develop innovative programmes to provide practicing teachers with quality STEM professional development. To develop quality professional development (PD) that embeds authentic opportunities, there is a need for industry involvement. The PD in this case study was targeted and authentic in design as it brought together knowledge and facilitation expertise from both industry-based and university-based STEM providers, researchers, and teachers. The STEM PD was funded by Australia Pacific LNG as part of the STEM Central project funding. The challenges associated with this programme was that although the programme included funding for teacher release, with a chronic teacher shortage in Australia and even greater in regional locations, some schools who expressed interest in sending their teachers simply could not find replacement casual relief teachers. The PD involved 12 participant teachers, one group of six Year 3 teachers and another group of six Year 4 teachers. The goals of the PD were to provide the participant teachers with opportunities to create student-centred approaches and for their students to become problem solvers and critical thinkers using science skills and understanding, and the engineering design process (EDP). Each group of teachers attended in pairs from the same school based in regional contexts. This was intentional to encourage peer support and provide an opportunity to apply STEM project-based learning principles in the following school term. The 12 teachers involved in the study were from four schools both government and non-government.

Teacher participants from both the Year 3 and Year 4 contexts discussed the challenges of embedding STEM strategies linking to curriculum constraints and "control

from above" (Teacher—Year 4). One Year 4 teacher discussed the notion of control as "you must do that test and that test" constraining the opportunity to include learning from their STEM PD in their classroom. In response to an interview question relating to the future of embedding STEM in their classrooms, both teacher participants from Year 4 made specific reference to the concept of a 'barrier' of embedding the learnings from the STEM professional development and curriculum requirements. The direct reference to the C2C (curriculum to classroom) assessment task is specific to the Queensland context: "because we are working toward a C2C assessment task, that threw up so many barriers and I remember we sat there and ran through so many ideas and came to a dead end at different points" (Teacher—Year 4). The Year 3 teachers also included in their response to the future of integrating STEM strategies in their classroom as being "unlikely" due to their teaching instructed being impacted "heavily by C2C" (Teacher—Year 3). Successes of this programme included the small group and individualised PD provided for the teachers, the opportunity to experience student-centred inquiry first-hand and the time available to develop projects that were able to be implemented in the classroom. The university–school–industry partnership provided a local context and STEM Central provided a 'place, space, and face'.

Year 9 and 10 Science Experience

The 'Science Experience' (formerly The ConocoPhillips Science Experience) is a three-day experience developed by university Academics to immerse Year 9 and Year 10 students in authentic science related to research. There are programmes across Australia at many different universities. Each programme is designed to provide students with an opportunity to participate in a wide range of engaging STEM activities under the guidance of experts in the field who are passionate about their work. The programme takes place in over thirty-five universities and tertiary institutions, within many different laboratories and lecture theatres. Participants conduct experiments in the university laboratories, meet and hear senior lecturers in the lecture theatres, attend site visits and walk around and experience what it is like to be on the campus of a university or tertiary institution. More than 81,000 students have taken this rare opportunity across Australia, up to date. The programme also provides information about further studies in STEM. It highlights the wide range of careers that allow students to pursue their interest and abilities in the sciences.

In Gladstone, the 'Science Experience' has been offered since 2015 at CQUniversity Gladstone Marina Campus. The programme has been developed using the technology, industry, and environmental science focus afforded by the location. Over time, the framework for the programme has evolved and is based on the model presented in Fig. 8.1.

This model includes bringing together presenters and sessions that are hands-on for the students. Allowing the students to experience sessions on the university campus allows them to experience "a day in the life of…". Along with the authentic

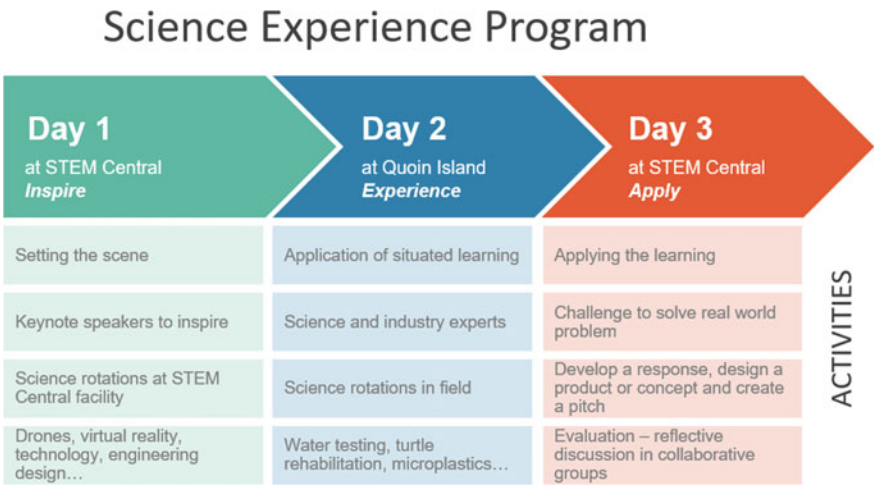

Fig. 8.1 Model for the 'Science Experience' Gladstone (Pfeiffer & Bradbury, in review)

experiences that are embedded within the sessions, students also embark on an excursion in one of the local wildlife rehabilitation centres. The full day excursion to Quoin Island Turtle Rehabilitation Centre allows the students to experience the work of the scientists and volunteers at the turtle hospital. The model developed for this location allows for STEM learning while immersed in the action or experience. Figure 8.1 demonstrates how the programme allows students to be inspired (through contextual keynote experts), experience and apply the concepts (through authentic experiences in a situated learning approach), and then apply the concepts they are immersed in (in a collaborative, social setting). Pairing outside the classroom learning environments with curriculum-based concepts in this active and collaborative way can increase students understanding of skills for future STEM careers.

What Do the Case Studies Tell Us?

The purpose of STEM Central was to establish a contemporary STEM facility in Gladstone to address the national (and international) STEM crisis at the local level for the benefit of the Gladstone community. STEM Central has developed a physical space and associated educational programme aimed at upskilling teachers, inspiring school students and engaging the Gladstone community in a future fuelled by STEM knowledge. Therefore, in its design, STEM Central has brought together University Academics, teachers, school children, industry, and the wider community to enhance the understanding of STEM. The project continues to provide local teachers with the necessary support to effectively engage students with STEM opportunities in a hands-on problem-based learning approach which is critical to addressing the STEM crisis.

Year 3 and 4 Teacher PD

Although this project was based on a small sample of teachers in a specific region of Queensland, the results from this research provide opportunity for broader applications. When analysing the approach to the PD design, one of the key components included industry connections with school stakeholders. This study highlights an embedded space that teachers attended collectively, however, school–industry partnerships forming collaborative spaces where educators collectively share practice and collaboratively work on their practice are possibilities for pedagogical development. Additionally, further research relating to the STEM Central space may allow for university and industry partners to see the possibility for similar design and spaces in other locations. The most effective PD relates to teachers working collaboratively, in watching each other's classes through the eyes of students, and modelling high impact practice (Caplan, et al., 2016). The research reported in this project did provide locally based, regional teachers with the opportunity to work collaboratively, with the hope that the teachers would then implement the modelled classroom practices to effectively engage students with STEM pedagogies in their primary science classrooms.

Science Experience

The Year 9 and 10 school students broaden their knowledge and skills through immersive STEM experiences and engaging with university, school, and industry partners including BOP Industries, Quoin Island Retreat, Tangaroa Blue, Coastal Marine Ecosystems Research Centre (CMERC), Harbour Watch, Gladstone Ports Corporation, and academics with expertise in drones and VR. The 'Science Experience' has been funded by ConocoPhillips up until 2019 when it was taken over by Santos. Both industries are gas plants and have locations in Gladstone. The challenges associated with this programme are that the programme is fully funded and as a result the spaces fill up fast with students from across the State of Queensland, meaning that many do not have the opportunity to attend. Successes of this programme in Gladstone include the strong university–school–industry partnerships that allow the programme to have a rich local context. Each of the partners contributes to the context and hands-on activities provided to the student participants while also learning about STEM in context from one another.

Future Considerations

STEM Central is a 'place, space, and face' for STEM education in regional Queensland. The future directions of the facility, programmes, and partnerships will continue

to evolve and change. During 2020–2023, the *Buraligim Weiber* programme ('place of learning') has been developed and implemented to increase Year 3 and Year 4 Indigenous students' scientific inquiry skills through a student-centred contextual programme. The programme is a university–school–industry partnership and centres around connections to the land and the sea.

Another possible future direction is in the hydrogen and clean energy area. Gladstone is fast becoming Queensland's energy hub with many projects around this sector recently announced. In 2021, CQUniversity employed a Professor of Hydrogen and Clean Energy to develop a Hydrogen Research Centre, and the building of a School of Manufacturing concluded in 2022. This year a report conducted by Questacon, a national science organisation in 2019, found that STEM Central is core to the relationships and activity in the Gladstone local community. Figure 8.2 shows the network of STEM connections across Gladstone and illustrates this central position that STEM Central holds.

The projects discussed previously provide further opportunities for STEM Central to lead the education of schools and the wider community in partnership with industry.

As with any partnership, sustainability is a future consideration. Often when the key driver moves on, projects tend to lose momentum. STEM education in Gladstone has attracted attention from the Queensland State Government by providing funding through the Queensland Office of the Chief Scientist for a Partner Up Queensland Science and Innovation network coordinator. In addition, the establishment of a STEM Hub network several years ago provides for the continuation of the programmes and partnerships in this regional location. For STEM Central, sustainability is being addressed through the development of a handbook or user manual for

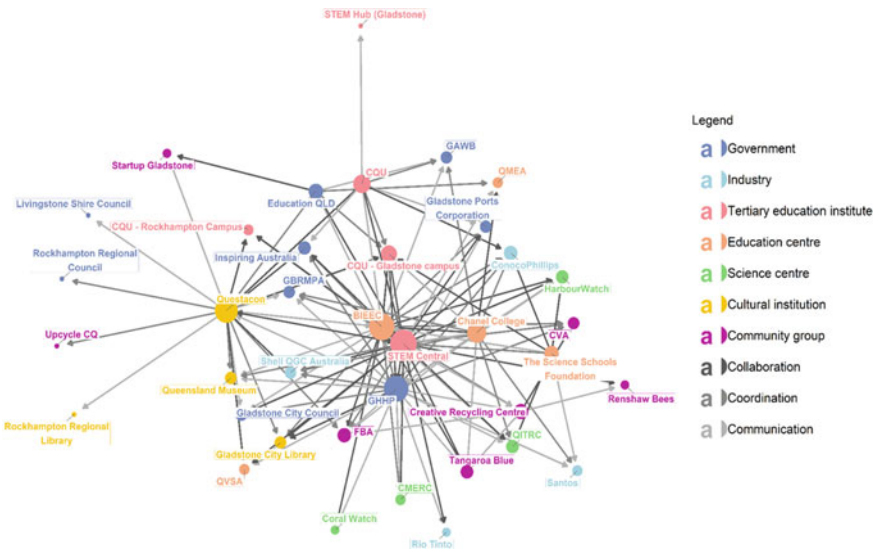

Fig. 8.2 Network of STEM connections across Gladstone (Questacon, 2022)

the space and resources as well as providing information sessions where potential users have the opportunity to be immersed in some of the programmes, resources, and networking opportunities. Utilising a community of practice model by not only showing people how the space and resources can be used but also inviting people to contribute to the development by using their imagination for their own contexts increases the outreach and outcomes of partnerships both vertically and horizontally.

Conclusion

The STEM crisis involves a shortage of students—the next generation, who will be responsible for our futures—studying Science, Technology, Engineering, and Mathematics. Intervention to stimulate interest and capacity for students to acquire the necessary aptitudes is urgently needed. Investment into Science, Technology, Engineering, and Mathematics (STEM) education and research has been recognised as critical to the future success and growth of the country as STEM is vital to all aspects of the nation's growth. There is substantial international and national research that has reinforced the requirement for investment in STEM education and research. STEM education must be relevant, engaging, and innovative to ensure that future generations are well equipped to face an increasingly competitive global economy as new technologies and industries emerge. In addition to the National STEM organisations, visits from local community groups and education providers such as local playgroups, early childhood centres, disability groups and school holiday programme providers reflect the ways in which this novel school–university–industry partnership is succeeding in not only responding to policy requirements but by also providing such groups with a unique opportunity of free access to a contemporary STEM facility and resources. Groups that have attended STEM Central have expressed their appreciation at being able to access such resources and programmes locally and the opportunities that it provides for their clients, students, families to understand STEM concepts through hands-on activities. Through university–school–industry partnerships, STEM Central is providing a 'place, space, and face' for STEM education in the Gladstone region.

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Chapter 9
In-Service Teacher Preparation for Entrepreneurship Education in Secondary Schools: A University and Rio De Janeiro State Department of Education Partnership

Sandra R. H. Mariano, Joysi Moraes, and Robson Moreira Cunha

Introduction

In Bahia (Salvador), in 1950, Anísio Teixeira–a well-known Brazilian educator whose work was strongly influenced by the ideas of John Dewey–created the Carneiro Ribeiro Educational Center (better known as the Escola Parque) in Liberdade, one of the most populous and poorest neighborhoods in Salvador. In the state of Rio de Janeiro, inspired by the establishment of Escola Parque, Darcy Ribeiro who was vice-governor of the state (1983–1987) created, planned and directed the introduction of 500 full-time Public Education Centers (CIEPs), located in the state's poorest regions. However, as often occurs in Brazil, the installation of the CIEPs, being a short-term policy that only lasted the term of the elected government term, rather than a state policy that remains beyond an specific elected government, was discontinued with the departure of Darcy Ribeiro from the state government. Still, not everything was in vain, as full-time education was included in the 1988 Constitution, in the Law of Guidelines and Bases for National Education (LDB). Nonetheless, it was only in 2014, with the approval of the National Education Plan, that full-time education officially became a goal to be achieved.

In 2016, the Brazilian government approved a set of reforms aimed at improving the quality of secondary education (around 8,300,000 students aged 15–17 years.). Two guidelines brought changes that had an impact on Brazilian education: (i) the

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progressive transformation of part-time schools into full-time schools, and (ii) the definition of a common core curriculum for the entire country (Brasil, 2017a, 2017b).

Extending the length of the school day became an important element in the implementation of the new national common core curriculum. Full-time education had only become a topic of debate among public policy makers in Brazil in the mid-twentieth century. However, the responsibility for deciding policy on this matter was left with the state governments, meaning there was no national public policy. In part-time schools, students stay at least four hours a day in school, whereas in full-time schools, students spend seven hours or more a day in school. In fact, of the 27 Brazilian states, only two introduced full-time schools before the 1990s, and in 2021, only 15% of Brazilian public schools were full-time (Todos pela Educação, 2021).

In the state of Rio de Janeiro, the introduction of full-time secondary schools was approved by the State Council of Education in 2014 (Rio de Janeiro, 2014). To this end, the Rio de Janeiro State Department of Education (SEEDUC-RJ) developed a curriculum centered on youth, with the aim of improving the quality of public secondary education and overcoming the failure typical of this level of education in Brazil. Educational inequality in Brazil is still extensive and strongly related to family income. Despite public policies and state and federal programs implemented over the last decade, there are still huge differences in learning outcomes, academic performance, along with the issues of absenteeism and dropout rates between public and private schools. Studies show that rather than providing for the reduction of inequalities, the Brazilian educational system, especially secondary education, has been seen to reproduce social inequalities (Plassa & Cunha, 2019; Raizer & Caregnato, 2019; Soares et al., 2015; Souza & Araújo, 2020; Sposito et al., 2018).

To access federal government funding, in 2017, the state of Rio de Janeiro submitted a proposal to the Ministry of Education (MEC) for full-time secondary education. This was based on the curriculum being centered on youth while including education for entrepreneurship as a differential feature in the curriculum. The SEEDUC-RJ sees "entrepreneurship as a movement to insert the student into the world of work, in which creativity is applied to transform personal and social reality, aiming to seek solutions and achieve goals through the perception and use of opportunities" (Rio de Janeiro, 2017).

This time, to ensure the introduction of full-time schools, the federal government created a Program to Promote Full-Time Secondary Schools (henceforth, "Program") and provided finance to the states who are responsible for offering free public education K–10 to K–12. The funding has been guaranteed over 10 years for participating states, and should be invested in implementing the new curriculum, improving infrastructure and teacher training. Initially, the MEC approved funding for implementation of the proposed new curriculum in 37 schools located in challenging contexts. To date (2021), 93 schools have been included in the Program. One of the main challenges faced by the schools implementing full-time secondary education and including entrepreneurship education is the training of in-service teachers able to teach the curriculum. The solution was to develop a university and the Rio de

Janeiro State Department of Education (SEEDUC-RJ) partnership with the objective of building customized training for the teachers at these 93 schools. Thus, in this chapter, we present the partnership established between the Fluminense Federal University (UFF) Department of Entrepreneurship and Management and the Rio de Janeiro State Department of Education SEEDUC-RJ. This UFF-SEEDUC-RJ partnership, financed with resources from the MEC, undertaken specifically to respond to the complex needs of the population, bringing together policy makers, 93 schools and the main university in the country. Additionally, we outline the background to the formation of the partnership, which involves the reform of secondary education in Brazil; the conditions that enabled the partnership between the university and SEEDUC-RJ; and the model of the partnership established between the UFF and SEEDUC-RJ, which goes beyond teacher training. Finally, we analyze the partnership model adopted and the main challenges faced in ensuring its successful implementation.

Background to the Partnership

It is important to point out a priori basic education in Brazil was structured as a coordinated and integrated system: the states were responsible for secondary education (K–10 to K–12) and the municipalities were responsible for elementary and early childhood education. It is the federal government's role to coordinate national public policies and finance the policies it guides. The federal government's Policy for Encouraging the Introduction of Full-Time Secondary Schools aims to support the expansion of the provision of full-time secondary education in the state public networks and the Federal District through the transfer of resources to the State and District Education Secretariats (SEE) participating in the Program and developing it, in accordance with the guidelines and criteria of MEC decree n. 727/2017 (Brasil, 2017a, 2017b). The Program will run for ten years, and provide resources for the implementation, monitoring and measuring of results achieved by the schools. This is one of the main educational public policies carried out by the MEC and favors school units in challenging contexts, where the students are subject to greater socioeconomic vulnerability. The Program is being gradually introduced and was conceived to ensure the achievement of the goals set out in the National Education Plan (PNE), one of which is to serve at least 25% of full-time students by 2024. In 2017, 24 states submitted work plans and nominated schools to participate in the Program. The states with the highest number of approved schools were São Paulo (63), Ceará (44) and Rio de Janeiro (38). Across 13 states, all the following schools that requested funding were approved: Ceará, Paraíba, Piauí, Mato Grosso, Rio Grande do Sul, Acre, Amazonas, Tocantins, Rondônia, Bahia, Sergipe, Maranhão and Roraima. Only three units did not submit proposals: the states of Amapá, Paraná and the Federal District. In 2020, the MEC offered the state education departments the opportunity to include new schools in the Program. Once the states submit work plans and nominates schools to participate in the Program, the Basic Education Secretariat of the Ministry of

Education (SEB/MEC) analyses the implementation plan and calculates the level of support to be transferred to the State Education Secretariat requesting resources. This financial support considers the number of students enrolled in full-time secondary education in the schools included in the implementation plan. Currently, the federal government provides BRL 2000 (USD $400) per enrolled student. In the Program, there are resources for costing and capital expenses. The capital resources can be used in the construction of facilities, understood as interventions that increase the constructed area of the school, add value or completely change the intended use of the facility, which requires remodeling. They can be used to purchase equipment and durable goods. Funding resources can be used for the remuneration and training of education professionals, acquisition of teaching materials and the maintenance and conservation of facilities and equipment.

Within this context, where the federal government finances the states and allows the use of resources for the training of education professionals, the university–Rio de Janeiro State Department of Education partnership, namely the UFF-SEEDUC-RJ, was established. As the Department of Entrepreneurship and Management of the UFF has the mission of providing entrepreneurship education, its team is permanently attentive, participating in municipal, state, national and international discussion forums focusing on this topic, in both basic and higher education. This active participation has increasingly enabled the interaction between the Department of Entrepreneurship and Management at the UFF and the various representatives and subjects of basic education in the state of Rio de Janeiro.

Background to the Partnership Between SEEDUC-RJ and UFF

The UFF and the SEEDUC-RJ has a long history of successful collaboration with various school-university partnership projects dating back over the last decade. From 2012 to 2018, the UFF trained 1,036 professionals from the SEEDUC-RJ in a training program for in-service school directors, financed by the Rio de Janeiro Federation of Industries. Systematic assessments show that more than 90% of the course participants who completed the training were very satisfied with the program and 100% of the course participants would recommend it to colleagues. The training program adopted an entrepreneurial approach that includes content related to leadership and school management with literature that is internationally recognized (Hallinger & Kovačević, 2019). The adopted pedagogical approach differs from the traditional Brazilian training offered by the Faculties of Education, because the construction of each course offered by the Department of Entrepreneurship and Management at the UFF is based on a Freirean perspective. For Freire (1996), the learning process is integrated into life itself, rather than separated from it. Therefore, the student needs to participate in defining their own learning objectives, which need to make sense to them, in their reality. This is especially in situations where the training process

takes place in service. Rather than being a passive recipient of the knowledge transmitted by the educator, the student already has experiences that the training program needs to consider. In other words, it is impossible to develop a training program for schoolteachers/managers without considering their knowledge. This seeks to respect Freire's belief that teaching requires respect for the knowledge of the students (Freire, 2005).

Thus, the courses proposed to the SEEDUC-RJ, by the Department of Entrepreneurship and Management at the UFF, included interviews and discussions with representatives or with a sample of students from the course itself. The aim of conducting interviews and discussions with the course participants, or a representative sample of such, is to know their reality to associate it with the disciplines and content. At the same time, it is hoped to avoid any cultural invasion, characterized as an anti-dialogical action, a situation in which content is simply transferred from one subject to another, while only reflecting the worldview of the person transferring it (Freire, 1983). Instead, the Department of Entrepreneurship and Management at the UFF proposes that the courses arise from the reflection of the present situation and that the syllabus be organized based on a dialogue between the educators and students (Freire, 1972). For this course, 15 books (about entrepreneurship, management and education) were created, the content and examples of which are based on organizational practices and the contexts of the school and include interviews and discussions with representatives or a sample of students from the course itself. This aligns with the Freirean perspective. Thus, the Department of Entrepreneurship and Management at UFF does not merely provide technical assistance, but a partnership, association and an evaluation of university–Rio de Janeiro State Department of Education experiences. These relationships are only possible through dialogue because it is through dialogue that people build collaborative practices and can transform themselves, organizations and organizational processes, and the world (Freire, 1972). Over the years the partnership has existed, the interaction between the professionals at the UFF and SEEDUC-RJ has intensified. This relationship allowed for academic research and other courses to be carried out, such as leadership training for the SEEDUC-RJ superintendents, funded by SEEDUC-RJ itself, and directly for high school students, funded by private capital and non-governmental organizations. The UFF-SEEDUC-RJ approach has broadened the knowledge of professionals from both institutions and made it possible to propose and jointly develop new projects.

In 2018, the Department of Entrepreneurship and Management at the UFF signed an Academic Agreement with the SEEDUC-RJ to develop the Entrepreneurship Education Project for regular high school youth, financed by the UFF itself and by the non-governmental organization (REAME), which operates in the city of São Gonçalo, located in the metropolitan region of the state of Rio de Janeiro. The project involved teaching and research activities and sought to help develop the skills required to identify opportunities, develop a business, take risks, act creatively and take initiative using the resources available to the high school students. The program was introduced into three schools in challenging contexts in the region and offered a course called *Empreende Jovem Fluminense* to 60 students, 20 from

each school, for 12 months. This course was perceived as an alternative extracurricular educational strategy, as it meets the assumptions of the entrepreneurship track, proposed by the National Common Core Curriculum. It intended to promote an increasing level of school engagement, which could contribute to reducing the dropout rate of young people aged between 15 and 17 years. Five customized books were prepared for students, with the appropriate language and examples that are part of their daily life. These books (*Entrepreneurship Skills*, *Digital Marketing*, *Business Modeling*, *Small Business Finance* and *Final Project*) were written in co-authorship with undergraduate students in the Management Processes–Entrepreneurship course at the UFF. They included characters, created by the Department's own work team, who communicate with the students and develop throughout the chapters. The classes were in person and taught by teaching staff from the Department of Entrepreneurship and Management, every 15 days, on the UFF Campus, and included the same undergraduate students as assistants.

The course received a positive response from the stakeholders, including the students, teachers, school principals and parents. The results showed it contributed toward the development of the students' non-cognitive skills (Modesto, 2019). According to Lackéus (2015), these skills significantly impact academic performance and future results in the labor market, as they facilitate organization, creativity, proactivity and self-awareness, among other elements. The students found the course contributed greatly toward the development of a broad range of entrepreneurship skills so that individuals were able to generate value for society through initiatives that are not restricted to the creation of companies. The research also showed that teachers, school principals and parents noticed changes in the behavior of the young people, such as those with inappropriate behavior at school developed more self-control and became more aware of the importance of school; others started to participate more in classes and interact better with teachers, managers and classmates; and some students started to develop more initiative, self-confidence and a sense of organization and to work in teams (Modesto, 2019).

The *Empreende Jovem Fluminense* course was then adapted and implemented for elementary school students and was called *Empreende Jovem Fluminense*–First Steps, for students in the ninth year of elementary school, from municipal schools partnered with REAME. Customized work modules, comprising a didactic resource called Young Entrepreneur–First Steps, were built for the students, with appropriate language and characters that interact with the students and have similar everyday problems.

Currently, the Department of Entrepreneurship and Management at the UFF has been looking for ways to make the UFF-SEEDUC-RJ partnership activities provide a closer long-term relationship between undergraduate and high school students. One possibility is to develop outreach activities for undergraduates, based on the Ministry of Education's *Resolution No. 7*, from December 18, 2018. This Resolution deals with the institutional provision and compliance of at least 10% of the total student curricular workload of undergraduate courses for extension activities, as these should be part of the course curriculum.

The UFF-SEEDUC-RJ Partnership Model

In early 2019, due to the positive results obtained with the three previous partnership programs (the in-service school directors training program, financed by the Rio de Janeiro Federation of Industries; the SEEDUC superintendents leadership training, financed by the SEEDUC; and of the Entrepreneurship Education Project for High School Pupils, financed by the UFF and the NGO REAME), representatives from the Department of Entrepreneurship and Management at the UFF sought out the newly appointed Secretary of Education to present a proposal for a strategy for entrepreneurship education in Rio de Janeiro sigh schools". The proposal involved five central objectives: (1) to develop an entrepreneurship education strategy for high school students in the state of Rio de Janeiro; (2) to train in-service teachers for entrepreneurship education in high school; (3) to form an education network for entrepreneurship in the state of Rio de Janeiro; (4) design customized teaching material for the high school teachers; and (5) carry out research on entrepreneurship education for young people.

The strategy was presented and discussed at a meeting held on March 14, 2019, with the executive sub-secretary for planning and strategic actions and the superintendent of human and professional management of the SEEDUC-RJ. At that time, the proposal was perceived as relevant and aligned with the needs of the SEEDUC-RJ, as 93 schools in the state of Rio de Janeiro had already joined the Federal Government-funded Full-Time High School Support Program. Teachers at these 93 schools should appropriate skills for teaching entrepreneurship and incorporate active learning methodologies into their pedagogical practice.

From the point of view of the Ministry of Education, improving basic education involves renovating teaching methodologies. Learning must have meaning for the student and reflect their reality and context. This reinforces the idea that thinking about education nowadays implies appropriating the best teaching–learning methodologies, as they can help awaken student interest in learning school content and improve student performance, and hence, their academic results (Bloomer Green et al., 2018; Gleason et al., 2011; Hodges, 2020; Kane, 2004; Keenan & Fontaine, 2012; Kilburn et al., 2014; Strobel & Van Barneveld, 2009; Vergara et al., 2020). It should be noted that the characteristics of the so-called active learning methodologies, which consider the reality, context and knowledge of students and perceive them as an active subject of their learning, were already in Paulo Freire's early writings (1972, 1974, 1996).

It is important that, in 2019, the SEEDUC-RJ was interested in the provision of "Entrepreneurship Education Strategy in Rio de Janeiro High Schools", as it needed to train teachers from the 93 schools that joined the support program for full-time high schools that guaranteed federal government resources for its implementation. The UFF committed to providing a pilot program for Teacher Training in Entrepreneurship and Management for High Schools, with funding from the university itself. The pilot program had 180 h, used a blended methodology, combined face-to-face and online sessions, and trained 40 teachers who were already working

with entrepreneurship disciplines in high school. The training was carried out under the supervision of representatives of the SEEDUC-RJ, at least three supervisors in each class taught by professors from the Department of Entrepreneurship and Management at the UFF. Upon completion, the participants and supervisors positively assessed the training, which motivated the continuation of conversations with the SEEDUC-RJ to implement the proposal discussed in March 2019.

However, notably, the contract to implement the Entrepreneurship Program in High Schools was only signed by the UFF and SEEDUC-RJ in December 2020, during the COVID-19 pandemic. Almost two years elapsed between the presentation of the proposal for the "Entrepreneurship Education Strategy in Rio de Janeiro High Schools" and the signing of the UFF-SEEDUC-RJ partnership contract. During which there were three management changes in the Rio de Janeiro State Department of Education (SEEDUC-RJ). This instability in the SEEDUC-RJ leadership impacted the progress of actions and the implementation of the curricular proposal. With each new change, new challenges arose for the achievement of the project. The challenges included realignment between the teams but also in the original proposal, since changes in management in public administration in Brazil usually make the actions of the previous management that were already in progress unfeasible. However, as the UFF-SEEDUC-RJ partnership has achieved excellent results for both organizations, negotiations were maintained and the UFF made the adjustments requested by each new SEEDUC-RJ team that took charge.

Since 2021, 10 books are being produced, based on the same Freirean perspective, for teachers who work in the entrepreneurship itinerary in high school. That is, respecting the students' knowledge and developing propositions based on a dialogic action. A dialogic education is also developed; that is, a teaching–learning relationship based on dialogue, on the interaction between subjects. This dialogic relationship allows the student to problematize the reality in which they are inserted, reflecting on the issues surrounding them. At the same time, the experience that a student has accumulated in the social context in which they live and/or work is essential for the creation of knowledge that can be systematized and explained (Freire, 1983). In the perspective adopted by the Department of Entrepreneurship and Management at UFF, the teaching–learning relationship aims to create possibilities for the production or reconstruction of knowledge (Freire, 1996). This dynamic of educational activity has allowed the Department of Entrepreneurship and Management to maintain the long-term partnership with the UFF-SEEDUC-RJ. This is because each new contract or cooperation agreement is configured as a living, organic and unique process, which needs to be built in a dialogical relationship with students.

Analysis of the UFF and SEEDUC-RJ Partnership Model and the Challenges for Its Successful Implementation

The UFF-SEEDUC-RJ partnership is a public-public partnership between a federal government unit (UFF) and a state unit (SEEDUC-RJ), the objective of which is to combine efforts to improve the quality of public services while ensuring a better relationship cost benefit. The coordination of the activities established in this type of partnership, to ensure successful implementation, the services must belong to the two public organizations that have established a contractual relationship for the provision of services between them (Dalmo et al., 2018; Fernandes et al., 2020; Silvestre et al., 2018, 2019). Public-public partnerships are less criticized by Brazilian society because they avoid the mistrust surrounding public–private partnerships arising from past and current cases, in the midst of the Covid-19 pandemic, which were used for corrupt practices. However, in Brazil, over the last few decades, public–private partnerships have been increasingly used as a means of providing services that are the responsibility of the state, including in public basic education, which serves about 85% of the enrolled students.

In Brazil, a public–private partnership is understood to involve a medium to long-term service provision contract (from 5 to 35 years) signed by the Public Administration, the value of which is not less than 20 million Reais (Brazilian currency, approximately USD $400) while the execution of contracts whose sole purpose is the supply of labor, equipment or execution of public works is prohibited (Brasil, 2021). These partnerships in public schools have been criticized by Brazilian researchers (Apple, 2013; Caetano, 2017; Lopes, 2019; Martins et al., 2020). According to some scholars, private organizations submit public schools to new challenges, one of the main ones being the use of textbooks produced that fail to reflect the real circumstances of students, who are usually inserted in challenging contexts. Thus, instead of facilitating learning, the textbook becomes another obstacle to be faced and overcome, since they do not dialogue with the students' reality; the social issues present in their context. Thus, Brazilian society and civil society organizations that represent it have adopted new guidelines: the books used in public schools need to speak to the students' reality, enabling them to develop reflections based on themes related to their context; and the teaching–learning relationships need to be based on the reality in which schools and the school community find themselves.

These, too, have been the main criticisms regarding the training of teachers and school leaders; training that fails to consider the students, their context and experiences, in which the content is sterile. It is, essentially, what Freire (1972) sees as "banking education", that is, when the educators' concern is to fill students' heads with knowledge, without considering their knowledge and experience. This situation is more serious when the students are already teachers, as in the case in question; that is, teachers undergoing in-service training, a relatively common situation in Brazil. In other words, banking education denies the student the right to speak; it denies dialogue. The educator is the one who speaks, who holds the knowledge, who disciplines, while the students only listen to the word docilely; they are taught and

disciplined (Freire, 2005). The educator will "deposit" (hence, the idea of "banking") the content in the students' heads, as if they were containers to be filled and, at the time of assessment, will check whether the contents were understood or not (alluding to the "withdrawal" of what was previously deposited).

We emphasize that the university–Rio de Janeiro State Department of Education partnership has been built in a dialogic way and has obtained the following main results:

1. High completion rates of training courses.
2. Training of principals, before training teachers. This type of strategy enables the awareness of principals that it is also necessary to train teachers to ensure alignment between organizational policies and practices.
3. Systematic and monthly evaluations of the training program by the course participants.
4. Assessment at the end of the training program by course participants who have completed the training.
5. Adjustments in the structure and program of the course, based on the feedback and evaluations of the course participants.
6. More than 90% of course participants who completed the training were very satisfied with the program and 100% of course participants would recommend it to their colleagues.
7. Generation of customized content for each training course, as they are built after defining the training focus and address the specific challenges of the school and SEEDUC-RJ.
8. Teachers in training evaluate textbooks (custom content), which can be adjusted to the learning needs and context of Brazilian public schools.
9. Visits to schools to understand the context, needs and challenges of course participants bring the university closer to the school and allow the university to get to know the reality of the students at the school (K10–K12).
10. As a result of this approach, the university has already made courses available directly to students (K10–K12).
11. Establish relationships of trust between the Rio de Janeiro State Department of Education make it possible to monitor the impact of teacher training on their classroom practices.
12. Monitoring the impact of teacher education on their classroom practices allows for adjustments for the continuing education of teachers.
13. The partnership and proximity with SEEDUC-RJ and with school leaders makes it possible to understand the system, its needs, and challenges and, therefore, propose actions to solve and reduce problems.
14. In-service training of all state school principals.

The university–Rio de Janeiro State Department of Education partnership, in a dialogical way, has been one of the main sources of success, as each training course and its corresponding content are dialogically constructed and, therefore, grounded on the dialogue established between educators and students. In this way, students perceive themselves and their circumstances in each book made for each subject of

the course. Concepts are explained from the student's reality and examples are built considering their schools and school community.

While this is the main differential provided by the training programs promoted by the UFF for the SEEDUC-RJ, it is also its main challenge. After signing the partnership contract, the UFF professors began, almost immediately, to establish dialogues with at least a sample of those who will be the future students; that is, the target audience of the training course. This involves visits to schools, semi-structured interviews with teachers (future students) and school leaders, the systematization of interviews, debates between teachers who will prepare the contents, defining each chapter of each book, and testing the content with the first class (which is currently happening, now in 2021).

A trust-based relationship is a *sine qua non* for the existence of the UFF and SEEDUC-RJ partnership model. One of the first actions necessary for the execution of the contract is direct access to the SEEDUC-RJ teachers, as no dialogic content can be built without access to the teachers. This can only occur with authorization from the SEEDUC-RJ. Teachers and leaders of SEEDUC-RJ schools only express themselves institutionally, with the appropriate authorization, including for academic research carried out by researchers for the construction of dissertations or doctoral theses.

After establishing a dialogical relationship with future learners, "speaking their language" provides a unique understanding of the context, challenges and needs that can be addressed and remedied during the training process. The educator-learner interaction allows an understanding of the context and challenges of the state education system. The relationship of trust existing in the UFF and SEEDUC-RJ partnership model is also a result of successful and very well assessed previous interactions, of the age and UFF experience of the UFF (founded December 18, 1960), in addition to its being one of the largest free public universities in Brazil, in number of student enrollments, completely financed by the federal government.

Final Remarks

This chapter detailed the university–Rio de Janeiro State Department of Education (SEEDUC-RJ) partnership model established for the development of an in-service teacher training program in Brazil. The on-screen training, at the *Lato* Sensu (certificate) specialization level, aimed to develop teachers' skills to teach entrepreneurship and management content to high school students (K10–K12) from 93 schools in the Rio de Janeiro state network. These schools received funds from the federal government, through the Program to Promote the Implementation of Full-Time High Schools, which aimed to expand the class day, from 4 h/day per day (part-time) to 7 h/daily classes (full-time) and the implementation of a curriculum centered on youth, structured around entrepreneurship education.

The following provide some insights into the key learnings that have emerged throughout the UFF-SEEDUC-RJ partnership.

1. The adoption of the Freirean perspective in implementing the UFF-SEEDUC-RJ partnership is what makes this partnership model unique. Programs, contents, structure and processes are developed based on dialogue with SEEDUC-RJ and, mainly, with course participants.
2. Long-term partnerships makes it possible to monitor the progress of schools under the responsibility of SEEDUC-RJ.
3. Long-term partnerships enables systematic evaluation and monitoring of training results in classroom practices.
4. Long-term partnerships makes it possible to develop customized programs tailored to the needs of teachers.
5. Offering a Pilot Program for Teacher Training, used a blended methodology, combined face-to-face and online sessions, with a kind of pre-test, allows adjustments to the needs of course participants and SEEDUC-RJ.
6. The training courses carried out by the UFF-SEEDUC-RJ partnership have been very well rated by the students. The average student satisfaction with the course is over 90% and 100% of the course participants would recommend it to colleagues.
7. UFF sends monthly reports to SEEDUC-RJ on the follow-up of course participants.
8. The UFF-SEEDUC-RJ partnership is based on the trust established between the institutions as a result of previous and successful work and the dialogic methodology adopted for the construction of training programs.

The partnership was established between the Fluminense Federal University (UFF), represented by the Department of Entrepreneurship, and the Rio de Janeiro State Department of Education (SEEDUC-RJ), responsible for administering schools receiving federal funds to finance secondary education reforms in Brazil. Notably, in the last 10 years, the UFF has been developing together with schools in Rio de Janeiro and in partnership with SEEDUC-RJ, a set of activities. These activities include the training of school leaders and development of superintendents to the creation and application of methodologies for entrepreneurship education in basic education, based on Freirean principles both for defining the content and conducting the training. The adoption of the Freirean perspective in implementing the UFF-SEEDUC-RJ partnership is what makes this partnership model unique. It demands, however, that the UFF academic staff have to continually build content based on the experiences, needs and contexts of the students, in each new training course. Nevertheless, it is exactly this feature that allows the students to engage with the content and facilitate their learning process. As a result, in assessments the training courses carried out by the UFF-SEEDUC-RJ partnership have been very well rated by the students.

The partnership was also strengthened due to the national recognition that the Department of Entrepreneurship at UFF received for its ability to fulfill the mission of providing education for entrepreneurship. The results of the pilot program for “High School Teacher Training in Entrepreneurship and Management” also facilitated close contact between the UFF and SEEDUC-RJ teachers who already work in teaching entrepreneurship in schools, which provided greater knowledge about the context.

The SEEDUC-RJ teachers who participated in this pilot training contributed their experience and vision to the development of books with specific content for the training of teachers in the 93 schools.

The Freirean perspective, adopted by the Department of Entrepreneurship and Management at the UFF to build a training program for SEEDUC-RJ teachers, means their practice is not limited to mere technical assistance, since the actions extend to an effective partnership that involves commitment to implemented actions and the assessment of UFF-SEEDUC-RJ experiences. Such relationships are only possible through dialogue, because it is through dialogue that people build collaborative practices and can transform themselves, organizations and organizational processes, and the world (Freire, 1972).

The establishment of public-public partnerships, like that of the UFF-SEEDUC-RJ, as discussed in this chapter, involve considerable challenges for their implementation, particularly those resulting from the uncertainties generated by changes in the administration in the SEEDUC-RJ. In this case, from the moment the UFF presented SEEDUC-RJ with a proposal for a "Strategy for the Implementation of Entrepreneurship Education" in 2018, until the first training session in the teacher training course on entrepreneurship and management, in June 2021, the position of Secretary of State for Education of Rio de Janeiro had three different occupants. With each change in management, the partnership faced new challenges, not only of realignment between the teams, but also of changes in the original proposal, since new heads of public administration in Brazil, typically, do not follow the ongoing actions of their predecessors. In this case, there was no change in the original proposal and the project proceeded as initially planned. The UFF-SEEDUC-RJ partnership in question is also based on the trust established between the institutions as a result of previous and successful work, the dialogic methodology adopted for the construction of training programs and the capacity to adapt, and the dialogue established at each change in the management of the SEEDUC-RJ.

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Chapter 10
Integrating Initial Teacher Education and Induction in Scotland

Lauren Boath, Jill Shimi, and Louise Campbell

Becoming a Qualified Teacher in Scotland: An Innovative Route

Beginning in academic session 2017/18, the Scottish Government supported a range of new or 'alternative' routes into teaching in Scotland, offered through initial teacher education (ITE) in universities (Scottish Government, 2020). With a focus on attracting teachers in shortage areas, one of the models funded for a three-year pilot beginning in January 2018 was a route into teaching in secondary schools (i.e. teaching in schools with young people aged 11–18) in Chemistry, Computing, Home Economics, Mathematics or Physics, offered by the University of Dundee. This Postgraduate Certificate in Education (PGCE) (secondary) with supported induction route (the 'SIR') was founded on multi-layered partnership across the development and implementation: with Scottish Government and the General Teaching Council for Scotland (GTCS), local authorities and the schools and teachers within them, and with former students whose voices shaped the SIR and its implementation. The research from which this chapter draws was undertaken by two of the authors who were involved in the design, accreditation and implementation of the SIR programme at the University of Dundee.

The SIR combined a PGCE (secondary) with the GTCS Teacher Induction Scheme (TIS) (GTCS, 2021a). The most common route into secondary teaching in Scotland requires a professional graduate diploma in education (commonly called the PGDE) at a level equivalent to an undergraduate Honours degree (Scottish Credit

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and Qualifications Framework (SCQF) level 10/ European Qualifications Framework (EQF) level 6) or a postgraduate equivalent to Masters (SCQF level 11/EQF level 7). These professional graduate or postgraduate courses are normally 36 weeks in length and those who successfully complete this ITE phase, including achievement of the GTCS Standard for Provisional Registration (SPR) (GTCS, 2021c) can progress to the GTCS Teacher Induction Scheme (TIS), also known as the induction year or probationary phase, paid at point 0 of the salary scale for teachers in Scotland (£28,113 p.a. from 1 January 2022; £31, 584 p.a. from April 2023). For the induction year, allocation to an employing local authority is undertaken by the GTCS from a choice of five made by the individual during the year in initial teacher education (ITE); school allocation is undertaken by the employing local authority.

Successful completion of the induction year leads to achievement of the GTCS Standard for Full Registration (SFR) (GTCS, 2021b) allowing the fully registered teacher to apply for teaching posts in schools. An alternative 'flexible' route is offered; individuals can gather evidence of achievement of the SFR through employment in a school, this employment being gained by the individual rather than through the GTCS allocation system. This can include part-time employment or employment in an independent school (i.e. one not maintained by a local authority; such schools account for just under 4% of the Scottish pupil population (Scottish Council of Independent Schools, 2023).

The SIR drew on a wide range of research evidence about teaching and teacher education including exploration of a greater degree of integration between the university and school-based element of ITE (Allen & Wright, 2014; Dewhurst & McMurtry, 2006; Hagger et al., 2011). There was recognition of the challenges of pre-service teachers' transition into employment (Du Plessis & Sunde, 2017; Shayshon & Popper-Giveon, 2017), including their preparedness for the reality of undertaking the role full-time. The SIR provided a greater level of support through transitions not normally encountered within a traditional university teacher education programme, by incorporating structured support from university-based teacher educators throughout the period traditionally undertaken as the stand-alone probationary experience. For the first time, the University of Dundee worked in partnership with teachers, schools and local authorities to support beginning teachers through the achievement of the SFR. This provided the opportunity for pre-service teachers to experience, while supported through the SIR, end of term processes, processes relating to the Scottish Qualification Agency and National Qualifications, beginnings of terms, building relationships with new classes and with learners new to the school, and timetable change as learners progress from one academic session to the next.

Partnership in Funding and Development of the SIR

Traditional forms of teacher education have articulated 'partnership' as a descriptor to sum up the combined forces of campus-based and school-based learning, though in many cases, school-university partnership constitutes parties working in separate

ways with minimal communication, linked only by the pre-service teacher's presence in both learning contexts.

The SIR, which ran as a pilot for a three-year period, began with its first intake of students in January 2018. Deliberate and active partnerships to plan and cogenerate pre-service teachers' learning experiences is an area that is attracting increasing interest (McGee, 2017; Mutemeri & Chetty, 2011; Willis et al., 2018) as a means of supporting the development of the competencies desired of new teachers in the twenty-first century. This 52-week Masters-level integrated SIR was developed through such deliberate and active school-university partnership with four local authorities: Angus Council; Dundee City Council; Fife Council; and Perth & Kinross Council; alongside wider research and literature on teacher education and teacher education programmes globally. Building upon the strengths of the ITE offerings at the University of Dundee and the TIS programs offered within these four local authorities, there was a focus in designing the SIR on mitigating or overcoming some of the identified barriers to accessing and succeeding in teacher education.

Key to this was the award of Scottish Government funding without which such innovation could not have occurred. Funding was awarded to develop and pilot the SIR as an additional route, alongside the traditional professional graduate programme offered by the University. The SIR model had two unique features for which further funding was required: the ability to offer financial support to those on the programme ('student-inductees'); and funding for professional learning for in-service teachers acting as school-based supporters for the student-inductees. Through Scottish Government funding, administered via the local authorities, student-inductees on the SIR received financial support equivalent to point 0 of the Scottish teachers' salary scale, monthly throughout the 52-week programme. Further funding met the fee costs for school-based supporters to participate in Master's-level learning around mentoring and coaching; this was the first time such a funded opportunity had been made available to those supporting pre-service or probationary teachers in schools.

Close partnership working with the GTCS was another key feature of the successful development and delivery of this pilot route. Addressing barriers to accessing and succeeding in teacher education required a rethink of the teacher education offering at the University of Dundee and thus partnership with the GTCS, to agree flexibility, including around the Guidelines for ITE Programmes in Scotland (General Teaching Council for Scotland, 2013). The goals of the school-university partnership were to:

- Address barriers to accessing teaching as a profession.
- Create an integrated programme through which aspiring teachers could gain full GTCS registration with University and local authority support throughout.
- Further the role of fully qualified teachers as teacher educators.

Each of the goals and the outcomes in relation to these will be explored further within this chapter.

Addressing Barriers to Joining the Profession

In the design of the SIR was an ambition to overcome identified barriers which might prevent people joining the teaching profession. There was recognition that whilst career changers could bring work and professional experience to teaching (Price, 2019), the design and funding of existing routes into teaching in Scotland may inhibit or indeed prohibit them from making this career change. Within the SIR, student-inductees undertook two blocks of school placement in a single school, the first of 18 weeks and the second of 19 weeks. This facilitated planning by those with dependents, caring responsibilities or other reasons that made placements arrangements within traditional routes, typically three separate placements of six weeks, confirmed only two to three weeks in advance of the placement start date, challenging to undertake.

While the TIS is celebrated as a world leading success (Shanks, 2020), it does present logistical challenges for some potential teachers. Those who wish to take up a place on the TIS are required to select five local authority areas in which they can be placed. In much of Scotland, this is a significant geographical area. Many of the local authorities themselves cover a large area and within the allocated local authority, the probationer can be placed in any school. The GTCS makes it clear that personal circumstances are not considered in allocating the local authority (Shanks, 2020), although a student's choice of local authority may well be influenced by family connections or childcare needs (Hulme & Menter, 2014). Thus, it was the intention to create a pathway through which beginning teachers could have certainty in their planning for achievement of the SFR.

Half of those who participated in the research relating to the SIR had been in the workplace more than 10 years since their last graduation; for 62% of participants teaching was not their first career choice since their last graduation. This indicates that the model did attract career changers. Student-inductees said that they had experienced both financial and logistical barriers in their journey to becoming a teacher:

> The cost to complete a career change. I saved up for a few years to go on the traditional course, if this course had come up sooner, I would have been able to join the profession sooner. As a parent I need to get my children into routines. The traditional course meant I would have been in three different schools…how can I prepare childcare and support for my children with these issues? (Student-inductee, cohort 1)

> I would not have been able to make this career change without the financial support and the one-year course. The year with no income of the traditional route simply would not have been possible for someone with a family and mortgage, etc. (Student-inductee, cohort 3)

Twenty-four of the 34 student-inductees who participated in the research expressed the wish to work in one of the four partner local authorities (i.e. Angus, Dundee, Fife or Perth & Kinross Councils) in the first year of employment with the remaining 10 identifying other Scottish local authorities in which they intended to seek employment. Only four of the 34 indicated that they could work in a choice of

local authorities, reflecting the restrictions on movement which potentially limit the ability to join the profession through a traditional route and the TIS.

Creating an Integrated ITE/TIS Programme

ITE is internationally regarded as underwriting teachers' professional knowledge and dispositions (Jasman, 2009; König, 2013) particularly in relation to periods of change in terms of curricula, education policy or wider social policy (see for example (Avalos & Bascopé, 2014; Ota, 2000; Sim, 2006; Ssentamu, 2014). In many contexts, university- or college-based ITE is combined with teaching practice in schools, creating a combined approach to providing pre-service teachers with the skills and knowledge they need to undertake the work of teaching. Practicum experiences are a familiar feature of teacher education programmes worldwide (Allen & Wright, 2014; Grudnoff, 2011), recognised as valuable for the opportunities they offer for immediate and tangible learning through doing. However, this immediacy presents teacher education institutions (TEIs) with a challenge. The occupational socialisation that happens within the context of practicum in schools can become a dominant force in terms of shaping pre-service teachers' pedagogical understanding, professional attitudes and practical skills (Atkinson & Delamont, 1985). While practicum allows pre-service teachers to test their knowledge and skills, the dispositions, behaviours and sensitivities TEIs seek to inspire in pre-service teachers puts them in a vulnerable position in practicum contexts, where similar perspectives may not be shared, and where the status quo may be preferable to novel thinking (Griffiths, 2013). This exposure to the strong influence of practicum experiences is likely also to play a significant role in developing pre-service teachers' thinking about curricular planning and the organisation of learning (Heywood et al., 2012). Additionally, teachers, both pre-service and in-service, find themselves torn in two by the problematic tension of needing to be compliant with the managerialist discourses at work in the school setting and the desire to forge their own way as creative, autonomous professionals (Campbell, 2019; Reeves & Drew, 2013). The social and cultural pressures brought to bear in such situations can be formatively powerful and can take a dominant place in the professional learning experiences of pre-service teachers.

Connected with these social pressures, a range of affective pressures can take precedence over the pedagogical or philosophical influences formed in TEIs, resulting in these being stifled or neglected. Some examples of these affective pressures may include a wish or need to feel a sense of belonging within the school culture (Heywood et al., 2012); the pressure of time, often managed by resorting to whatever methods are most convenient or compliant (Goepel, 2013); the apprenticeship of observation (Lortie, 1975) in which deep-rooted familiarity with particular teaching habits absorbed through childhood experiences as a pupil become natural or comfortable adult behaviours in the face of daily classroom challenges (Raymond et al., 1991); or unthinking reflex actions that are used instead of behaviours directed by more rational principles, standards or dispositions.

One of the challenges for TEIs is how best to create conditions where their pedagogical influence has the opportunity to cohere and have a sustained effect on experiences of teaching practice and the formation of pre-service teacher identity (Beauchamp & Thomas, 2009) alongside the influences of practicum. While teacher identities are arguably sites of necessary on-going transformation, pre-service learning needs to be an effective and meaningful part of pre-service teachers' professional learning experiences, with the scope for lasting impact. The SIR model is best described as aligning with the 'collaborative model' of ITE (Furlong et al., 2000 in Smith, 2010) in which collaborative work and discussions take place in schools, and between schools and HEIs. The extended practicum model of the SIR provided opportunities for much deeper relationships to be formed between the 'student-inductees' and the school-based supporters, as well as between the school-based supporters and University tutors. The funding for in-service teachers to undertake professional learning with the University provided a space in which collaborative professional discussions could take place between in-service teachers and ITE staff. What emerged here was not conflict between theory and practice, or differing stances on preparing beginning teachers, but rather a great deal of shared understanding and commonality of purpose; there were indeed similar perspectives and engagement by the in-service teachers in novel thinking around learning and teaching practice (Griffiths, 2013).

The collaboration was further strengthened by joint assessment throughout the SIR placements; the student-inductee being observed by both the University tutor and school-based supporter, with the tutor and supporter then engaging in professional dialogue about what they had observed, strengths and areas for development, and next steps. It was rare for there to be difference of opinion between the tutor and supporter, the former having observed a 'snapshot' of the student-inductee in action in the classroom, alongside their on-campus learning and on-going professional dialogue, and the latter having worked closely with the student-inductee day-to-day in school and engaged in on-going dialogue with the university through their own learning. Thus, the close partnership moves us towards a more coherent learning experience for the student-inductee through a strengthened connection with teachers supporting the student-inductees learning in school to help overcome potential fragmentation (Floden et al., 2021).

Furthering the Role of Fully Qualified Teachers as Teacher Educators

Learning to teach through practicum can be a 'challenging activity, one filled with apprehension, uncertainty and loneliness for teacher candidates' (Cochran-Smith et al., 2015). A tension exists between a view of learning to teach as developmental and taking place over a period of time and expectations of schools (Cochran-Smith et al., 2012), based on the Scottish induction year model, that those who have

completed the ITE phase are ready to demonstrate performance as an independent teacher despite having not yet achieved fully registered status. The SIR model was devised to extend the period of support and development beyond the traditional ITE phase, until fully registered status was achieved.

The model of school-university partnership between in-service and pre-service teachers within the SIR was a coteaching model (Murphy, 2016) moving from the common model in which the pre-service teacher observes for a period before taking responsibility for the class (Murphy, 2016). In the SIR design, student-inductees were matched with an appropriate school-based supporter in the relevant subject specialism. The school in which the student-inductee was placed committed to release of that school-based supporter, and to supporting the coteaching model.

Coteaching, including the three elements of coplanning, copractice and coreflection or coevaluation (Murphy, 2016; Murphy et al., 2015) is distinct from the traditional observation then solo teaching model often used in practicum. It is also distinct from 'co-teaching' models which can be wide ranging in meaning and implementation. Coteaching in this case is a model in which two or more teachers are teaching together, sharing responsibility for meeting the learning needs of students and, at the same time, learning from each other. Coteachers plan, teach and evaluate lessons together, working as collaborators on every aspect of instruction (Murphy & Scantlebury, 2010). This particular model of coteaching was chosen both as a mechanism to support the student-inductees and school-based supporters, to provide a structure for reflective practice, and to support the development of pedagogical content knowledge (Murphy et al., 2015). It provided a way to mitigate the potential for ineffective practice impacting negatively on children and young people, which can occur in the early stages of the pre-service teacher's learning journey (Murphy, 2016). This was felt to be crucial within the SIR model for two reasons. The first was the extended nature of the practicum in a single school; whilst there were benefits for the pre-service teachers of contributing to longer-term learning, feeling connected to the department and school, and having the opportunity to build positive relationships with staff and learners, there was awareness of the need to mitigate the potential for any negative impact on learning. The second reason was that student-inductees were only in the placement school Monday to Thursday of each week, with Friday dedicated to on-campus, University or local authority learning, or wider learning and independent study. Coplanning and the very close working relationship required within the coteaching model allowed for this to operate without disruption to learning in the classroom.

In its original design, the intention of the SIR programme was that the student-inductee and school-based supporter would coteach frequently in the early part of placement and continue some coteaching throughout the placement. During the placement, the student-inductee would gradually take over an increasing percentage of the school-based supporter's timetable, making space for the supporter to develop their Master's-level learning in mentoring and coaching and to continue to observe, support and challenge the student-inductee. In the first placement block, student-inductees taught only within the broad general education (BGE), i.e. young people up to the age of 14 in their third year of secondary education. In the second block,

the more experienced student-inductee's timetable included Senior Phase teaching, i.e. with young people whose learning leads to National Qualifications or other external certification. Many student-inductees and school-based supporters concentrated their coteaching in the first 6–8 weeks of the first placement with the student-inductees building experience and confidence to undertake an increasing amount of solo teaching. Many returned to the coteaching model to support the student-inductees through the change of timetable which, in Scotland, traditionally happens in May/June before the 6–7 week summer break, and again as the student-inductee entered the second placement block and experienced Senior Phase teaching for the first time.

The flexibility of the coteaching model allowed for a range of arrangements to work within the variety of participating schools. Whilst some student-inductees and school-based supporters worked within a very 'pure' model with the student-inductee only teaching classes from their school-based supporter's timetable, others taught classes on their timetable which did not belong to their own school-based supporter, either focussing their coteaching with their school-based supporter or coteaching with different teachers. Some continued to use coteaching more heavily throughout both placement blocks than others, depending on their own needs, the classes being taught, and the needs of children and young people.

At the heart of the coteaching model is relationship building between the pre- and in-service teacher, with a recognition of strengths rather than a deficit model of the student teacher (Murphy, 2016). In facilitated sessions, the school-based supporters were encouraged to explore and understand the student-inductees background, work experience and expertise that they might bring to coteaching, while the student-inductees similarly came to understand their school-based supporters' strengths and expertise within the classroom, wider school and beyond. This was particularly effective with career changing student-inductees who brought a wide range of experiences including applications in business and industry:

> My student-inductees have brought a wealth of knowledge to my subject from their initial careers that have helped to innovate some of our practice in school. We have been able to exchange information. (School-based supporter, cohort 2)

Arguably, the coteaching model addressed a need for organisational change, including new relationships and cultures (Beck & Adams, 2020), reshaping the way in which pre-service teachers were viewed and how they worked with in-service teachers. It provided a framework within which the in-service teachers role as teacher educators in the SIR programme was explicit and took place alongside the in-service teachers building relationships and undertaking their own professional learning with the University.

> As a mentor I found this experience challenging but also extremely worthwhile for my own practice. I am delighted to have been part of this programme and am excited to get back into my classroom and try all the things I have learned through my own research during this programme and from my student-inductee. (School-based supporter, cohort 1)

> I enjoyed mentoring my student, it was very rewarding seeing him 'grow' as a teacher. I learned a lot from him through his innovative use of IT/digital learning. (School-based supporter, cohort 3).

Of those who acted as school-based supporters during the three-year pilot and participated in the research, more than 60% had been in teaching for more than 10 years, and 86% for six or more years. Just over 40% gave the opportunity for professional learning as their motivation for acting as a school-based supporter; 90% agreed that coteaching had given them the opportunity to develop their practice and skills and build confidence, whilst 80% noted that they had gained new insights in practitioner enquiry and research. Just over half felt they gained new insights into curriculum guidance and requirements and meeting learners' needs:

> I have enjoyed the experience, it has made me as a practitioner question my practice, I have benefited from the reading and research the inductee has done, this has been helpful in whole school working and issues, that we should perhaps be 'up on' but aren't and current educational material is only helpful if we have the time to read and digest it! I enjoyed seeing innovative ways that the inductee chose to teach topics and how resourceful they could be. (School-based supporter, cohort 1)

Combining the coteaching model with the opportunity for school-based supporters to undertake their own professional learning, gave greater opportunity for shared vision about the learning of the student-inductees, and therefore greater opportunity for the student-inductees to succeed (Floden et al., 2021). However, offering the integrated programme was not without challenges. Within the partner authorities, many schools were keen to participate in the pilot, even more so after a successful first year. However, offering the student-inductee an appropriate level of support, mentoring and coaching required the relevant department to have sufficient staff and among those staff, an identified school-based supporter willing to undertake Master's-level study in mentoring and coaching, to develop understanding of the SIR and to provide support for a beginning teacher over a prolonged period. This was a challenge given that the SIR was recruiting in 'shortage' subjects. Not all schools offered a full programme of subjects to give an appropriate experience. For example, in computing, several schools willing to host a student-inductee did not have sufficient staff to offer the subject within the BGE and thus offer a BGE timetable for the student-inductee.

The SIR pilot recruited small numbers with around 45 students qualifying through the route during the pilot. During the second and third years of the pilot, some schools began to take multiple student-inductees, bringing on board new school-based supporters alongside existing school-based supporters, to build capacity as a 'hub' working closely with the University. Steps were made to help in-service teachers understand the SIR model, building interest in participation as school-based supporters and the opportunities offered in terms of professional learning and development. Whilst the early weeks of hosting a student-inductee were very intensive and demanding of school-based supporters, as the placement progressed, and particularly through the second block of placement, many school-based supporters reported that they missed their own teaching load, as successful student-inductees worked largely

independently with the classes. Whether an in-service teacher could, or would want to, act as a school-based supporter in consecutive years would be an issue if a model such as the SIR were to continue beyond the pilot, presenting challenges in terms of capacity for schools to accommodate student-inductees.

Understanding the Outcomes of the SIR

One of the conditions of Scottish Government funding for the SIR was independent evaluation of its implementation and first year of operation; this was submitted to the Scottish Government and GTCS in March 2019. When embarking upon the SIR, there was clear intention to undertake research to understand its implementation from a range of perspectives. There was recognition that universities increasingly involve students, including those in teacher education (Darwin, 2016), in evaluation of the experience of university and 'student satisfaction'. However, this reflects an emphasis on a neoliberal narrative—students as consumers of higher education (O'Leary & Cui, 2018). In researching the SIR, current and former students were framed as active collaborators whose voice shapes the teacher education experience (Darwin, 2020; Wilks, et al., 2019) and how we understand it.

Thus, from the outset, there was commitment to understanding former students' perspectives about 'what matters' in the beginning stages of a teacher's career, including both the ITE and TIS stages. Based on the following criteria, a number of former students were invited to join a Student Research Advisory Group (SRAG):

1. Successful completion within the last three years of the 'traditional' route in initial teacher education at the University of Dundee (i.e. the 36-week professional graduate diploma (SCQF level 10)) in secondary education in chemistry, home economics, mathematics or physics and of the GTCS TIS.
2. Minimum qualification at Honours degree level which would permit entry to the SIR.
3. Joined initial teacher education as career changers and/or with postgraduate qualifications.

The voice-related methodology underpinning this work, developed by Lundy (2007) and Lundy and McEvoy (2011), recognises the need for *shared experience*. Rather than attempting to create 'shared experience' between SRAG members through activities (see, for example, Boath, 2019), involving only former students from the most recent iterations of the programme, who had then progressed through the TIS within geographically adjacent local authorities, provided this shared experience. The contributions of the SRAG were used to develop the themes of the questionnaire and to support research participants in considering a range of perspectives (Lundy & McEvoy, 2011; Murphy et al., 2013), creating zones of proximal development for the research participants (Boath, 2019). Having piloted the developed questionnaire and finalised it for use with student-inductees, it was then used as the basis for the questionnaire for the 'school-based supporters', to explore their experiences

and perceptions of the SIR programme. Through this approach, an understanding was developed of 'what matters' to beginning teachers as they progress through ITE and the TIS, and this understanding shaped the SIR as it was implemented. Moreover, the perspectives of student-inductees and school-based supporters involved with the SIR were examined through this lens.

Where Are We Now?

Following the successful first year of implementation of the SIR, a further programme was piloted to meet the needs of remote local authorities seeking to recruit in the shortage areas of Chemistry, Computing, Home Economics, Mathematics and Physics. Supported by funding through the Attainment Scotland Fund, following a Scottish Government procurement exercise, the 18-month Postgraduate Diploma in Education with Partnership Induction Model (PIM) was adapted from the SIR to be offered in more remote local authority areas including Aberdeenshire, Argyll and Bute, Borders and Highland Councils. It introduced a further partnership element, being run by the Universities of Dundee and the Highlands and Islands. The PIM was offered for one cohort (December 2018—June 2020). The three-year pilot of the SIR concluded in March 2021, with the final cohort having their studies extended by two months because of the COVID-19 pandemic. Concurrent with the SIR and PIM, the University of Dundee offered two innovative routes into primary teaching, the 'National Learn to Teach' (LTT) and 'Rural Learn to Teach' (RLTT). Starting in January 2018, the LTT and RLTT offered the opportunity for local authority employees with appropriate degree qualifications to study part-time for a professional graduate diploma in education with placements in their employing local authority. They were able to maintain an income from their existing employment and were guaranteed a place on the TIS within that local authority. Both the LTT and RLTT came to an end in June 2021.

Compared with the common model of three six-week placements with an assessed visit from the university-based tutor, the partnership of the SIR allowed development of the possibilities for a more deeply-embedded model of partnership benefitting both students as beginning teachers, qualified teachers acting as school-based mentors and university staff working alongside them both. Qualified teachers were able to access Master's level professional learning and to benefit from closer working relationships with university-based staff. They also benefited from the opportunity to work alongside beginning teachers beyond the typical six-week window, learning with and from them. School-based mentors felt more invested in the progress and success of these beginning teachers.

University staff benefitted from the model too; they were able to spend more time with the school-based mentors, learning with and from them, building relationships and supporting them in their mentoring, coaching and support for the student-inductees. One notable observation from the deeper partnership was that the joint

assessment model could be and was successful, that school-based and university-based staff were very closely aligned in their observation and assessment of the student-inductees' development and progress as beginning teachers. This served to build confidence among the teachers as they developed greater understanding of teacher education, built on research and literature, and confidence in university-based teacher educators about their own understanding of quality learning and teaching in schools and in the appropriateness of the preparation of beginning teachers.

There is an obvious challenge then around the sustainability of such programmes set up to complement mainstream routes into teaching, to give opportunity for diversification of the student body and ultimately the teaching workforce. The models at this one institution demonstrate the value of a range of different approaches, built locally and in close partnership with the relevant local authorities and schools, to overcome barriers to the teaching profession in different geographical locations and among different groups of people. However, whilst we have explored the benefits of working in a multi-layered partnership, ultimately the diversity of routes required to meet local needs and address barriers to the profession is dependent on the availability of funding. This is not only about the mechanisms through which institutions are allocated funded places, student fees being paid for eligible students, or even financial support for students through mechanisms such as those in place for SIR and PIM student-inductees, or through bursary schemes (Scottish Government, 2019). Developing local solutions to meet local needs requires funding to enable institutions offering initial teacher education to develop and, crucially, to *sustain* the diversity of routes which, by their nature, will not necessarily recruit to the same extent and match the numbers on the 'traditional' routes into teaching.

The SIR offered a model in which there was close collaboration and coherence across the teacher education programme, bringing together the learning which takes place across campus-based experiences and practicum, a challenge for all teacher education programmes (Canrinus et al., 2017). To continue to do so, however, requires long-term investment to build and sustain capacity in the system at all levels including classroom teachers, middle and senior leaders and within local authorities. There must also be sustainable capacity within TEIs, including teacher educators and those with expertise in mentoring and coaching, to 'support the supporters' as teacher educators within schools, and to develop and support partnerships with schools and their staff and with local authorities. Prior to the Teaching Scotland's Future report (Donaldson, 2011) which promoted strengthened partnership between universities, local authorities and schools (Beck & Adams, 2020), Smith (2010) noted that attempts to formalise the role of in-service teachers as teacher educators had 'foundered on resource issues' (p. 44) and it seems that a decade on, this remains the case.

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Chapter 11
Service Learning in Italy: A Bridge Between Academia and Society

Luigina Mortari and Roberta Silva

Introduction

Service Learning (SL) is a teaching method first introduced between 1966 and 1967 by Robert Sigmon and William Ramsey. They used this expression to describe a project of the Oak Ridge Associated University (Tennessee) within which the students were put in connection with local communities through the implementation of service activities, accompanied by moments of shared reflection. The aim was, on one side, the development of academic skills and, on the other, the acquisition of social values (Stanton et al., 1999). This tool quickly became so common within American higher education that its centrality has been confirmed by the federal legislative act of the Community Service Trust Act (1993) achieving, more recently, a growing diffusion in the European context (Billig & Waterman, 2014). The main reference point is John Dewey, both for his emphasis on the role of experience in the acquisition of knowledge and for the connections he established between action and reflection within a framework in which learning responds to an explorative, critical and creative logic (Dewey, 1962).

Of the many definitions of SL, West Chester University presents a tool as an experiential learning method that promotes a balance between four elements: service (Service), civic responsibility (Civic Responsibility), learning curricular objectives (Academics) and reflexivity (Reflection).

Within an SL program, the **service** action is not seen in a charitable light, but it is considered a way through which the student can contribute to the well-being of a context in which they are embedded (Kahne & Westheimer, 1996). This vision highlights the civic value of SL, according to which it is part of a way to promote

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a renewal of society, favoring the empowerment of community members in a more ethical and sustainable coexistence (Clark et al., 1997; Stoecker et al., 2010; Ward & Wolf-Wendel, 2000). This leads to a precise idea of **civil responsibility** that implies an assumption of responsibility toward society thanks to the co-participatory framework according to which the needs of the community are intertwined with the training needs of the students in a mutual enrichment (Clark et al., 1997; Stoecker et al., 2010; Ward & Wolf-Wendel, 2000). Indeed, in SL programs the students' development and the community enhancement are strictly related because an essential component of the students' learning derives from their taking charge of the community needs, being involved in the network of relationships that constitute it (Ehrlich, 1998; Saltmarsh, 2005; Scott, 2012). Hence, through SL, students can gain **academic achievement** both from a technical-professional and personal and transversal point of view (Furco, 1996; Hecht & Grode, 2012; Sigmon, 1994). This happens because SL not only puts the students in contact with real problems but leads the students to see them as meaningful learning experiences thanks to the critical and reflective perspective that it is able to promote (Mortari, 2017).

The last element is **reflection**; what allows experiences to be translated into learning is the critical reflection on what has been experienced (Ash et al., 2005; Eyler, et al., 1997; Hatcher et al., 2004; Swords & Kiely, 2010). Reflection is central because it leads the students to strengthen their capability to investigate the context defining its characteristics, and because it makes them able to analyze experience to grasp the systemic dimension of the service action and to re-elaborate it in a professionalizing perspective (Eyler & Giles, 1999; He & Prater, 2014; Mortari, 2017; Wade, 1997).

As a result of these features, the SL promotes a systemic vision of the school-university partnership, since it does not simply encourage an episodic cooperation between these two actors, but rather the construction of a mutually enriching and protracted one-to-one interaction (Carrington & Saggers, 2008; Conner, 2010). This aspect is fundamental for the planning phase of a SL partnership because the need to promote a continuous osmotic relationship between the university and schools must be at the heart of any decision about its implementation, ideating multiple ways or co-design and cooperation. Indeed, within an SL program, in-service teachers may find university support (both in terms of concrete help and theoretical guidance) to design, implement and analyze educational innovation paths which can promote teaching innovation and teaching quality. Additionally, this kind of partnership can support teachers in understanding the needs of the community through a heuristic approach to learning. This leads to an opportunity for mutual enrichment and, overall, to an increase in learning for all partners.

Furthermore, a SL school-university partnership promotes an exchange of experiences between in-service teachers and pre-service teachers allowing the construction of communities of practice that, once again, leads to a double enrichment (Mortari, 2017). In fact, on one hand it allows pre-service teachers to enrich their education thanks to the mentoring relationship they establish with their more experienced

colleagues, thus preventing the experiential knowledge built up by the latter from being dispersed; on the other hand, the students offer to the teachers the sharing of the knowledge they have developed thanks to their academic training, guaranteeing them an implicit "professional updating" (Mortari, 2009).

The following section provides a theoretical reflection of the development of civic responsibility and its link to the construction of an SL program with a specific community vocation.

Toward a New Education Policy

Service Learning and the Development of Civic Responsibility

Firstly, we need to start from the concept of "good": in the first book of *Nicomachean Ethics*, Aristotle states that every being tends toward the good but to pursue it, it is necessary to know what is "good", and what are the actions that make goodness possible. Many ancient philosophers were concerned with this question but over time this matter was neglected, because it has been considered impossible to offer a satisfactory answer. This is a question to which human beings, because of their being limited and conditioned entities, cannot find an appropriate and exhaustive answer. Nevertheless, recently this issue is again at the center of scholars' attention, particularly within a social and economic framework, in which the concept of "common good" is becoming more and more popular. An example of this new attention in Italy is the introduction of a decree for the teaching of civic education starting from the school year 2020/2021, in all primary and lower secondary schools. The introduction of this new policy includes the aim of "developing responsible and active citizens and to promote their full and conscious participation in the civic, cultural and social life of communities, in compliance with the rules, rights and duties" (Law 92, 2019).

The use of the adjective "common" should not be needed because, since every human being is in essence a relational being, it follows that good is always something common; indeed, human beings' plural substance makes "the good" not pertaining to an individual sphere. Therefore, according to Aristotle, between the good of a single individual and the good for the community is the good for the community that must be mainly pursued (Et. Nic., I, 2). Hence, if the good of the many has a great value and if we can define this as a common good, then this concept is essential to design a learning program aimed to promote civic responsibility.

Despite this, academic programs often promote an individualistic vision of learning; its aim is the acquisition of a qualification strictly connected to the gaining of a professional goal. Obviously, this is a worthy objective, but it can be connected to a broader vision of the training experience in which the development of the individual is part of a larger design, aimed to enhance the building of a better world for everyone. For a long time, academic education has lost its connotation as a tool for personal

as well as professional growth, having fallen into a reductionist vision inspired by an exclusively utilitarian and mercenary logic (Marullo & Edwards, 2000; Mortari, 2017). This regression is particularly critical from a political point of view and, if there is no turnaround, the very seeds of democratic life will be lost (Nussbaum, 2010). But how can we reverse the course? A compass could be represented by the concept of paideia; with this expression, Greeks indicated the actions necessary to take care of the human being's soul, to make them in turn capable of taking care of themselves and of the community. Understanding academic training in light of paideia can be the key to make it an opportunity for growth not only from a professional point of view but also personal and civic one. However, to achieve this goal, it is necessary to reconnect academia and community, putting them in an authentically civil and politically-aimed framework.

Political responsibility is what allows transforming an individual into a citizen. In the Protagoras, Plato narrates that Zeus, prompted by a question posed by Hermes (date), reflects on how to distribute political disposition to human beings and affirms that everyone should receive this competence, together with the virtues of respect and justice. Indeed, everyone must participate in the life of the city because if only a few possessed the political disposition, which allows the government of social life, then the city would fall apart (Plato, Protagora, 322 cd). Hence, the essence of the human condition is plurality and consequently that each human being has an individuality, which finds its reason in the social and relational dimension. Therefore, acquiring a political posture means becoming aware of human beings' social dimension and understanding how, to assume a civil responsibility, it is necessary to take care of the community through constructive and supportive collaboration.

In contrast, it is necessary to put civil responsibility at the center of reflection, starting from the premise that according to what makes human beings able to act for a common good, understood in the Aristotelian sense, is for the creation of a world where it is possible to live an adequately good life. This is a responsibility that every educational institution should assume to support students in becoming individuals, professionals and citizens capable of committing themselves for the good of the community.

SL is placed within this framework, and it is a learning approach capable of promoting personal and professional training within a partnership inspired by a communitarian vision, in which social responsibility prevails over self-referential logic. Linked to it, Community Service Learning (CSL), which is a variant of SL, pays particular attention to the role of the community; this means that the success of a CSL program is evaluated through the ability to offer to the students significant learning opportunities, but also to respond effectively to the needs of the host community, contributing to its growth (Dallimore et al., 2010).

In this framework, the learning experiences are generally structured in four phases: (1) the students meet the community and discuss their respective needs, establishing a process of mutual discovery; (2) the common project is conceived, developed and implemented; (3) the students and members of the community reflect on the

carried-out action, putting critical issues and opportunities at their word; and (4) the students and the community describe the phases of the project in order to document them but also to hypothesize a subsequent action (Carroll & Farooq, 2007). This last phase implies a return to the community (through the writing of reports and/or the organization of events) that embodies a social and political value for the community. For this reason, CSL allows strengthening the development of civic responsibility leading all the actors involved in the experience to increase their awareness about the transformative potential of their actions (Stoecker et al., 2010), which become an expression of active citizenship characterized by a communitarian effort.

Inspired by Dewey: An Experiential and Communitarian Framework

Service Learning is strongly inspired by John Dewey; however, while reference to this author is often generic, it is necessary to go deeper into the thought of this author to investigate how he can provide insights for the development of SL programs. Dewey argued that it is the sharing of a common action that makes experiences relevant (Dewey, 2016). This consideration echoes in CSL programs that engage the students in a learning process embedded in real contexts. This is because it is the reality that makes these tasks aimed not only at the students' academic development but also at their personal growth, linked to the construction of a sense of community through actions of service. But what is meant by the term "service"? This word derives from the Latin *servitium*, which means servitude, slavery or condition of a slave. Therefore, at first sight it has an aura of meaning that is not appropriate to an educational context since it evokes a condition of non-freedom. However, it should be emphasized that the Latin verb derived from *servitium* does not mean only "to live in servitude" but also "to be useful", to take care of, and it is with this sense that the term must be considered. Indeed, a fundamental element for the construction of a CSL program able to develop civic responsibility is the capability of the partnership to involve the students (in this case future teachers) in a care-oriented perspective.

It is clear how it is necessary to investigate the thoughts of this scholar with even greater attention, to understand what further indications they can provide to CSL programs. Always referring to the concept of "service", Dewey affirms that the purpose of education must not be to develop mental skills and faculties as an end in themselves, but to lead the individual to develop their potential, showing them how this can be put to good use in a social and relational context. Therefore, this contributes to the flowering of the society to which the individual belongs. Specifically, Dewey states that "when the acquiring of information and of technical intellectual skill do not influence the formation of a social disposition, ordinary vital experience fails to gain in meaning, while schooling, in so far, creates only "sharps" in learning—that is, egoistic specialists" (Dewey, 1916, p. 15).

For this reason, teacher education should not be reduced to the acquisition of technical knowledge, but it must be aimed to make the teacher a catalyst; someone able to make others flourish in harmony with the social and relational environment in which they live. Hence, it should no longer be considered a tool for the growth of the individual for themself, but a way through which they can grow as part of a community, in continuous osmosis between the individual and the community, that gives a purpose and meaning to their being. If we place education in a framework oriented toward civil responsibility, we lead students to rediscover the meaning of their actions through direct contact with the real problems they are called to respond to as active members of a community. In this way, knowing, thinking and reflecting become cognitive actions capable of generating true and vital knowledge because they move from real problems, not from abstract and bookish questions, rooting learning in life.

Looking at the Experience

The Program and the Partnership

It is from these reflections that the school-university partnership presented here was born. In 2015, the University of Verona commenced a CSL school-university partnership within the combined Bachelor's/Master's Degree in Primary Teacher Education involving (a) students of their final two years who completed an internship within the CSL program (for a total amount of 350 h), (b) in-service teachers coming from different schools and (c) an academic team that had collectively assumed the role of supervisor. It was named Community Service Research Learning (CSRL), because it follows the model of CSL and, at the same time, asks the students to develop educational research related to their service action and write a research dissertation on their experience. This choice is coherent with a program aimed at cultivating research skills that, according to European Commission (2014), is one of the key skills for teacher education.[1] Moreover, these dissertations form an important part of the partnership as they are a return to the school communities, not only as documentation of the projects realized, but also useful for the partnership schools in gaining a deeper understanding of the e transformative potential of their communitarian efforts.

In brief, the students involved in CSRL first complete workshops that are aimed to make them familiar with the tools needed to observe, document and analyze their experience. They are next partnered with their mentor (an in-service teacher) and are fully involved in the life of the classroom. Then, through observations and constant consultations with the mentor, every student is asked to define the classroom need they would like to address. This identification is the result of a communitarian effort being a pivotal element of the relationship between the student (pre-service

[1] Indeed, research skills are crucial for future teachers because they allow for critically analyzing real contexts to define the problems that must be faced, or to evaluate the effectiveness of the actions implemented to "solve" these problems (Mortari, 2017).

teacher) and the mentor (in-service teacher). After that, the students are asked, with the support of the academic tutor, to design an action (e.g., educational program, a teaching program, or an evaluation program) aimed at responding to the previously identified need. Then this project is completed by the student with the support of the mentor and, meanwhile, the student collects data to analyze the action to investigate its capability to respond to the need. Importantly, during the program, the students are required to write a reflective journal in which they write thoughts, feelings and actions related to their experience.[2]

When piloted in 2015, the partnership program involved about 40 students and nine schools, located in the city of Verona. Nowadays, the partnership program is institutionally part of the combined Bachelor/Master's Degree in Primary Teacher Education and it represents the backbone of the internship path of this degree at the University of Verona. The academic team (named "Laboratorio LeCoSe") that manages the partnership is comprised of eight teachers supported by four coordinating tutors and three organizing tutors.

During the 2020/2021 academic year, the partnership expanded involving 131 students and 131 mentors, distributed in 94 schools across five districts (Verona, Mantua, Brescia, Vicenza and Trento). To manage such an extensive and heterogeneous partnership network, which was born thanks to a series of continuous contacts of the academic team with local schools, the team created a complex organizational structure (represented in Fig. 11.1). As mentioned, the 131 mentors (coming from the 94 schools), are placed in a one-to-one partnership with the 131 students belonging to the combined Bachelor's/Master's Degree in Primary Teacher Education and these "couples" represent the "monads" upon which the entire organization is based.

Two different types of groups coexist within the partnership: "local" groups and "colored" groups. These groups are organized in an "intersected" way: this means that every couple belongs at the same time to a local group and to a colored group. The local groups are organized on a geographical basis and each group is coordinated by a tutor; the purpose of these groups is to allow moments of discussion among subjects belonging to schools located in the same territory, encouraging exchanges on context-specific questions and supporting students in designing of the intervention, starting from the guidelines promoted by the local organizations (e.g., the Provincial School Office).[3] The colored groups are thematically organized (each color corresponds to a macro-issue; e.g., the green group is focused on science education, etc.) and are coordinated by academic teachers. The purpose of these groups is supporting students in the analysis of the identified need, from the literature analysis, which is necessary to design the intervention in the data collection and in the data analysis. These groups are also aimed to promote the comparison among the students who are facing similar challenges, encouraging peer tutoring.

[2] Although still not very widespread, the CSL models that assign students the role of researchers within the communities in which they are involved prove to be particularly effective both in supporting student growth and in responding to the needs of the context (Stoecker et al., 2010).

[3] The Province of Verona and the Province of Vicenza are strongly linked and share the same approaches; for this reason, they are organized in the same local group.

Fig. 11.1 Service learning as represented by West Chester University. *Source* https://www.wcupa.edu/_services/stu.slv/facultySLDefined.aspx

Therefore, since each student belongs at the same time to a local group and to a colored group, it is necessary to support the continuous dialogue between these two groups. This is managed by three organizing tutors, who also deal with the administrative procedures necessary for the organization of the partnership network. The administration includes organizing documents and/or items, such as signature of the partnership letter by the school and compilation of the learning agreement by the student and signed by the school (Fig. 11.2).

The organization of the project is mainly based on a voluntary basis or by exploiting resources already made available by the university for the internship of students of the combined Bachelor's/Master's Degree in Primary Teacher Education. Specifically, both the organizing tutors and the coordinating tutors are personnel assigned by the university to manage the internship pathways of the students, while the teachers participate voluntarily in the program, without further incentives. This makes it possible to significantly reduce the out-of-pocket expenses necessary for the project management; consequently, the small "extra" budget made available by the university can be entirely dedicated to the organization of workshops or moments of study. For example, approximately once a year, a dissemination event is organized not only for all the schools involved but for the entire school community, within which some student-mentor couples "present" their co-designed projects.

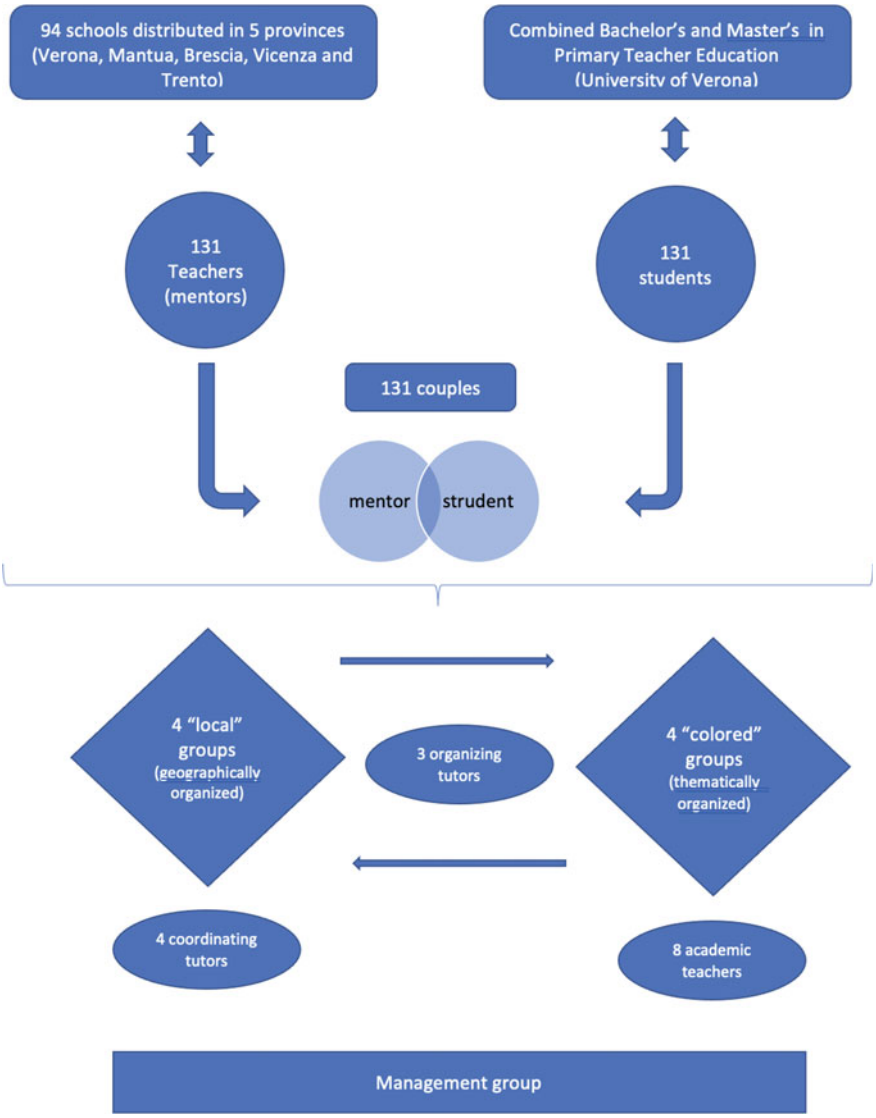

Fig. 11.2 Organization flow chart

Despite its complexity, this opportunity for sharing is: (i) effective in supporting both students and mentors, (ii) promotes the involvement of the university students in the school communities and (iii) develops peer communities which stimulate reciprocal learning, enhancement and a reflective attitude.

Analysis of the Feedback

Following its success, the CRSL school-university partnership has become of interest to the Teaching and Learning Center (TaLC) which oversees the quality of teaching and learning across the entire University of Verona. The partnership program model will form part of a broader evaluation strategy to improve engagement and teaching innovation.

According to this evaluation process, the program is investigated during the "experimental phase" to identify the elements useful to optimize it. Then, according to these insights, the program is re-designed and new design documents are drafted; therefore, the evaluation cycle can start over. This model is linked to the evolutionary assessment approach, adhering to a dynamic and transformative perspective, and achieves its aim by turning an epistemically oriented gaze into teaching practices (Harvey & Newton, 2007; Pointe, 2013). In the case of CRSL, two studies were conducted, focusing on the feedback collected by some of the actors involved in the partnership program (the students and the alumni) and the analysis of the results of these studies also gave us precious information about the effectiveness of the partnership.[4]

First to be analyzed were the reflective texts that the pre-service teachers were required to write to finalize their degree in the last phase of their CSRL program, with the aim to identify the achievements that the students themselves considered relevant in their experience. There were 40 students involved in the research and the data was analyzed using an inductive content analysis (Elo & Kyngäs, 2008) leading to identify the elements that the students considered relevant for their personal and professional improvement (and consequently the elements of the program that should be maintained or strengthened). The analysis led to the coding of three categories: (i) Professional achievement, (ii) Transversal achievement and (iii) Inter-relational achievement" (see Coding A in Fig. 11.3). The most important analytical aspects for this chapter are (a) the label "The development of a service perspective" (belonging to the category "Professional achievement"); (b) the label "The development of collaborative skills" (belonging to the category "Inter-relational achievement").

The second study involved 42 alumni who are now registered teachers. The aim of this study was to identify, starting from their experiences, elements useful for the optimization of the program. The tool used to collect data was a structured interview based on a SWOT analysis, identifying the Strengths, Weaknesses, Opportunities and the potential Threats of the partnership program. Additionally, the analysis was conducted through an inductive qualitative content analysis (Elo & Kyngäs, 2008). The themes in strong relation with our focus are (a) "Experience in working to respond

[4] At the moment, two studies are being planned that aim to investigate the experience of two other actors involved: the mentors and the academic staff.

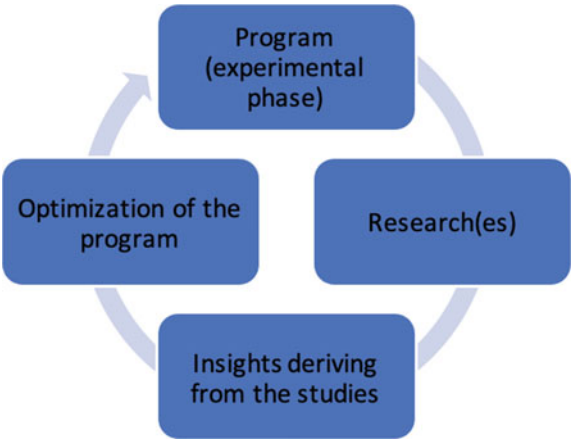

Fig. 11.3 Evaluation process

to a real need" (belonging to the category "Strengths"); (b) "Immersion in the school context" ("Strengths"); and (c) Experience in team collaboration" ("Strengths").[5] The category "Strength" is represented in Fig. 11.4.

To go deeper into these themes, we decided to put in related data that emerged from these two studies through a triangulation of qualitative data sources, which we refer to as *crystallization*. The objective of crystallization is to triangulate different qualitative analyses by linking them together (like the sides of a crystal), to draw a multi-dimensional image of a complex phenomenon, thus enriching the depth of its representation (Elingson, 2009, 2017). In Fig. 11.4 the connections that were made between the coding, resulting from the above-mentioned research, is highlighted with specific attention to the elements connected to our research focus (the effectiveness of the partnership).

Crystallization leads us to understand if the aspects that the students' highlighted are relevant for their personal and professional growth when they were still engaged in the CSRL program (Coding A). This can be put in relation to what the alumni identified as strength points of the program (Strengths category—Coding B) upon completing it and through reflection of its effectiveness now as practicing teachers. Focusing our attention on the aspects related to the partnership, this triangulation generates important feedback about the effectiveness of the relationship with the stakeholders, because it demonstrates if the participants have developed civic "maturity" and a participatory attitude to community life and if these positive achievements withstand over time.

We started from the first label identified in Coding A ("Development of service perspective"—Professional achievement) and we put the excerpts belonging to this label in connection with the excerpts belonging to the two labels isolated from Coding B ("Experience in working to respond to a real need" and "Immersion in the school

[5] There are also some other labels that can be put in connection with the effectiveness of the partnership but they involve logistic aspects such as "Expansion of the geographical area where the Program is widespread" ("Opportunities") that have already been considered and implemented.

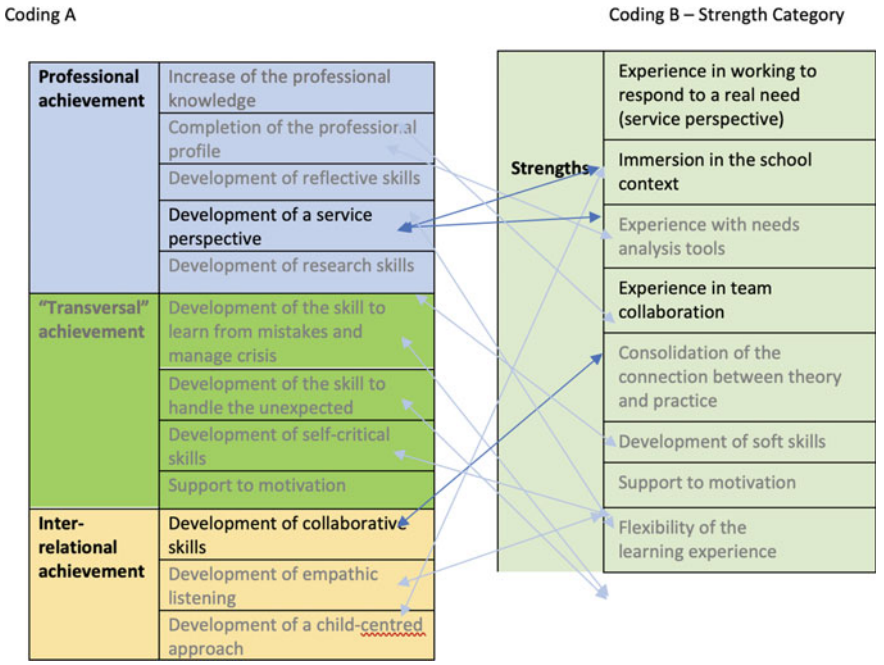

Fig. 11.4 Crystallization of qualitative data

context"—(Strengths). Then, we compared these excerpts, looking for the connecting points that transversally characterize the "communitarian relationships" over time. Table 11.1 shows some excerpts that clearly exemplify the pieces of data connected with these labels.

What emerges from this triangulation is a sense of concreteness and reciprocity that characterizes the relationship between those involved with the school community. In regard to concreteness, this could be considered granted because, as we have previously underlined, SL has a strong relationship with Deweyan thought and, being experiential learning, it ensures a strong connection between academic learning and practical experiences (Dewey, 1916, 1962; Mortari, 2017; Stanton et al., 1999). Nevertheless, within this framework, the reference to concreteness has a deeper meaning: in this case, the concreteness of the experience in which the students are involved is functional to the learning dimension, but it also characterizes the relationship among the school community. What emerges from the subjects involved in the research is that in their experience, the program being linked to a concrete action that is aimed at finding a solution to a real problem makes them feel more directly "part" of the community because of its impact on a "real issue' and the related impact on their emotional state through their action. The other connecting point, which is related to concreteness, is "reciprocity". Reciprocity is also related to an emotional dimension because the subjects underline their being aware of the reciprocity of feelings that they perceive between them and the mentors. This "correspondence of feelings" is

Table 11.1 Connecting points I/II

"Development of service perspective" (Professional achievement. Coding, A)	"Experience in working to respond to a real need" (Strengths—Coding B)	"Immersion in the school context" (Strengths—Coding B)	**Connecting points**
/ was *able to experience what it means to offer a service [...]. For the first time, helping the teacher, 1 really felt that what 1 was doing was useful.* (B2)	*[The strong point of the Program is] the idea of meaning the service action as a help to deal with a real and concrete need of the classroom and the teacher. The student is in the classroom to give* ***real help*** *and therefore he is seen as a resource and not a burden.* (Answer#5)	*The Service has given me the opportunity to experience day by day all the challenges that a teacher encounters and, once identified, to be able to remedy them by* ***finding a solution.*** (Answer#42)	***Concreteness***
1felt the trust that the teacher had in me and her desire to feel supported by me. [...] And 1 felt the same. (G2)	*During the Service-Learning Program, we experience new perspectives and* ***an equal exchange*** *takes place: there are no recipients, but everyone is the protagonist. [.]: it is a way to learn and enrich oneself.* (Answer#65)	*[The strong point of the Program is] entering the school and experiencing its dynamism and complexity and* ***at the same time*** *being supported by expert teachers on the one hand, and university professors on the other: this allowed me to add another piece to my professional profile.* (Answer#63)	***Reciprocity***

what opens the door to a stronger relationship, which results in mutual enrichment for both the school and the university participants, making their relationship effective and mutually beneficial (Table 11.2).

This triangulation of data highlights different elements, albeit in part linked to what has been previously underlined. The emotional dimension linked to the feeling of trust and sharing emerges again; however, in this case, it emerges within a network of relationships among subjects with different expertise and areas of knowledge (e.g., students, mentors, and academic teachers). In other words, what maximizes the richness of this collaboration (also but not only from an emotional point of view) is its being placed in a multiple interchange, that by calling into question different points of view and dynamics produces the definition of a richer representation. Moreover, to reinforce this mutual enrichment, it is necessary to schedule regular moments (explicitly devoted to mutual comparison) according to a multiple logic that promotes

Table 11.2 Connecting points II/II

"Development of collaborative skills" (Inter-relational achievement, Coding, A)	"Experience in Team collaboration" (Strengths - Coding B)	Connecting points
Service Learning was *able to teach me the concreteness of doing, the richness and importance of working together: it was a path that required continuous collaboration among various subjects because it was co-built from start to finish. (M4)*	*Amona the strenaths of the Service Learnina experience in which 1 participated there is the great value given to* ***collaboration, both with the academic team, other students who, like me, had chosen to undertake this path, and with the school.*** *This cooperation* was *fundamental [...] thanks to the establishment of bonds of mutual trust and the sharing of ideas and experiences.* (Answer#44)	***Multiple collaboration***
The choice to walk together in this new experience was born from the need to confront each other, from the awareness that observing things as a couple returns a richer picture, capable of acting more effectively on the context. (Cl)	*The* ***open discussion and constant dialogue*** *stimulated reflection on every action and thought that accompanied our didactic action, but also represented a great support within a path in which we lived a situation of disorientation.* (Answer#54)	***Openness to confrontation***

comparison at different levels: among peers (e.g., reflective workshops dedicated only to students), between students and mentors (e.g., by explicitly providing interviews with the mentor or interviews of joint reflection) and between students and academic staff (e.g., through moments of dedicated consultancy).

The triangulation illustrated here gives us feedback about the effectiveness of the relationship with the stakeholders, because it confirms that, due to participation in the program, the subjects we have interviewed assume a way to be part of a community characterized by concreteness, reciprocity, multiple collaboration and an openness to critical reflection. All these elements distinguish mature and responsible participation in working in partnership and, according to our aim, this supports the effectiveness of the partnerships involved in the program. Moreover, this analysis shows us (a) precise lines of action for the promotion of the effectiveness of the partnership network (structuring moments of discussion and shared reflection) and (b) indicators (concreteness and reciprocity) which allow us to monitor this relationship.

Conclusion

According to Stein (2016), a community exists when a group of subjects shares a project and dedicates to this project its actions, bringing effort and competencies into it until the "mine" and "yours" are intertwined. Nevertheless, this does not mean one should "suppress" individuality, but, on the contrary, to create a framework in which the single individualities are supported and enhanced by other ones, such as voices in a chorus. In a real partnership, this is what happens, and it is for this reason that the civic responsibility does not obscure but rather exalts the responsibility of the individual toward themself. However, creating a partnership in which everyone finds a shared meaning, requires a reorientation of the current culture, creating occasions in which this communitarian dimension can be experienced because, otherwise, it is impossible for individuals within a partnership to discover its inner beauty and potential.

This is exactly what our school-university did; our university students, through the involvement in school communities, discovered the richness of a communitarian dimension in which what is asked of them is not to "homologate" but, on the contrary, to enhance their uniqueness and potential because it is through them that they can contribute to the well-being of the entire community and at the same time realize their own being. The analysis conducted on the feedback of the actors involved in our program confirm that CSRL can contribute to strengthening the relationship between the university and school partners. A partnership which celebrates the uniqueness of each member, yet provides the conditions for new meaning of the concept of community, results in everyone finding their "place" contributing at the same time to the well-being of others in a perspective of mutual enrichment.

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Chapter 12
The Network of Erfurt Schools (NES): Professionalization of School Actors and School Development Through School, School Supervisory Authority, and University Cooperation in Germany

Stephan Gerhard Huber and Nadine Schneider

Introduction

This chapter evaluates the effectiveness of a school network program in Erfurt, Thuringia, Germany, called the Network of Erfurt Schools (NES), which was developed in 2006 to promote cooperation between the Erfurt School Supervisory Authority, schools, and universities (Huber & Schneider, 2009, 2013). For the latter, Professor Stephan Huber's research group at the University of Erfurt was involved. NES was originally launched as a qualification and support offer for educational leaders in self-responsible schools, in which 14 schools in the city and region of Erfurt were involved.

School supervisory authority participation: The idea and initiative for the partnership triad came from the local School Supervisory Authority. One of their tasks was to support school leadership and schools effectively. There were two streams of development. The first was in the field of staff and leadership development, e.g., identifying individuals with leadership potential at an early stage and supporting them. The second was in the field of supporting school and quality development, e.g., organizing and supporting regional school development networks and coordinating local education management initiatives, etc.

The original version of this chapter was revised: The chapter title has been updated. The correction to this chapter is available at https://doi.org/10.1007/978-981-99-0807-3_15

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University participation: At the time, Huber's research group was involved in research and knowledge transfer in the areas of leadership/management, quality management, human resource management, and in particular human resource development. The beneficiary target groups were individual actors and institutions in the field of education, especially executives, in the entire German-speaking, European and non-European area. In addition to its research and development mandate, Huber's research group sees itself as a service facility for teachers, school management, school administrators, cantons, ministries, and institutions that deal with the quality and development of educational facilities. In the sense of "Responsible Science" (in work in practice, with practice and for practice), the team works on thematically broad projects that are highly relevant to science, educational practice, and educational policy.

School participation: Schools had to apply to participate in the network. NES's aim was to contribute to the professionalization of school actors, particularly educational leaders, and to the development of school organizations regarding school development through cooperation at the local level. The school leaders and the members of their teams are the target group of the qualification offer. In this way, the course takes account of the principle of cooperative leadership and guarantees the transfer of what has been learned into practice.

Overall, NES conducts professional development and offers exchange opportunities. In this network, the following forms of cooperation were promoted: cooperation within the school, cooperative school management, cooperation between schools, and cooperation with other institutions within and outside the school system. The initial focus was on the professional development opportunities organized as part of the joint project. However, during the project, the focus increasingly shifted to cooperation between schools in various areas to develop the quality of professional work in schools. After five years, NES officially concluded in 2010. Although the formal framework ceased to exist, various cooperative relationships between the schools involved remain, and the school–university partnership has a long-term benefit, as a follow-up survey shows. Hence, it may be fairly stated that the network still exists as a self-managed cooperation project. In the following section, the conceptual features of the qualification and support offer are presented, and the course of the project is described.

Objectives

NES aimed to support both school management and teachers in tackling the new tasks and challenges that arise regarding school self-responsibility. The focus was on aspects of school governance and on improving the quality of work in schools, especially teaching and learning. Thus, the network was initially consistently designed

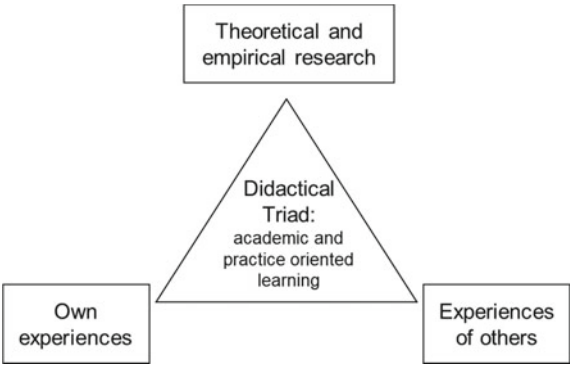

Fig. 12.1 Didactical triad of the Network of Erfurt Schools (NES)

to support school leaders and teachers interested in school quality and school development in building and expanding their competencies in systematic school development. This aim was to enable the participants to lead development processes in their schools in a more targeted, systematic, and effective way and to design these processes more consciously for personal responsibility, based on the knowledge from theoretical and empirical research, the comparison with their own experiences, and in exchange with the experiences of others (see Fig. 12.1).

Hence, fundamental prerequisites for adult learning could be considered. Teacher and school leaders, as adult learners in general, bring their personal and professional experiences, their knowledge, and their way of seeing themselves to bear in the learning process to a high degree. In contrast to children, for whom learning something new takes precedence, adults base their learning needs on developing what they already know (see Knowles, 1980; Siebert, 1996). Adult learners select what they learn, they filter information, consciously or subconsciously. Thereby, they proceed in a way that is much more problem-oriented than theme-centered, and the effects of learning are more sustainable when there is the possibility to apply in practice what they have learned.

According to Gruber (2000), gaining experience in professional competencies means learning in complex application-relevant and practice-relevant situations (see also Joyce & Showers, 1980; Kolb, 1984). New competencies are mostly gained through practice followed by feedback and reflection. However, sufficient theoretical foundations should be imparted as well so that a reflection of practice beyond the well-worn subjective everyday life theories can take place (see Fig. 12.2; Huber, 2011, 2013a, b). Adults expect that the knowledge and understanding gained are tools that can be applied in specific and extremely complex work situations, with as little loss due to the transfer as possible.

The reality and the experiences of the participants, their needs, and problems, should be the starting point and the point of reference for the selection of content and methods applied. The knowledge that cannot be made use of is called “inert knowledge” (Renkl, 1996; Whitehead, 1929).

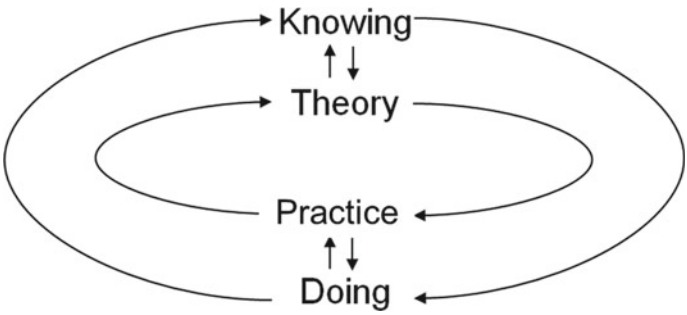

Fig. 12.2 From theory to practice, from knowing to doing (Huber, 2011, 2013a, b)

For the 14 participating schools in and around the city of Erfurt, qualification events took place in the network, which were oriented toward the central topics of school quality, school development, and school management concerning educational policy and school-related issues. To facilitate the knowledge transfer acquired in the qualification, and to ensure the sustainability of using the extended competencies in the school practice, collegial networking was stimulated and made possible by the network. The university and School Supervisory Authority partners offered further training events and saw themselves playing the role of cooperation mediators, cooperation promoters, and cooperation supporters.

One advantage of cooperation between schools is that solutions to similar challenges can be developed jointly within the framework of the extended form of self-responsibility (Huber, 2014, 2015a, 2018, 2020a; Huber & Koszuta, 2021; Huber et al., 2012, 2017, 2019, 2020a, b; Huber & Wolfgramm, 2014). This can lead to a reduction in the workload for schools. As various experiences and perspectives contribute to the dialogue, resources for options of action strategies emerge, which can be used in the work processes of the individual schools. The solutions developed cooperatively are potentially of a different quality compared to the sum of individual performances. By working in groups, feedback possibilities were offered to the participants.

Systematic cooperation also stimulates new knowledge development, which is subsequently shared and incorporated into the practice of the profession. Adding to individual learning, cooperation also promotes organizational learning. Ultimately, cooperation should positively affect the social climate in the participating schools. By creating a positive attitude toward cooperation at the individual level, a "culture" can also grow at the school community level in which cooperation is both a goal and a method. Furthermore, cooperation between schools can promote a culture of cooperation within a school (i.e., among school management, teachers, and pupils). Obstacles to cooperation in the individual school, which may arise due to differences in the organizational structures or cultures of the individual schools, can be overcome more easily through cooperation among schools.

Notably, the individual events in NES considered the following three principles (Huber, 2010, 2011):

- Demand orientation: The topics that are the focus of the events are worked on in close collaboration for a prolonged time. These topics are determined by schools and are flexible in advance. Under this thematic umbrella, the individual school formulates its focus that it would like to work on.
- Application orientation: In all events, the experiences of the participants and their schools are consistently considered and used. The participants are given time for individual exchange within the school team and exchange with teams from other schools or school types. This deliberately creates opportunities for improved transfer to the schools.
- Effectiveness and sustainability: To increase effectiveness and achieve sustainability, practical support and assistance are offered to the schools. Various support services are explicitly recommended to the school teams of the individual schools; for example, those of the Thuringian Ministry of Education and Cultural Affairs, the Erfurt School Supervisory Authority, the Thuringian Institute for Teacher Training, Curriculum Development and Media (Thillm), and external support services. Thus, the network concept is also consistently pursued in this area.

Target Group

Since a single person cannot initiate the steering processes at a school, the project involved senior and middle school leaders across each setting. The 14 schools involved in the project were two primary schools, five comprehensive secondary schools, and seven vocational schools. Furthermore, the individual schools each participated with a school team comprising two to three people, including the principal, their deputy, and other members of the principal's office. Alternatively, representatives of the existing coordination committees or steering groups for school development at the schools were involved. However, the size and composition of the school team opened the possibility of jointly finding solutions for the school and planning their implementation during the events. This promoted both transfer and sustainability.

The school participating in NES, with self-responsibility, decided the concrete composition of the school teams. The team composition during the project could only be changed in justified individual cases. At the request of some schools, other teaching staff members at the school were also included if their functions or experiences for the respective thematic event were assessed as meaningful and useful. For example, a colleague who controlled public relations at the school also participated in an event on public relations. Here, a place of learning was created for potential future managers, where they could gain insight into the work and area of responsibility of the school management.

Right from the start, there was a focus on participant orientation. As experts in their educational practice, teaching staff contributed their wealth of knowledge and skills and networked with the other participants. These included national and international lecturers from educational practice, educational policy and administration, educational research, and support systems. Staff members:

- get to know the international and national social (mega) trends and development tendencies in the field of education
- get to know current developments in management, leadership, and governance
- get to know scientific (theoretical and empirical) models of educational quality and educational innovation and know about their successful and practical implementation in everyday working life
- expand and deepen competencies (knowledge, skills, and abilities) in concrete fields of action of management and leadership as needed by personal further training planning
- systematically analyze their own professional practice and the overall strategy for the management and development of their educational organization to work out concrete development steps that can be implemented in practice as needed
- manage individual work needs (analysis and strategy work on their own organization and leadership role) as well as case work in a scientific project and use this "action research" as a specialization for their own professionalization and further development of their organization
- deal with new or already experienced professional requirements for managers in a self-assessment; the Competency Profile School Management (CPSM)
- learn different procedures for institution-related analysis, e.g., B. school barometer plus and strategic planning, e.g., B. ISO strategy—school development in the balance of Innovate, Sustain, Optimize (Huber, 2021)
- network with representatives from other educational organizations and areas, acquiring in-depth knowledge and skills for the systematic dialogue with other participants, lecturers, and speakers, in job shadowing, coaching, and mentoring talks.

Although participating in each of NES's meetings was voluntary, the schools participated in all events to appropriately exchange the knowledge acquired in their own schools and to present the results of their work both internally and externally.

Implementation of Multiple Learning Approaches in NES

The different typical learning occasions of effective further education and training (Huber, 2011, 2013a, b; Huber & Schneider, 2022), such as courses, self-study, feedback, collegial exchange, concrete experiences, reflection, and planning, were the conceptual cornerstones in NES (see Fig. 4; Huber, 2011, 2013a, b) and are captured in Fig. 12.3.

The following list describes the details of the elements in Fig. 12.3:

- Courses (external/in-house). Course formats are part of the basic methods of professional development. Used innovatively, they consider that "learning" to be modifying one's patterns of behavior and thinking is to be comprehended as inspiration and information, reflection and exchange, experiment and realization.
- Self-study (textbooks/software). In self-study methods, the respective topics of the courses are prepared and explored. The study material should be up to date, mirror

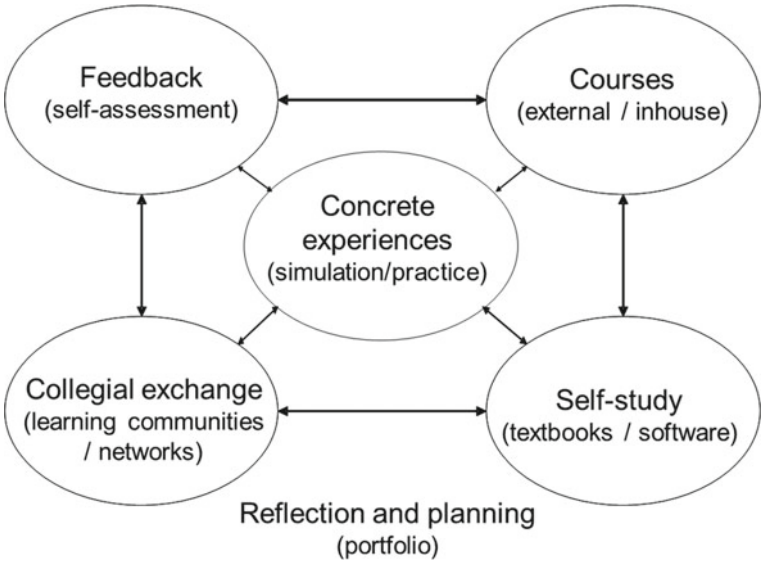

Fig. 12.3 Multiple learning approaches (Huber, 2011, 2013a, b)

the state of the art of academic discourse and comprise authentic documents taken from practice, and provide the participants with basic and background knowledge, with practical transfer support.

- Concrete experiences (simulation/practice). Of course, practice is always the starting point and goal of professional development programs, particularly when they are needs-oriented and practice-oriented, but it is also a very interesting learning place. The idea is that the real working context as clinical faculty alone comprises the appropriate complexity and authenticity necessary to lead to adequate learning processes. Working on individual projects, classroom observations, and shadowing and mentoring provide the opportunity to work on complex problems taken from practice.
- Collegial exchange (learning communities/networks). Professional learning communities and networks are central components in situated learning opportunities and provide chances for an intensive reflection on one's actions and behavior patterns. By that, learners are likely to start from their cognition and beliefs, which control their behavior patterns, and from their subjective theories, then modify their ways of acting accordingly. If professionals are integrated in learning communities and networks outside their own schools, there is a higher possibility to widen their view and, thus, change processes are supported (see Little, 2002; Erickson et al., 2005, both cited in Gräsel et al., 2006).
- Reflection and planning (portfolio). To use all learning opportunities, reflecting upon them seems to be crucial. Such reflection can take place before participation in professional development (to choose the right opportunities or to sharpen the individual needs) as well as after it (to modify one's conceptualizations). At the beginning of a program, the participants often start a portfolio. The portfolio is

suitable to combine teaching and learning with self-evaluation. This documents the development process and supports the individual's professional development planning.

- Feedback (self-assessment). Most professional development programs—particularly if they are linked—emphasize transfer, reflection, and the exchange of what has been learnt with one's colleagues. Application orientation and action orientation are central to achieving the sustainability desired or required. One aspect, however, is missing, which is the part of assessment-based feedback. This must not be underestimated as an important learning approach. It is highly recommended that participants go through self-assessment for an individual potential analysis to receive feedback on relevant requirement areas and dimensions. Formatively used, this provides a needs assessment as a good start for planning professional development. If done in the right way, it can have a very strong impact on the motivation for learning, too, not only on the content.

From these multiple learning approaches, various qualification formats for the school–university partnership were derived. These are as follows:

- Training events or thematic plenary events (as half-day or full-day events)
- Working groups
- Participation in international education conferences
- Literature and working materials for self-study
- Learning location practice/school (in the school team)
- Collegial consultations, coaching, and moderation
- Discussion rounds with different personalities (fireside evenings)
- Job shadowing
- Knowledge management (instead of a portfolio): a virtual learning environment as a support
- Self-assessment and feedback through evaluation.

Through the different formats, the acquired knowledge can be systematically used for one's own professionalization alongside quality assurance and development in one's own school. These are briefly described below.

Training Events or Thematic Plenary Events

Within the framework of a kick-off event for the needs analysis, the participants were allowed to communicate their current qualification needs. In the kick-off event, the content of the further full- or half-day events and the further qualification formats were discussed. On various topics (e.g., teaching development, self-evaluation, team development, etc.), the schools set their individual focus on which area they worked on for the duration of the school year.

Further training events were spread over at least four days throughout the year and were structured as follows:

- Reflection on the work phases in the school (experiences from the trial phase, dealing with possible solutions, support offers and their use, and open or newly arising questions)
- Collection of questions from the schools
- Treatment of topics in a differentiated form (e.g., theoretical input, group work, collegial exchange, and exercises)
- Development of solution approaches by the school teams (measures for the trial phase in the school).

The topics of the training events can be divided according to their relation to different areas in schools and the school system:

- School Systems Development:
  - Thuringian development project "Self-responsible school"
- School Management and Leadership:
  - School quality–School development–School management
  - Spreading of leadership responsibility, cooperative leadership, and steering group work
  - Dealing with difficult situations in personnel management: dilemmas, areas of tension, frustration, and motivation in the teaching staff
  - Evaluation: the practice of stocktaking and self-evaluation
  - Public relations
- Human Resources:
  - Project management
  - Human resource development and the effectiveness of training
  - Team development
  - Time management and work organization
  - In-service training for teachers in schools (training concepts, conditions for success, sustainability, and teacher motivation)
  - Cooperation
  - Collegial advice
- Learning and Teaching Environment:
  - Methods studio: learning, teaching, and moderation methods
  - Integration of pupils with learning disabilities/community teaching
  - Student motivation: how to motivate students
  - Pupil assessment systems, learning objective monitoring, and competence assessment (concept of competence)
  - Catalog of norms and values/behavior in a good school/code of conduct
  - Violence/sanctions/denial of school/rules

- Professionalization: Feedback
  - Online-based self-assessment and feedback through competence profile school management (CPSM).

Working Groups

The participants were encouraged to get together in working groups and to work on individual topics in greater depth according to their interests and/or current needs. The composition of the working groups was decided on a self-responsible basis across schools and school types, and their organization was autonomous. How many working groups and for how long a participant worked was decided by the participants in consultation with their school team. The members of a school team could also divide themselves among the working groups or work together in one group. The working groups worked both in time slots provided for this purpose during the training events and between training events on self-organized dates. The working groups, if they wished, could receive support from NES's initiators and organizers in the form of materials, moderation, etc. The working groups existed until they decided to dissolve because they had achieved their goals and continued existence was no longer necessary.

The feedback on the working groups' work to the entire plenum took place regularly via short reports on the respective work status and a detailed presentation of the work results.

In NES, there were working groups on the following topics:

- School profile, mission statement, and school program
- Team development and independent teacher teams
- School sponsoring, public relations, and cooperation
- Staff management: appraisal interviews
- School-specific curricula and methods curricula.

In the beginning, the working groups' meetings took place within the framework of the all-day training events (to which all schools or school teams were invited). After an introductory phase, they were increasingly organized on their own responsibility, independently of the training events. At the request of the participants, however, these meetings were integrated into the training events again after some time because they experienced an institutionally-secured framework, which is binding for all, as more reliable and appreciated.

Participation in International Education Conferences

A special offer for the network members was and still is participation in the World Education Leadership Symposium (WELS.EduLead.net). The participating network members can learn about international concepts and models of education leadership and engage in a diverse exchange of ideas and experiences with colleagues.

Literature and Working Materials for Self-study

The participants received literature lists on relevant topics and, in some cases, specifically compiled literature or specially prepared study letters.

Learning Location Practice/school (in the School Team)

Approaches to solutions found in the training events were to be implemented or tested by the participants in their own schools. Hence, the school teams could leverage various support services:

- NES team (collegial advice, moderation, and coaching)
- The support system of the State Education Authority (advisors of different professions)
- Consultant at the Teacher Training Institute
- External advisors.

Cooperation and Collaboration

The primary aim of the school–university partnership was for the participants to learn from each other. In their dialogue, "knowledge" emerges that could not be given anywhere else in this context-rich form. In this way, the self-learning potential of the participants unfolds. The school-specific development projects were supported by the offer of collegial consultations, coaching, and moderation. Between the training events, collegial consultation meetings were initiated, which ideally should continue beyond the intended qualification program in a cost-neutral manner. Hence, small groups were formed whose members—initially with external support in the sense of coaching—worked on concrete problems and school-specific issues and exchanged, supporting each other.

Discussion Rounds (Fireside Evenings)

Once a year, a round of talks with personalities from politics, business, science, and the school system was organized for the participants. The aim was to talk to each other in a relaxed atmosphere, to develop an understanding of each other, and to establish contacts. Topics were "Current Challenges in Thuringian Teacher Education," "Self-Responsible Schools in Thuringia," and "Current Central Educational Policy Developments in Thuringia."

Job Shadowing and Internships

Theoretical knowledge and skills are important, but illustrative practical examples, exemplary models, and independent active participation are essential. Such examples and models are provided by collegial job shadowing. They occurred within NES's framework during the school holidays. The internships could be conducted at one of the following institutions:

- In another school within or outside Thuringia (in another federal state or neighboring country)
- In another educational institution
- In a business concern.

The aim was to gain experience, know other practices and other cultures, observe and reflect on others, and generate ideas for one's actions. The exchange gained was extremely important for the participants' self-reflection. Support was offered in the arrangement of shadowing opportunities.

It has become a tradition in NES to host different network members and their schools at each plenary event. The hosts offered not only a spatial overview, usually in the form of a school tour, but also insights into the content of their school concepts and current school challenges. For example, the network visited the Lobdeburg School in the city of Jena and became familiar with its school concept. In addition, the network members visited other educational institutions, for example, the "Experimentarium of the Imaginata" in Jena, where they talked to scientists about the learning theory of "comprehension-intensive learning."

Knowledge Management Versus Portfolio: A Virtual Learning Environment as a Support

In NES, knowledge management procedures took the place of the portfolio. Knowledge management in the network was supported by the Thuringian school portal and a dedicated virtual learning environment, in which materials from the events were

archived electronically and made accessible to all participants. A knowledge management file was also stored there in which all participating schools, adding to their contact data and demographic information (e.g., number of students and teachers, pedagogical focus, and project participation), documented current or planned school development measures. In the sections "We are looking for" and "We offer" were listed as support needs and concurrently offered support for other schools in the network. Furthermore, the virtual learning environment offered the possibility of communication by allowing users to exchange information on self-selected topics.

Self-assessment and Feedback Through Evaluation and CPSM

One form of feedback was the development of a distinct feedback culture (e.g., evaluations). Another form was individual feedback through the Competence Profile of School Management (CPSM; Huber & Hiltmann, 2011; Huber 2013c; see also www.Bildungsmanagement.net/CPSM) and the offer to use the results as a basis for discussion (e.g., for extended school management).

Project History

Based on the evaluation results[1] on the plenary events, particularly on the further training events and the collegial consultations, and based on our observations, the following central experiences can be reported:

- NES was never rigid in its conception. Individual qualifications and support formats were emphasized more strongly in different temporal phases according to need.
- In the first phase, the focus was on professional development events in the classical sense. First, an overview of the different elements of school quality management was given, and central topics were addressed in an introductory way, partly by external speakers.

In the initial phase, some participants seemed to expect to receive information from external speakers in a strongly lecture-oriented manner. This phase was characterized by lectures as a form of one-way communication, the desire for as much accompanying written material as possible, and almost exclusively technical questions about theoretical models and concepts. The transfer and implementation of these theoretical models and concepts were the focus of group work. Initially, school teams were always designated for group work so that people from the same school

[1] Various forms of evaluation were used, such as event evaluations and annual interim evaluations based on short questionnaires with open and closed questions, individual and group interviews, and plenary discussions.

could work on questions of transfer and implementation at their school. However, there was rather little feedback on this implementation in practice, although attempts were made to take it up in plenary sessions.

In the second phase, three years after NES's inception, individual topics were extensively handled. This took place in very different formats. On the one hand, expert speakers conducted the theoretical treatment. Then, after the participants had explicitly formulated their needs, they were invited and prepared topics within the plenary event. The participants asked concrete questions and discussed theoretical models and concepts, depending on the context. The participants themselves conducted the theoretical treatment in the working groups. These were organized relatively autonomously and worked on by their own responsibility. The results of these working groups were presented and discussed in plenary sessions.

Eventually, and especially at the end of the official term, the participants increasingly demanded formats that emphasized learning from and with colleagues. Central to all formats was the wealth of experience of the schools participating in the network. The reason for the lively and profitable exchange of experiences was a certain heterogeneity of the group of participants. For example, the concepts, processes, and projects of the schools were regularly discussed in plenary sessions. The focus was on questions regarding implementation in school practice, feasibility, and consequences. The school teams worked out specific solutions for their school within the network, tested the developed measures in their school, and reflected on this work phase with colleagues from other schools so they could be developed further.

Over time, cooperation between individuals and schools was no longer merely encouraged but was increasingly pursued and even demanded by the participants. In this way, the participants' competencies could be better used and bundled, and the collegial exchange of experiences intensified so that the participants profited from each other beyond the pure qualification offers. At the end of the term, an intensive working atmosphere was perceived. The participants formulated their needs, registered them, and demanded solutions. The program of a plenary event was very dense; a qualification (half) day was very intensive. The reason for this was the noticeable increase in participant activity since the initial phase. The participants no longer perceived themselves as mere recipients but as actual experts for school quality who significantly (co-)determined NES's success.

Feedback on the Aimed Principles

The evaluation findings indicate that the aimed principles in NES—context, need, and transfer orientation—have been upheld.

- *Needs orientation:* The topics to be worked on were defined and determined by the participants themselves. This was considered extremely positive despite the strong reluctance of some participants in the initial phase, which was also noticeable until the end.

- *Application orientation/transfer and practice orientation*: The participants had many opportunities to reflect on their special skills and interests in the plenary sessions. Recognition and awareness of known measures and basic theoretical knowledge took place. The participants also rated positively that NES's offers were practice-oriented—they were geared to the reality in schools, and various suggestions were given for the transfer into school practice. The event-related evaluations were very good for the practical orientation—for example, almost 80% agreed with the statement "The contents were taught in a practice-oriented manner." More than 90% assumed that the knowledge and skills would be put into practice.

  Nevertheless, there was a wish for an even better dovetailing of theory and practice and an even stronger reference to practice. Concrete examples and concepts for implementation in school practice could and should have been given greater focus. For example, visits to other schools, which are regarded as examples of successful theory-practice transfer, and more school-related work.
- *Effectiveness and sustainability:* The participants saw NES as effective support and accompaniment for their school practice. Offers from other support systems were also increasingly demanded and taken up.

  Other aspects that were experienced as helpful can be derived from the evaluation results.

These are explained below.

- *Science and theory orientation:* The technical and theoretical preparation of the topics alongside the information transfer were evaluated. The topics were based on current national and international scientific findings.
- *Instructor orientation:* With more than 80% agreeing, the lecturers were assessed as well-prepared, professionally competent, and participant-oriented (allowing questions and answering them satisfactorily, helping participant motivation, and inclusion of all participants). This ensures that the instructors, as those responsible for the teaching–learning arrangement, did justice to their central importance for the quality of the continuing education and training measure. Concurrently, some participants wished that instructors would repeat less and give clearer work assignments.
- *Participant orientation:* The participants' skills and aspects of individual motivation were considered. Most participants could acquire new relevant knowledge and skills for school practice. Thus, selecting the course content corresponded to the participants' expectations in most cases.
- *Activity orientation:* The cooperation of all participants was high. The participants' activities were characterized by lively questions, lively technical discussions (both in the plenary and in group work), and a high level of participation in group activities. Nevertheless, the participants wished for more balanced participation of individual group members.
- *(Didactic) quality orientation:* The didactic and methodical implementation of the formats was assessed as meaningful. The organization was assessed as very

successful. The change of methods between plenary sessions, group work (school-specific and school-independent), collegial consultations, and the various possibilities for exchange and cooperation (e.g., group activities, time for professional and personal discussions alongside the distribution of helpful material) were positively assessed. When asked about suggestions for improvement, some participants argued for a smaller size of the participant groups. In addition, the participants wished for more (self-)discipline of all colleagues and thus more regular participation from the schools and their representatives, better time management, and stronger result organization.

Follow-Up

The participants' reflections on NES during its official existence resulted in a consistently positive picture, whereby an open and pleasant atmosphere alongside the intensive exchange of experiences across the school types was primarily emphasized. The term "network" was, after five years of cooperation, no longer just a title since mutual support and help took place and still takes place even after the official end of NES. This positive development was also perceived by those responsible for the organization.

However, we also must summarize that NES is no longer a cooperation project in the narrower sense, after the loss of common goals and a formal framework, i.e., the coordination and organization of learning events and the close scientific support and moderation by Stephan Huber. There still are isolated relationships at the individual or organizational level, but the network no longer cooperates in the way it used to.

Today, more than 10 years after the official end of the project, the participants who remain in school service still draw a very positive balance. A short survey concluded that, even in the informal way in which NES is practiced today (without state incentives), the various cooperative relationships that have emerged since 2006 offer lasting benefits.

Based on the network goals, the following sections can be summed up as the long-term benefits:

Cooperative Leadership and Cooperation in the School Are Essential

The schools involved each took part as a school team, mostly school leaders and deputies or a person from the extended school leadership team or the steering group. Today, many of these participants from the expanded team are school leaders themselves. For their own professionalization and the development of the competencies for educational leadership, networking is ascribed a great benefit up to this day.

Above all, it was helpful to make contacts, even as a junior manager, and to recognize opportunities to help shape the school at an early stage. School management is a collaborative task that must be carried out by far more than one person. However, overall, the interaction between the various leaders is decisive for ensuring and developing the quality of schools. The competencies for this must and may be continuously developed over time through qualification, reflection, exchange, and the like but, above all, actively taking on leadership tasks. Adding to being able and willing, it also needs to be legitimized (see Huber et al., 2015).

Cooperation Between Schools Enables New Perspectives

The cooperation among the Erfurt schools and the resulting diversity of perspectives—within and across schools—is, according to the former participants, certainly the greatest benefit that remains visible today. It is reported, for example, that the exchange in the network made it possible, for the first time, to gain insights into the organization and educational work of other types of schools in the local area. There were individual cooperation projects in which, for example, consideration was given to providing greater support for the transitions between different types of schools for pupils, thus making them smoother.

The trustful relationships in the network have also been shaping communication up to today. The predominantly short communication paths paid off, especially during the COVID-19 pandemic crisis. A principal in the survey also reported that all Erfurt school leaders of the vocational schools organized regular (informal) online meetings during the pandemic. Hochschild (2020) in an essay discussing operational school oversight states that "In this way, the school is changing, also externally, from a 'closed shop', which has to deal with problems alone, to a part of the community or the school environment" (p. 82).

Cooperation with Other Institutions Inside and Outside the School System

Cooperation among the former partner schools, the school supervisory authority, and the university in the local joint project no longer exists in that form. The network initiation in 2006 was primarily due to individuals who initiated and organized the network and who had the vision to recognize the benefits of such a school–university partnership. After these individuals left their school, or Erfurt, the incentives for this project could not be continued. Former participants would like further formal support as a school supervisory subsidy, including funding, to organize further training or observations. This path would offer the opportunity to strengthen school supervision in the modern role of "school supervisory authority" (Huber et al., 2020a, b; Huber,

2020a) that remains rarely practiced. In this role, offers are made to schools, different perspectives can be experienced in networks, and a trusting, collegial exchange on equal terms is made possible.

Conclusion

This evaluation of NES demonstrates two important considerations for educators' professional development training (Huber & Schneider, 2022), relating to demand, practice, and sustainability.

First, professional development must integrate diagnostic tools as a starting point for training and development programs to identify differentiated needs from which professional development goals and objectives are developed. To offer subject-specific programs tailored to the needs of individuals, groups or specific schools, the prior knowledge, subjective theories, attitudes, expectations, goals, and motivations of potential participants must first be identified. These form the starting point for planning professional development and the corresponding learning approaches.

Second, professional development must focus on practices to move from knowledge to action (see Huber, 2013c, 2020b; Huber & Hader-Popp, 2008, 2013; Wahl, 2001). This is necessary to get from theory to practice and to transfer what has been learned to everyday teaching.

Additionally, the NES evaluation offers valuable hints for the design of school–university partnerships in this or a similar form. An alternation between needs-oriented training in the plenary and other forms that promote cooperation appears to be central. The participants also benefited from sufficient opportunities to exchange experiences and to "think outside the box." Closely connected to this is the impact of a multiplier effect, in that positive cooperation experiences acquired outside of one's own school also positively affect cooperation in the schools, increase dialogue and exchange within the teaching staff, and thus contribute to the organizational development of the individual school.

In NES, it was possible to initiate and promote cooperative relationships consistent at various levels, especially cooperation between the management level/school leadership and cooperation between schools in the local environment. The important function of a "promoter," ideally the school supervisory authority who provides the organizational and financial framework and support, is—especially at the beginning and over a certain time—an important condition for success.

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Chapter 13
Ready for What?—Digital Readiness in Teacher Education: A Case Study of Professional Partnership in Northern Ireland

Stephen Roulston, Sammy Taggart, and Méabh McCaffrey-Lau

Context

Northern Ireland (NI) is part of the United Kingdom (UK), comprising a northern share of the island of Ireland. Whilst a relatively small country with a population of just 1.8 million, NI contains two main communities, the divisions between which erupted into conflict for 30 years from 1968 (O'Doherty, 2019). One community might be characterised as 'Catholic', many of whom identify as Irish and Nationalist in that they desire a reunification of the island of Ireland, whilst the other community might be described as 'Protestant', many of whom would identify as British and Unionist, wishing to retain the union with the remainder of the UK. It should be noted that the terms Protestant, British, Unionist and Catholic, Irish, Nationalist oversimplify a complex set of national and ethno-sectarian affiliations and are reductive, but nonetheless useful, labels.

The education system mirrors NI's societal divisions with schools largely divided along denominational lines. A Catholic Maintained sector is almost entirely attended by the Catholic community, whilst Controlled schools largely draw from that community which identifies as British and Unionist. At age 11, a process of academic selection injects further fragmentation with schools divided into supposedly more academic grammars and other, non-grammar, schools (Brown et al., 2022). Two further small but growing sectors are Integrated schools, where children from both communities are educated together, and Irish Medium (IM) schools with a largely Catholic intake, where the language of instruction is exclusively in Irish. Of the

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overall school population of around 330,000 attending around 1000 schools (Department of Education Northern Ireland (DENI), 2021), 93% are educated in schools attended mainly by those from the same community. Much of the research about Northern Ireland's education system has focussed on its divisions (Borooah & Knox, 2017; Gardner, 2016; Roulston & Hansson, 2021), and NI continues to be a contested space. Thus, despite the relatively small numbers of pupils involved, there is considerable complexity in school structures across NI. Gallagher has argued that "Northern Ireland has the smallest school population in the United Kingdom, yet its structural design is amongst the most complex" (2021, p. 147), and some of that convolution is replicated in divisions within Initial Teacher Education (ITE).

Conflict in NI largely ceased after the signing of the Good Friday/Belfast agreement in 1998. The agreement also established power-sharing and local administration in a Northern Ireland Assembly. This is a mandatory coalition of political parties from both sides of the divided society, with ministerial positions divided according to the number of seats held by each party. These are allocated in such a way as to ensure that both Nationalists and Unionists hold ministerial positions and that no single party can dominate. The political structures have proved fragile with the devolved government suspended on seven occasions since its establishment. At times, community relations too have been strained.

Many of these historical divisions and political arrangements might be considered peripheral to the current study, but they add deep-rooted complexities to partnerships within education. These include partnerships between schools and ITE providers which form the context for this study.

Partnership Between Universities and Schools in the Provision of Digital Skills

The focus of this chapter is the development of school learners' digital skills. It might be expected that the development of such skills would be supported and led by teachers who are innovators in the use of technologies in their pedagogy, having had their own skills developed and enhanced in ITE during their University courses in partnership with schools and, subsequently, in continued professional development (Department of Education Northern Ireland (DENI), n.d., a). Indeed, "knowing how to use technology effectively" (General Teaching Council of Northern Ireland (GTCNI), 2011, p. 27) as a teacher is a requirement in Initial Teacher Education. The partnership between ITE and schools is just one of many in NI's education system, but it is a crucial relationship which has the potential to make a profound difference to classroom experiences of learners and to enhancing their life chances.

Digital Provision

Curriculum developments, teacher professional learning and the evolution of digital education policy in NI have been characterised as being centralised and highly controlled, when compared to the situation in the Republic of Ireland, for instance, a separate country making up the remainder of the island of Ireland (Marshall & Anderson, 2008, pp. 469–470). Much of this is a consequence of channelling ICT provision to schools in NI through a single organisation from 1997. Rather than individual schools negotiating for ICT goods and services, C2k—originally known as Classroom 2000—was established to provide core ICT equipment and connectivity to schools. A Private Public Partnership (PPP), C2k is an example of an approach to finance which was proclaimed as an innovative mechanism for achieving high rates of funding for public services such as in education, although there has been increasing scepticism about aspects of PPP use (Stafford & Stapleton, 2017). Educational ICT provision through C2k is "based on a managed service which provides broadband connectivity, hardware and software off a single platform for every one of its 1200 schools, giving 330,000 pupils access to a common core of ICT services" (Austin & Hunter, 2013, p. 183). This included specialist software for school administration, such as for recording and monitoring attendance, and software which could be used across subjects to enhance learning and teaching, in addition to subject-specific software. The Department of Education in NI (DENI) report that, since 2000, over £630 million has been spent on classroom infrastructure, "…making Northern Ireland a recognised leader in the use of ICT in education" (DENI, n.d., b). In 2019, £30 million was still being spent on C2k annually, the equivalent of £85 per pupil (Austin et al., 2020, p. 42).

The reasons why NI developed centralised and well-funded digital support for schools from 1997 are complex. There had been an earlier economic impetus towards developing ICT infrastructure and skills to compensate for the declining traditional heavy industries on which NI had been particularly dependent (Northern Ireland Economic Council (NIEC), 1989), and this resulted in organisational and infrastructural configurations which eventually facilitated the emergence of C2k. Additionally, a combination of the signing of the peace agreement in 1998 alongside the election in 1997 of a Labour Government with its emphasis on education is viewed as crucial in promoting ICT in education in NI (Austin & Hunter, 2013, pp. 183–184). NI was under Direct Rule from the UK before the devolved assembly was established in 1998, and it is speculated that, with a weakened political base unable to mount a coherent opposition, NI was used as a "…social laboratory for testing innovative approaches to social policy" (Austin & Hunter, 2013, p. 185). The inertia initiated by such lavish investment has left the legacy of a centralised managed service of ICT deployment across NI schools, and subsequent local education administrations have maintained this centralised system.

Policy

Another driver shaping the partnership between schools and ITE may have been policy change in education with "an extended ICT strategy for its schools" (Austin & Hunter, 2013, p. 183). There had been an Educational Technology Strategy in 1998 (Department of Education Northern Ireland (DENI), 1998) but a new strategy, *em*Powering Schools (Department of Education Northern Ireland (DENI), 2003), redefined the professional ICT competences required of all staffs in schools (Austin & Anderson, 2008, p. 53). This strategy was seen to provide a "broader vision and a framework for action planning until 2008 within a context of transforming education in Northern Ireland by 2020, whilst seeking progress towards a unified e-learning strategy" (Uhomoibhi, 2006, p. 6). The *em*Powering Schools strategy was claimed to "give a clear steer to…ensure that young people have the skills needed to be economically active in the global knowledge economy [with] skills and activities match[ing] what employers want" (Austin & Anderson, 2008, p. 146). Austin and Hunter (2013) also believed that a steady move towards compulsory assessment of ICT in the NI curriculum was another crucial influence on uptake.

Educational Provision in Northern Ireland

There are a myriad of organisations in Northern Ireland education, at least partly because of unnecessary duplication of provision (Northern Ireland Affairs Committee (NIAC), 2019). The OECD (Fitzpatrick, 2007), whilst discussing school leadership, noted that the education system in Northern Ireland's education system:

> is complicated in that there are many component parts, areas of responsibility, policy and influence, that impact on current schooling and future perspectives for education [and] is complex in that although the system works and is generally held to do so in a way that has produced a high level of public confidence; it has within it a number of tensions or even contradictions (Fitzpatrick, 2007, p. 88).

Many of those tensions and contradictions emanate from the history and the fragile state of government in NI, and this can be held to permeate even into the provision of ICT within schools and in the partnership between ITE and schools.

Complex systems are challenging to operate within but, paradoxically, the complexity of organisational structures in education in NI means that, for effective operation, partnership working between organisations becomes even more important than it would be otherwise. There are three main levels of influence on schools and, ultimately, on learners (Fig. 13.1). At a strategic level, government departments develop and deploy policy as well as determine the level of financial input. This generally works best with political consensus, but that has been in short supply in Northern Ireland, even since the Good Friday/Belfast Agreement, and political divisions continue to curtail much of the innovation that otherwise might have been implemented. Some commentators bemoan "a noticeable failure in official policy

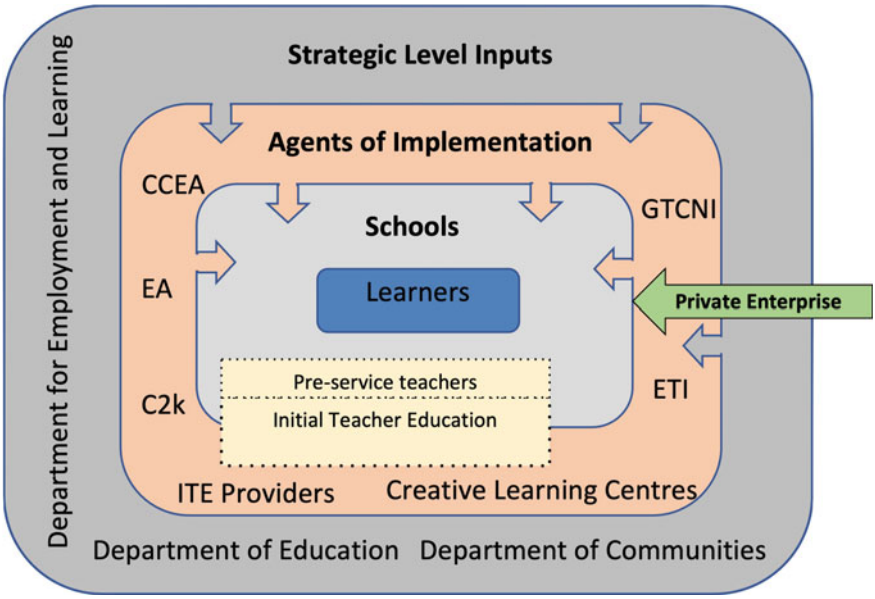

Fig. 13.1 Educational structures in NI relating to ICT in schools

discourses in Northern Ireland to embrace modernisation agendas, both in substantive policy issues and in public service delivery" (Birrell & Heenan, 2013, p. 779). Wilford describes a political system which "enabled ministers, sequestered in their departmental silos, to go on solo runs" (Wilford, 2010, p. 141), which almost inevitably led to fragmented policy delivery across government departments.

There are three main governmental departments which have a strategic role in education in Northern Ireland:

- **the Department of Education** provides funding for schools including teacher salaries and capital and recurrent costs. They are responsible for education from pre-school (3–4 year olds) to post-primary schools (11–16/18 year olds). They are also responsible for schools which cater for learners with Special Needs. Amongst other functions, this department determines policy and frames legislation for schools as well as monitors the effectiveness of education provision;
- **the Department for Employment and Learning** is responsible for, amongst other duties, policy for Further Education—effectively Universities and University Colleges, including ITE (DfE, n.d.), Higher Education, skills and training and employment rights;
- **the Department of Communities** have responsibility for housing and employment services and culture, sports and leisure across Northern Ireland, but they also fund Creative Learning Centres. These Centres aim to develop digital literacy skills by providing programmes for teachers and young people in order to increase understanding in creative technologies and to encourage new approaches to learning in the classroom.

Whilst a division of responsibilities between a range of government departments can cause issues in ITE, with, for instance, school policy determined by a different department to that responsible for Universities, and thus, ITE, the real complexity emerges in the second level, the implementation layer. Here, ITE operates alongside other bodies influencing provision in schools, including that for ICT.

The General Teaching Council for Northern Ireland has established core competencies for teachers (General Teaching Council of Northern Ireland (GTCNI), 2018), which ITE providers are charged with beginning to develop in pre-service teachers, with schools working in partnership during pre-service teacher placements. This process is then continued through a highly structured programme of Induction and Early Professional Development. C2k provides hardware and connectivity to schools, through the managed service, and the Council for Curriculum Examinations and Assessment (CCEA) develops and assesses teaching specifications and outlines a programme of compulsory ICT skill development for all schools (Council for Curriculum, Examinations and Assessment (CCEA), 2020). Partnerships between these organisations are essential to ensure that the needs of assessment are met by appropriate ICT provision and vice versa. The Education and Training Inspectorate has an evaluative function, reporting on the effectiveness of provision and delivery within all schools and also within ITE. A single Education Authority oversees the running of the system, although there is a separate body for Catholic Maintained schools and others for Integrated and IM schools. Whilst these government organisations, alongside non-governmental bodies, do much of the groundwork ensuring that the education service works as well as possible, there is also an increasing presence of a third level: private enterprise. Whilst present at least since C2k was established as a PPP, private enterprises continue to operate directly with schools to supplement or to provide alternatives to C2k provision. This has taken the form of hardware and software providers who see a ready market in Northern Ireland's schools. All these myriads of agents impact on schools and, through schools' management structures, on teachers and, ultimately, learners.

The school–university partnerships between University ITE provision and schools have an impact as well, with ITE providers relying on schools to accept pre-service teachers on School Experiences and teachers working alongside ITE tutors to enhance classroom practice, including the development of ICT skills. However, despite all these bodies offering support for ICT enhancement of education, there still appear to be large gaps in the incorporation of ICT into many schools.

The Role of Teacher Education

In Northern Ireland, there is a multiplicity of teacher education providers, and some have been divided along denominational lines in the same way as schools (Milliken, 2020). Of the four different providers of ITE in NI, two are relatively mixed in terms of community intake between Protestants and Catholics, whilst the other two have largely served their own communities, although there is evidence that one

of them is widening its intake (Bagley, 2019). However, all ITE is completed in one of the two universities in NI, or in former Teacher Training Colleges, now affiliated with one of the universities as University Colleges. There are two main routes into teaching: a four-year undergraduate degree or a one-year post-graduate qualification, both of which lead to qualified teacher status. Both routes build upon long-established and strong partnerships between ITE providers and schools, with school-based placements for pre-service teachers used to supplement the taught part of the ITE courses. Thus, the development of skills, including ICT skills, is shared in a partnership between ITE and mentors in schools.

There have been some challenges in providing school-specific ICT skills in ITE. Marshall and Anderson (2008) detail the impressive injection of ICT equipment, connectivity and technical support that the C2k managed service provided for schools in NI. However, ITE was omitted in much of the initial rollout of C2k, which prioritised instead the equipping of schools. There was recognition that this would be an issue, and "as C2k was being planned and rolled out to schools, the providers of ITE campaigned government for matching hardware and software" (Austin & Anderson, 2008, p. 71). Without that, it was argued, it would be impossible for ITE providers to give access to an experience that would replicate the common core of C2k provision in schools, leaving pre-service teachers ill-prepared when they entered school placements and, eventually, employment. This would challenge the ITE-school partnership. Despite pressure to include ITE in provision, it took seven years for pre-service teachers to get access to similar systems to those in secondary schools, for example. Austin and Anderson (2008) identify this as "…a key lesson", arguing that ITE providers do not have the funding which would allow them to match C2k's ICT provision. These deficiencies in ITE provision are, arguably, another indication of the inertia which followed the initial policy and financial commitment to C2k.

In 2003, recommendations were made that the online education skills of teacher educators in ITE contexts should be developed (Department of Education Northern Ireland (DENI), 2003), but more recent research in NI suggests that, almost two decades later, many teacher educators—those who help to develop the skills and attitudes of the teachers of the future—still do not feel fully supported in developing the digital skills of pre-service teachers before they enter NI's relatively ICT-rich education system. Whilst there is evidence of pioneering practice in some areas (see Farrell et al., 2022), some research reports that many Teacher Educators appear to be working at a basic skills' level (Roulston et al., 2019). Galanouli and Clarke (2019), in their work in primary education, also recommend that ITE providers should review their preparation of the ICT skills of pre-service teachers. This is a worrying finding as "teacher educators must model appropriate technology integration strategies for teacher candidates in courses, so the candidates in turn can effectively teach with technology" (Foulger et al., 2017, p. 419), and this is a key aspect of the partnership between ITE and schools. Indeed, a 2018 consultancy report comparing digital education provision across the UK and Ireland identified that Northern Ireland and England were the only regions not to specifically review ITE accreditation standards for ICT skills, recommending that a "detailed review and action plan" is needed

(RSM, 2018, p. 43). It may be that patchiness of ICT skills amongst Teacher Educators in NI has contributed to variable levels of preparedness for pre-service teachers incorporating ICT into their classroom practice (Austin et al., 2018). Cowan et al. (2020) found that:

> pre-service teachers often reported that they had been surprised, and sometimes a little overwhelmed, by the wealth of ICT which could be used to support learning and teaching. This was not always addressed effectively in ITE provision and whether a student had an ITE practice tutor that was proficient, or enthusiastic in the use of ICT, was 'random'. (Cowan et al., 2020, p. 42)

History of Support and Ambition for Partnership

ICT competences for teachers have been encouraged in two main ways in NI: the development of a competence framework and a widespread training programme. The General Teaching Council of Northern Ireland (GTCNI) developed a competence framework for pre-service teachers and teachers, which has been updated regularly with the most recent revised in 2018 (General Teaching Council of Northern Ireland (GTCNI), 2018). The move towards a competency model initially attracted criticism as part of a neo-liberal and neo-conservative approach to education (Hagan, 2013), but GTCNI, in an earlier edition of the document, is at pains to stress that the list of competences is not intended to be reductive as "the reality is that it is concerned with values and professional identity as much as knowledge and competences" (General Teaching Council of Northern Ireland (GTCNI), 2011, p. 13).

The framework, however intended, includes competences in ICT use for teachers at different stages—in ITE, in the first year of teaching (Induction), in two subsequent years (Early Professional Development) and for the remainder of their teaching careers (Continued Professional Learning). However, the thrust of these competences suggests limited expectations for what is required to be deemed competent in the use of technology as a teacher. For ITE, for example, one of the aspects of the competence currently required is a knowledge of "how to use word-processing, databases and spreadsheet packages, email and the internet as professional tools" (General Teaching Council of Northern Ireland (GTCNI), 2018, p. 27). This is virtually unchanged from the requirements produced in 2005 (General Teaching Council of Northern Ireland (GTCNI), 2005, p. 54), with only CD-ROMS, digital cameras and tape recorders removed from the range of technologies that pre-service teachers were expected to master, and a few other cosmetic changes. Additionally, knowledge of e-mail and the internet is the only reference to the potential of connectivity in education, even in the current version of the competences, which are largely unchanged since 2005. This might be regarded as a limited ambition for pre-service teachers and for the tutors who are expected to develop such competences in these teachers-to-be. Further, the competence development expected in more established teachers seems not to reflect recent technological changes, its pervasiveness in wider society or its potential to impact on learning and teaching. It is clear, with decade-old calls for it to be elevated

to the same status as numeracy and literacy (Selwyn, 2011), that young people in schools require digital skills, but the shortcomings in this aspect of the competency model poses challenges to the partnership between ITE and schools. At the very least, as a 2018 report recommends, teaching competencies should "incorporate additional detail to ensure teachers are aware of what is expected from them in relation to digital competence" (RSM, 2018, p. 8), which would ensure that Initial Teacher Education providers deliver their side of the partnership arrangements of preparing pre-service teachers effectively.

The second response to the perceptions of teachers' poor preparedness to embed new technologies into their practice was a training initiative for teachers rolled out across the UK from 1999 to 2003. Named the New Opportunities Fund (NOF) after its charitable funders and its PPP ethos, it "was designed to raise the standard of pupils' achievements in UK schools by developing the ICT expertise of serving teachers" (Galanouli et al., 2004, p. 64). Indeed, Austin and Anderson (2008) state that the intention was to raise serving teachers' ICT skills "to a level in the use of ICT then expected of newly qualified teachers" (Austin & Anderson, 2008, p. 45). The overall cost of the programme is put at £230 million (Conlon, 2004) and Austin and Anderson (2008) report that £10.8 million was allocated to NI. There have been markedly different estimations of the effectiveness of the programme. Whilst acknowledging some criticisms, Austin and Anderson (2008) nonetheless argue that the approach in NI was pedagogically sound and stress that participation rates there were the highest in the UK. Whilst noting that the rollout of C2k equipment to primary schools coincided with the NOF training, they concede that a lack of coordination in that regard for secondary school teachers led to a less positive outcome for that group but, overall, conclude that:

> the most significant impact of this program was to shift the professional knowledge base to a point where using digital technologies to support learning, teaching and professional practice had come to be seen as the new norm for all, with ICT no longer seen only as a select subject for specialists and some pupils (Austin & Anderson, 2008, p. 50).

Critics of the programme, on the other hand, suggest that NOF was less successful. Galanouli et al. (2004) report that their survey of teachers in Northern Ireland highlights "the lack of time given over to it, the exploitation of teachers' own time and expense and the lack of technical and social support, and good equipment and resources" (Galanouli et al, 2004, p. 76). There have been criticisms of its implementation across the UK; indeed, it was blamed for increasing the digital divide amongst teachers (Beastall, 2006). Conlon (2004), reflecting on NOF training largely in England and Scotland, catalogued a series of fatal errors including a lack of pedagogic focus in the training and concluded trenchantly that it did not impact positively on pupil achievements: "Teachers' classroom practice has been not much changed by their NOF training… in general, the link between schools' development of new technology and pupils' academic achievement is tenuous" (Conlon, 2004, p. 136).

NOF training, the development of teacher competency frameworks and the rollout of computers, software and connectivity to schools by C2k were enacted close together, although partnership linkages were less obvious. Close on their heels came a

development of the existing Educational Technology Strategy, the 2004 *em*Powering Schools strategy, with a bold vision of transforming education including developing "e-confident teachers and support staff, who can effectively deploy education technologies in a range of approaches to teaching, for the benefit of all learners" (Department of Education Northern Ireland (DENI), 2004). This strategy established a series of milestones for schools and for the wider education system to be achieved by 2008.

Some milestones anticipated more online learning with the desire to see all primary pupils having "the experience of working online with other children in their own location, and at a distance, on a common educational project" (Department of Education Northern Ireland (DENI), 2004, p. 13). Before completing compulsory schooling at age 16, there was a milestone that all pupils should take "at least one course containing online assessment and an accredited online component" (Department of Education Northern Ireland (DENI), 2004, p. 13). Targets were set for the establishment of pupil and teacher ePortfolios. However, in spite of these ambitious goals, the progress in equipping schools and providing them with high-speed internet access, and the attempts to develop teacher skills in ICT through the NOF programme, the strategy recognised that "competence generally still needs to be raised further for every staff member" (Department of Education Northern Ireland (DENI), 2004, p. 18). In the only and last update on the progress of *em*Powering Schools strategy in 2005, a concern was raised that "the return on investment in ICT, as measured by better breadth, wider uptake, improved performance and raised standards, remains at risk" (Department of Education Northern Ireland (DENI), 2005). It was also acknowledged in this key policy document that there are important gaps in the evidence reported and yet no further updates or evaluations have been completed. This inactivity unfortunately represents a critical gap in the understanding of the development of ICT for and in schools and ITE providers since 2005.

Forecasting technological change is not for the faint-hearted, and it is easy to find unrealistic aspirations in a document which is almost 20 years old. The reason we highlight it here is that this is the sole ICT strategy in Northern Ireland. Despite its dated content—ePortfolios in Northern Ireland were not implemented and are not currently being pursued, for example—this strategy has undergone neither revision nor replacement. Effectively, for much of the last two decades, the education system in NI has been operating with no current strategy, no targets appropriate for the needs of present-day education, and in a vision vacuum. There is much work going on in Northern Ireland in ICT in learning and teaching which is excellent, but much of it appears to be developed from the ground up in collaborative practices (McElearney et al., 2019) employing the advantages of grassroots' professional development (Holme et al., 2020) but in the absence of formal partnership arrangements. There are advantages to approaching change in that way, and top-down initiatives, such as in the NOF-funded training, can present many disadvantages. However, from whatever direction change is implemented, it would be advantageous to have a shared direction, and a vision which, even if not fully agreed, is at least articulated, discussed and understood, ideally designed and delivered within strong partnerships such as those between schools and ITE providers. Northern Ireland has ICT-rich schools and, despite many challenges in education, "the system continues to work

very well for tens of thousands of learners" (Education and Training Inspectorate (ETI), 2018, p. 10). There are pockets of outstanding practice where teachers and teacher tutors in ITE are making the most of that technology (Austin et al., 2020), but there is also evidence that there are classrooms and parts of the ITE landscape where technology is less used, where innovation in technology plays little part and where "interaction with technology tends to be predominantly trivial" (Education and Training Inspectorate (ETI), 2018, p. 43) and, presumably, where partnership is weakened as a result.

The COVID-19 Partnership Stress Test

The contingent and uncertain process of education throughout the critical global incident of the COVID-19 pandemic has stress-tested educational partnerships and digital capabilities internationally. In NI, like much of the developed world, education became an emergency matter and digital technologies were heralded as a front-line emergency service (Williamson et al., 2020). Despite the commendable, first-response efforts of many teachers (Roulston et al., 2020), the inequalities and structural and strategic weaknesses of the education system in NI have been thrown into sharp relief. This is a function not just of learner engagement or access to the bandwidth and hardware *at home*, but it depends also on who, *within schools*, has the digital and pedagogical skills to direct learning and teaching through, oftentimes, purely digital means. Whilst this chapter does not aim to provide an analysis of the partnership interface during the entire COVID pandemic, an analysis of the experiences of *serving* teachers during the initial phase of lockdown and school closure between March and June 2020, as products of the partnership, provides a useful lens to review the longitudinal outworking of the partnership between ITE and schools.

Pre-service teachers' ability to digitally dovetail into schools' emergency responses might have been expected to be more coherent, given the level of ICT competence that is expected of them. With the introduction of the C2k-managed service, ITE providers have had access to, at least, the software tools provided to schools since 2001 in primary schools and 2005 in post-primary (Austin & Anderson, 2008). More recently, this includes a system-level access for pre-service teachers, as partners, to region-wide soft infrastructures of MS Teams (MST) and Google Gsuite (GS) and Collaborate Ultra (CU). The seamless integration of pre-service teachers on placement was, however, somewhat less fluent, with many schools, for numerous reasons, opting for non-standardised communication and learning platforms when the pandemic forced school closures. In schools' responses to ensuring continuity of learning and teaching during the COVID-19 pandemic, O'Connor-Bones et al. (2020) identify that 87% of post-primary and 67% of primary children's parents accessed resources to support education through virtual learning platforms. However, the use of C2k's centrally procured and managed services was less pronounced. McCaffrey-Lau et al. (2021) report, for example, that 18% of teachers surveyed were using

MST and 40% using GS, whilst "Collaborate Ultra (CU), a web-conferencing solution built for education and training, was only used by 4%" (2021, p. 28). Of the teachers surveyed, 16% reported using Zoom, despite reported safeguarding concerns surrounding "zoom-bombing" and online classroom hijacking (see Setera, 2020). Social and personal communication tools such as Facebook, Twitter, WhatsApp and text messaging are also featured as tools to 'facilitate remote learning activities' during periods of extended school closure. The Education and Training Inspectorate reports on some moderation of this diversity of digital tool-selection throughout the pandemic saying, whilst:

> schools have streamlined from the use of multiple platforms in favour of a single platform used across the school and/or key stages. […] there are instances where individual departments opt for different platforms which they find more suitable for subject-specific content and approaches (Education and Training Inspectorate (ETI), 2021, p. 3).

This has been a longstanding agitation at the interface of ITE and School partnership in NI, where the opportunities and challenges associated with digital diversification and progression in schools must be balanced against baseline preparedness and competence as targeted within ITE. Over a decade ago, in an initial evaluation of online learning environments across stakeholders in NI, ETI reported:

> the providers of initial teacher education work hard to develop skills in the use of LNI [a regional VLE and predecessor to CU, MST and/or GC] by student teachers. […] The lecturers report that the skills, for the most part, are transferable and the student teachers "move relatively seamlessly from one [VLE] to another" (Education and Training Inspectorate (ETI), 2008, p. 18).

This highly diverse provision, whilst potentially cultivating opportunities for innovation or tailored provision (Devitt et al., 2020), presents challenges for learners and parents. One NI study reported parental concern where school communication was via "emails to my child and via online chats on MS Teams and Google Classroom… too many different channels make things more complicated than [they] need be" (Roulston et al., 2020, p. 39). In addition to the flexibility of platform used, Roulston et al. (2020) also argue that "the collective school community, teachers, parents, and learners, were often left to set their own standards of participation" (p. 46).

This is now a long-established challenge in the context of NI schools. Schools largely have the hardware and the infrastructure necessary; however, "despite the significant investment over a long time period, the potential for making effective use of ICT and learning environments to enhance the quality of the educational experiences for the majority of pupils has not yet been realised" (Education and Training Inspectorate (ETI), 2010, p. 8).

NI's relatively generous hardware and infrastructure endowment through C2k, alongside under-provision of a more strategic preparedness, is reinforced more contemporaneously by the National Foundation for Educational Research (NFER) who attest:

> generally, principals in Northern Ireland reported that their schools were less prepared to enhance learning and teaching using digital devices than schools across the OECD, although they had a greater number of computers per pupil than the OECD on average (National Foundation for Educational Research (NFER), 2019, p. 6).

Recognising the gap in teacher preparedness and the variability that emerged regarding the learning experience on offer from schools, it is apparent that inequalities in access persist. Commentators on the digital divide advise that physical access to ICT is not enough (Van Dijk, 2020; Helsper, 2021). To improve access, future partnerships should increasingly focus on the development of appropriate ICT skills and the motivation to use technology purposefully, where benefits for both teacher and learner are accrued from this knowledge and access.

The previously highlighted and enduring lacuna of system-led professional development remains endemic despite ETI's assertions that "more teachers need to learn to develop their digital skills in order to better prepare their pupils for the increasingly digital society they inhabit" (Education and Training Inspectorate (ETI), 2018, p. 43). McCaffrey-Lau et al. (2021) identify that, of the sources of support and/or training for digitalisation used during the pandemic, only 1% of teachers accessed support from the Department of Education, 3% from the Education Authority and 10% from professional support bodies such as C2k. Instead, 87% of teachers identify *colleagues* as their source of support. Undoubtedly, this collegial partnership in schools is admirable and by commission or omission doubtlessly aligns with ambitions for distributed school leadership espoused within the Learning Leaders Strategy "to empower the teaching profession to strengthen its professionalism and expertise" (Department of Education Northern Ireland (DENI), 2016, p. 4). However, as McCaffrey-Lau et al. note, teachers were vocal about their dissatisfaction regarding the guidance and support they received, and many were unhappy with the feeling of being "on their own" (McCaffrey-Lau et al., 2021, p. 61). The strategic vision and sustainability of such bottom-up initiatives are less obvious and may present significant challenges to the practical long-term delivery of working partnerships across the educational landscape, including at the ITE-school interface.

This lack of systemic capacity to maximise the affordances of educational technologies is highlighted by McCaffrey-Lau et al. (2021) in their assessment of teacher experiences during periods of school closure due to COVID-19. The harbingers of this strategic and professional learning challenge, including Galanouli et al. (2004), could not have predicted the universal trauma that would be inflicted on the system by such a global pandemic. Nonetheless, their calls for transformation have, pre-pandemic at least, only been faintly heard. Whilst "online teaching and learning is neither inevitably transformative nor necessarily deleterious to […] the working conditions of staff, or the experiences of students" (Williamson & Hogan, 2021, p. 4), the global experiment in online education has offered significant opportunities for systemic learning, not least, the necessity of professional partnerships across education prioritising the mitigation of digital exclusion factors. As Helsper asserts: "those who have been historically disadvantaged face tougher odds. They are less likely to translate ICT use into high-quality educational outcomes and are more likely to have negative experiences with online learning" (Helsper, 2021, p. 93).

Half a century of educational technology and teacher education research has focussed largely on factors influencing teachers' digital literacy, fluency and competence, whilst experiences throughout pandemic schooling have shown that more is to be expected around online connectivity and home-school relationships. To date, COVID-19 has served as an admonishment to the most ardent of ed-tech evangelists as to the very human nature of schools and should provide a critical inflection point where there is a strategic reimagining of how to best prepare and support our teachers' digital capabilities—starting at the partnership at the interface of ITE and schools and fostered throughout career-long professional learning and shared practice.

Conclusion

COVID-19 has the potential to serve as a reflective trigger point to consider the probable, possible, plausible and preferable digital futures of educational technologies (Selwyn, 2020) as ITE and school partnerships are discussed, redesigned, invested in and potentially reimagined. The partners discussed within this chapter exist in a symbiotic relationship, and yet, there has been no vision to ensure that this partnership delivers the soft end of driving the affordances of ICT in education. There is 'kit', connectivity and software, but there has been insufficient attention to the skills' deficit.

Looking ahead and utilising Selwyn's (2020) probable, possible, plausible and preferred framework, in all *probability*, the *sustainability* of this partnership is not in question: schools will continue to need teachers, at least given the strong argument for teaching to remain an essentially human process (Selwyn, 2019); teacher education will persist and teachers will invariably continue to teach. It is, however, *possible* that factors affecting the *quality* of the partnership and its associated impact on learners in NI may indeed benefit from a creative, post-pandemic reimagination. A newly qualified teacher, leaving a teacher education course in 2021 or 2022, graduates with an experience of digital pedagogies which is unrivalled by pre-COVID graduates. Never before have whole swathes of pre-service teachers, or their ITE tutors, engaged with blended, remote and digital learning and teaching so extensively. However, there may be considerable benefit for NI and elsewhere to systemically capitalise on such exposure to digital skill development.

It is perhaps even *plausible*, given the mounting body of research evidence, that the government will now move to develop a more coherent partnership towards ICT embedding, and also more widely, to maximise the potential gains. It could also be plausible, in the most optimistic of quarters, that the fragmented and expensive education system within NI with its numerous, deeply seated challenges and inefficiencies could be swept away on the back of such evidence and in emerging political zeal after the imminent Independent Review of Education in NI. A commitment to such a review was unanimously agreed by all political parties in NI in their support for *New Decade New Approach* (Northern Ireland Office (NIO), 2020), a document which brought the NI government back after a three-year hiatus, until the devolved

government collapsed again in 2022. *New Decade, New Approach* pledges politicians to conduct a radical examination of the current education system in Northern Ireland and provides the possibility of the current education arrangements being replaced with a more streamlined and coherent system. Moreover, partnership could plausibly be strengthened across all aspects of provision which is less fractured, alongside a more fluent integration of Educational Technologies at ITE, in schools and throughout teachers' careers.

It is, nonetheless, an opportune time for reimagination and ambition in consideration of strategically considered, *preferred* futures of educational technologies and digital skills at the ITE and school interface. Selwyn et al. (2019) attest that "confronting and reconstituting these digital education futures would require the distributed efforts of loosely 'coordinated' multiple agencies around various visions of social futures" (p. 16). There is work to be done in maximising the digital ambitions of GTCNI teacher competences with ambitious objectives to guide the development of pre-service teachers' and in-service teachers' digital capabilities, a collaboration best done in partnership. Secondly, the university–school partnership interface should be positioned as the first step in a strategically aligned model of a sustainable, career-long, ITE to retirement, cradle to grave professional learning pathway. This must be explored and implemented, engaging teacher groups, many emerging from the networks of support crystallised during the pandemic, and system-level leaders, involving both re-established and new partnerships. Finally, the ambitions espoused within *em*Powering Schools in 2003 need to be reinvigorated in a fit-for-purpose, regional educational technology strategy for NI schools with statutory obligations compelling key stakeholders to develop strong partnerships aimed at delivering, evaluating and revitalising digital skills progressively and attuned to labour market demands. COVID-19 has brought misery to many communities and to many individuals and families, and the world economy may take years to recover. However, it has helped those involved in education to focus on deficiencies in educational systems and it may just herald a renewed focus on the importance of partnerships to ensure that both schools and the universities that educate the teachers—those individuals who will define schools for decades to come—more fully embrace the digital world to the benefit of learners.

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Chapter 14
School-University Partnerships: Moving Towards Transformation

Daniela Acquaro and Ondine Jayne Bradbury

The development of this book emerged from our work leading and researching school-university partnerships and the intersections with colleagues around the world similarily leading and researching school-university partnerships. We were driven by a desire to bring together these global examples to challenge how school-university partnerships are conceptualised in teacher education. We commenced our journey with the provocation that partnerships in teacher education could in fact be more and offer more, and as we end our journey through this edited book, we have seen the breadth of possibilities for school-university partnerships across the globe. We conclude now by drawing together some understandings that have emerged from this collection and explore how these ideas can provide insight into how partnerships can become transformational for all stakeholders involved. We depart by revisiting what we know, what our journey across each continent has taught us and where to from here for school-university partnerships in teacher education.

What Do We Know?

Although the advantages of partnership in advancing innovation and development have long been advocated, teacher education has been slow to explore these opportunities beyond professional experience opportunities for pre-service teachers (Goodlad et al., 2004; Ladson-Billings & Gomez, 2001; Manton et al., 2021; Walsh &

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Backe, 2013). Farrell (2021) attributes the underuse of partnerships to confusion about what they entail and how best to maximise them, suggesting "current international policy documents on teacher education are peppered with the word partnership and there seems to be an assumption that there is a common agreement regarding understandings of "partnership" (Farrell, 2021, p. 1). Despite the natural connection between schools and teacher education, partnerships remain narrow in their focus without a real sense of their potential or impact on all stakeholders (Manton et al., 2021; Walsh & Backe, 2013). The transactional nature of school-university partnerships has precluded authentic collaboration and the possibility of transformational impact for both schools and universities.

A decade ago, in Australia, the Teacher Education Ministerial Advisory Group (TEMAG) (2014; House of Representatives Standing Committee on Education and Vocational Training, 2007) specified that, "close working relationships through effective partnerships between initial teacher education providers and schools can produce mutually beneficial outcomes and facilitate a close connection between teaching practise and initial teacher education" (p. 25). Farrell (2021), however suggests that while "this is accepted in principle, the practise of operationalising school-university partnerships and of optimising learning through such partnerships can be esoteric" (p. 2). Farrell (2021) argues that although school-university partnerships are essential in teacher education, how this is best achieved is little understood, as policy documents are ambiguous and lacking detail. Jones et al. (2016) suggest that there have been perpetual concerns regarding national and international notions of quality of teacher education. As a result, universities are being challenged not only to increase the effectiveness and design of the learning experiences they provide but also to rethink how they connect with schools in their teacher education programmes. (Jones et al., 2016). Their proposed framework to inform partnership practise resonated with us as it identified the typology as: "connective, generative or transformative" (Jones et al., 2016). Akin to a transactional approach, they posit that *connective* partnerships stem from a particular need to have with a "win–win" outcome with little engagement or impact attained beyond "one off" or "short term" outcomes. *Generative* partnerships, meanwhile, "generate new practise" requiring the adjustment, modification or development of programmes. However, it is transformational partnerships that "emerged from evidence of schools and/or universities transforming their practise as a result of learning through the partnership" (Jones et al., p. 115).

What Have We Learned?

We propose that we live in times where partnerships have the capacity to, and the need to be, transformational. Transformation through school-university partnerships is not well explored in the literature and is poorly understood in the field. Emerging from the collection, we propose that the notion of transformation can be associated with the concept of the "third space" (Ziechner, 2010), where boundary crossing becomes the norm between partners, and the third space symbolises the growth emerging from

the partnership. We have seen that the "third space" becomes a lived space where partnerships create deep learning that leads to change not otherwise possible without the partnership. Within this "third space" collective expertise pushes the partnership beyond transactional milestones to shifts in productivity within cognitive aspects, and teaching and learning interventions (Maheady et al., 2016). Conversely, these shifts in partnership productivity have the potential to decrease due to difficulties in coordination and communication between partners (Becker & Murphy, 1992; Jensen & Meckling, 1992). We propose that collaboration is essential for transformation to take place. Stibbe et al. (2019) suggests that "collaboration across societal sectors has emerged as one of the defining concepts of international development in the twenty-first century". However, collaboration within transformational school-university partnerships necessitates expanding beyond shared ways of working (Gorris-Hunter et al., 2022). Collaboration implies interdependence among stakeholders, constructive handling of differences, joint ownership of decisions and collective responsibility of outcomes. Fostering effective collaboration requires trust, communication and commitment to the partnership by all stakeholders; with associated shared and agreed upon goals, roles and responsibilities (Hargreaves & O'Connor, 2018). "In this way, the partnership is able to make the benefits of collaboration visible and felt, thereby promoting continued collaboration" (Walker, 1999, p. 301).

We also propose that (2010), a transformational partnership can be aligned to partnerships with a moral dimension, where partners are motivated by a common purpose and where they "create the possibility of generative growth and change through mutual interaction as they apply their resources to addressing complex problems" (Butcher et al., 2010, p. 31). In this instance, school-university partnerships can create opportunities for community engagement and service. By working together, educational institutions can identify local needs and develop initiatives to address them such as environmental conservation, public health, literacy, or poverty alleviation. Through community service, a sense of social responsibility is developed. This engagement also helps to bridge the gap between academic learning and real-world application, promoting a holistic education that prepares students to become active and engaged citizens. By nurturing a culture of collaboration and innovation, this transformative alliance can inspire a broader cultural shift towards a more educated and socially conscious society. It can foster a sense of collective responsibility for addressing societal issues and encourage individuals to become lifelong learners, engaging in ongoing personal and professional development. Transformation in partnerships is also aligned to transformational leadership which has at its core shared vision and goals and a capacity to "be innovative problem solvers" (Butcher et al., 2010, p. 31), as well as fostering "transformational relationships generat[ing] unexpected points of engagement" (Butcher et al., 2010, p. 35). Moving away from notions of charisma and influence, the transformational leaders driving successful school-university partnerships see the potential of the partnership understanding what they bring and what can be achieved through collaboration.

In this collection, our authors have reimagined ways of working that stretch beyond the transactional and toward transformation. And in many cases, these are contexts where there has been limited reform and reconceptualisation in teacher

education, instead it is societal needs that ignite the desire to create a partnership and work together to make an impact. We have learned of school-university partnerships that have a moral dimension, prompted by a concern for disadvantage. We have seen partnerships that have realised the need for innovation to address the needs of their community, and partnerships that thrive through collaboration to move beyond normative conceptualisations of how schools and universities interact within the teacher education space. What has also emerged is the role that policy plays across each partnership and how success is measured. We explore these observations and provide some insight into how we might promote, sustain and safeguard school-university partnerships for the future through an understanding of the role of policy, productivity, sustainability, and civic purpose.

The Role of Policy in School-University Partnerships

Policy is typically identified as a fundamental aspect of partnerships. For many, policy underpins a partnership and is seen to be the catalyst for the partnership's creation. By and large, policy has underpinned school-university partnerships driving stakeholders to work together to deliver initial teacher education and as such has focussed on fulfilling the *practise* obligation in the relationship through the provision of teaching placements. Our authors, though, have shown connections with policy that stem beyond this. Be it the foresight of government or the collective innovation emerging from stakeholders, we have seen partnerships that have worked together with impact exceeding the realm of placements typically experienced in initial teacher education. In Chap. 4, Del Valle et al., describe the transformational change resulting from the Philippines' national mandate to incorporate service learning across all tertiary education institutions. This follows shifts in the country's K-12 curriculum to learner-centred, community-based and lifelong learning. This policy mandate had, at its core, a desire to lift the social outcomes of rural and remote communities. Similarly, in Chap. 9, Mariano et al., describe a national education reform agenda which paved the way for the introduction of entrepreneurial education across Rio de Janeiro. Like the Philippines, the national policy in Brazil sought to respond to poor school completion rates, economic instability and widespread poverty. In these school-university partnerships, policy is conceptualised around complex problems with a moral dimension. Such partnerships move beyond the theory and practise of initial teacher education to transformation of individuals and the community.

As well as being a driver, dependence on policy can spark tensions. What we have learned is that when policy becomes the driver, the partnership can become reactionary, responding to a directive rather than emerging through an innate desire to collaborate, innovate and transform. Tension also arises from economic drivers which create suspicion regarding the legitimacy of collaboration beyond financial gain (Brown, 2015). In Chap. 10, Boath spoke of the centrality of Scottish government funding without which the partners would not have been able to innovate. Similarly, in Chap. 3, Napoli et al., discuss the importance of procuring funding to sustain

their partnership although they suggest that partnerships should not be limited or reluctant to innovate when policy does not match a need. In Chap. 2, Ell explores authentic partnership amid New Zealand's initial teacher education reform agenda. She explores the impact of policy in providing teacher preparation and repositioning initial teacher education as a joint endeavour. Whereas in Chap. 11, Mortari and Silva connect political responsibility to the transformation of individuals as citizens with civil responsibility grounded in virtue and respect.

Government policy and funding are very real considerations without which many initiatives would not be possible, however the reliance on policy can create a dependency on investment which can have consequences for the extent of autonomy and flexibility permissible within the partnership (Howitt, 2013). In Chap. 5, Dickson and Bolan describe creating a partnership model that was not subject to changes in funding support, so they strived to "policy proof" their model ensuring sustainability over an extended period. Questions arise around whether partnerships can exist without policy or without funding and building on this, around whether a partnership should be policy proof, to safeguard its existence without the dependency of a top-down directive and/or economic support.

The Role of Productivity in School-University Partnerships

This research alongside our own Australian study, (Bradbury & Acquaro, 2022), highlights the value of bringing together diverse stakeholder groups in school-university partnerships to leverage their collective expertise and improve student outcomes in both contexts (Bradbury & Acquaro, 2022; Maheady et al., 2016). Although these partnerships yield various mutual benefits for participants, the lack of empirical evidence regarding their impact remains a gap in the academic literature, necessitating further research (Rosenberg et al., 2009). An effective partnership is typically characterized by mutually beneficial outcomes. Interestingly, our edited collection reveals that mutual benefit, stakeholder responsiveness, and productivity alone did not always guarantee long-term success of the partnership. However, such reflections often served as a catalyst for gaining deeper insight into stakeholder needs or making recommendations to policymakers regarding future funding and support. Consequently, productivity can act as a valuable indicator of partnership effectiveness, prompting flexibility and adaptability in the collaborative processes rather than leading to the termination of the partnership. This is exemplified in Chap. 12, where Huber and Schneider discuss the enduring impacts of their school-university partnership in Erfurt, Germany, even after the formal conclusion of the network, as schools continued to collaborate and build upon the foundation established.

The Role of Sustainability in School-University Partnerships

Amid an ambitious agenda for sustainable development, the Sustainable Development Goals (SDGs) advocate for partnerships as a key strategy in achieving societal impact (United Nations, 2017). In their role in shaping the future, universities are regarded as key players in advancing the SDGs through cross-sectoral dialogue, collaboration and co-creation; strengthening transdisciplinary learning; and shaping public policy (El-Jardali et al., 2018). So, with this expectation, how can we best understand the role of sustainability for school-university partnerships within initial teacher education?

Sustainability has undeniably become *the* buzzword in school-university partnerships in teacher education. The only problem is that there is considerable variance regarding what it means and how it is measured. International research identifies trust and reciprocity (Green et al, 2020), clearly defined roles and responsibilities (Loughland & Ryan, 2020), and a shared vision and authentic partnership as fundamental in sustaining a partnership (Loughland & Nguyen, 2020). Meanwhile Kruger et al, (2009, p. 16) propose that sustainable partnerships are conceptualised by the following three characteristics:

(i) a focus on learning which is sustained by the participants contributing their personal and professional knowledge, understanding and expertise;
(ii) altered relationship practises which are sustained by communication about shared concerns; and
(iii) new enabling structures which are sustained by institutional resources (Kruger et al., 2009, p. 16).

Winslade et al. (2022), posit that the sustainability of school-university partnerships is closely linked to their success, the degree of value attributed to the relationship, and the acknowledgment and management of perceived imbalances between university and school operations and cultures. They emphasize the role of leadership, effective communication, phased implementation, shared vision, incentives, and the presence of an effective boundary crosser. On the other hand, Coburn et al. (2013), attribute sustainability to the longevity of partnerships. However, from our observation of the partnerships in this collection, we view sustainability as inherently tied to societal impact. Many of the partnerships emerged with the goal of achieving broader societal impact, often surpassing their original intentions. Within the collection, there were instances of partnerships that had come to an end but had left a lasting systemic change, such as Chap. 12, where Huber and Schneider's network continued thriving even after the conclusion of the funded partnership program. This transformative capacity, measurable through societal impact, was a recurring theme throughout the collection. Sustainability in these partnerships cannot be simply measured by their duration but rather by their ability to enact meaningful transformation. In Chap. 7, King et al., delve into the concept of school-university partnerships committed to change and empowerment. They argue for a system-wide approach to sustainable partnerships, advocating for a shift from isolated initiatives to a norm of partnerships across schools and higher education institutions. They emphasize the importance of collaborative efforts from both top-down and bottom-up perspectives, with both

partners investing in and taking ownership of the partnership. Similarly, in Chap. 5, Dickson and Boland, describe radical reform in specific areas of expertise. Trust, integrity and respect were identified as core values underpinning the partnership, contributing to its sustained success.

The Role of Civic Purpose in School-University Partnerships.

The school-university partnerships showcased in this collection go beyond pursuing individual gains and instead focus on addressing broader social needs. These partnerships aim to tackle issues such as educational access, socio-economic disadvantage, social inclusion, and equity. They are born out of a deep commitment to community needs, driven by a strong sense of civic purpose and a genuine desire to address pressing social problems. Rather than being driven solely by self-interest, these partnerships exemplify a collaborative approach that prioritizes the well-being and advancement of society as a whole. Caldwell and Harris (2008) refer to this as "vision with high moral purpose" (p. 5). Through a local needs assessment, our authors identify poverty, access to learning, decreasing student outcomes, shortages in schools as urgent needs, and create initiatives reflective of civic need. Notably, partnerships in Brazil, Italy, Vietnam and the Philippines exemplify a strong focus on civic purpose, as they are rooted in addressing community disadvantage. These school-university partnerships transcend transactional interactions and have a broader impact on the development of pre-service teachers, while simultaneously responding to the greater societal need. The shared commitment to the common good propels these partnerships towards meaningful and sustainable outcomes.

These partnerships are not solely driven by self-interest, but by a deeper commitment to meeting the needs of the community (Driscoll, 2009) and adopting a holistic approach to what constitutes good teachers. Butcher et al. (2011, p. 31) argue that higher education institutions should transition from transactional partnerships to transformative partnerships with a moral dimension. In such partnerships, parties unite with a shared purpose, aiming to address complex problems by leveraging their collective resources, fostering generative growth, and promoting positive change. The focus of these partnerships extends beyond individual benefit to creating a broader societal impact, while also nurturing personal development and fostering active citizenship. Sheehan (2006) characterizes this type of engagement as a community transcending mere service, as it allows for a reciprocal relationship in which the community's responses help redefine the nature of the problem itself and potentially lead to innovative solutions.

Where To From Here?

School-university partnerships have the potential to transform the educational landscape by creating a collaborative, comprehensive approach to learning, teaching, and research. They play a critical role in improving educational outcomes by promoting

the adoption of evidence-based practices and fostering a culture of innovation and collaboration in the education sector through authentic learning. Successful school-university partnerships are typically driven by a shared strategic vision, a deep commitment from each partner, and an understanding that by pooling resources, the partnership can achieve greater impact and effectiveness. This approach fosters collaboration and ensures that all parties involved are working towards a common objective and more likely to yield positive outcomes and create long-lasting benefits for all stakeholders.

The contributions to this collection disrupt the dominant model of school-university partnerships within teacher education and present a broader view of the power and potential of schools and teacher education providers working together. The need for school-university partnerships within teacher education is unequivocal (Darling-Hammond, 2012; OECD, 2014; Zeichner, 2010). However, there can never be a one size fits all approach, and nor should there. Despite the commonalities of teacher preparation, each context is unique, as is each partnership.

Going beyond mere transactional arrangements, this collection has explored the multifaceted role of research, policy, and practice across the entire life cycle of partnerships. By examining the factors that catalyse successful partnerships, including those that drive transformative change and generative growth resulting from authentic collaboration, this collection offers valuable insights into the art of cultivating successful partnerships and showcases global examples of the power of partnerships in an era that demands cross-sectoral collaboration to address contemporary societal challenges. A compelling vision for the role of partnerships is offered in promoting social justice, equity, and sustainable development, highlighting the importance of leveraging collective resources and expertise to create lasting impact. By illuminating the potential of partnerships in education, this collection provides valuable insights for creating effective partnerships that can drive positive change, and impact communities worldwide.

The impact of partnerships cannot be underestimated. The challenge lies in shifting from a transactional approach to transformation with a focus on authentic collaboration, reciprocity and the ability to impact at multiple levels. While the policy context matters, the dependency on government funding or mandated partnership agreements can limit the potential of school-university partnerships. The time is now to broaden the potential of school-university partnerships, to move away from isolated instances of innovation and toward the establishment of transformative partnerships that are fully embedded into the core work of schools and universities.

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Correction to: The Network of Erfurt Schools (NES): Professionalization of School Actors and School Development Through School, School Supervisory Authority, and University Cooperation in Germany

Stephan Gerhard Huber and Nadine Schneider

Correction to:
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In the original version of this Chapter title was incorrectly published as "The Network of Erfurt Schools (NES): Professionalization of School Actors and School Development Through School, School Supervisory Authority, and University Cooperation in Switzerland". At the end of the chapter title the country name "Switzerland" has been corrected as "Germany". The correction chapter has been updated with the changes.

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