Teaching and Teacher Education

South Asian Perspectives

Edited by
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Matthew A. Witenstein · Erik Jon Byker
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South Asian Education Policy, Research, and Practice

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Tackling topics in education relevant throughout South Asia, the books in this series demonstrate the linkages between research, policy and practice. Titles employ varied methodological approaches (qualitative, quantitative, mixed) to address specific topics in policy and practice, such as teacher education, technology, educational planning, and globalization of education. Books have a regional scope, focusing on interactions and developments across the region as opposed to single-country case studies. The series developed out of the work of the South Asia Special Interest Group of the Comparative and International Education Society, which brings together policymakers, practitioners, and researchers to discuss pertinent issues, and welcomes work from non-SIG members and SIG members alike.

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Preface

In 2010, Magdalene Lampert published a piece in the *Journal of Teacher Education* entitled, "Learning Teaching in, from, and for Practice: What do we Mean?" The piece was still fresh when I first met Professor Lampert three years later as a doctoral student at the University of Michigan. I was unaware of the debate about practice in the field and the myriad ways the profession was using the term. I was unknowingly, as another Professor eloquently put it, "entering into an on-going conversation."

Through her piece, Professor Lampert sought to provoke clarification and represent the nature of the work of teaching. The academic field and practitioners had been using the term practice to label different parts of teachers' efforts in assorted ways, as it had grown into more than just a way to talk about competency-based processes. The piece continues to play an important part in the framing of contemporary research on teaching and teacher education. In her class though, we talked about the prepositions.

Prepositions express relationships. They connect people, objects, and concepts across time and location. For Lampert, learning teaching "in" practice, referred to the world of practice and sites where people learn teaching. Learning teaching "from" practice reflected an anticipation that teachers learn teaching from a predefined set of best practices, or by watching others. And learning teaching "for" practice emphasized the things people do to instruct. Overall, one of the key takeaways was that learning teaching is connected in diverse and deep ways to practice.

Similarly, this book argues that the evolution of education in South Asia is deeply connected and profoundly contingent on the professionalization of teaching and teacher education.

Education is the process of creating opportunities to learn. The methods, the means, the practices, the strategies, and the techniques are all distinct parts of what it takes to create these opportunities. All of these are discreet, identifiable, studyable, and debatable. They are the parts that stitch together what teaching and learning is all about. Policymakers and the public work with incomplete images of teachers' work. Studying and intellectualizing these constituent parts are critical parts of practitioners' and researchers' duties. Their continued efforts can flesh out for others what it takes to do the work of teaching and teacher education. It can also not only deepen appreciation, but also involve more people in the conversation. This book is our entry into that ongoing conversation.

Washington, DC, USA   Rohit Setty

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An Introduction to Focusing on Practice

Rohit Setty

Teaching expertise, like anything else, takes a lot of hard work and practice to develop. But what teachers are working at and what they are developing is not always commonly understood. Teachers and teacher educators often do what they know and over time hone their abilities, routines, and decision-making to elevate student thinking and learning. Their knowledge and practice-base are likely informed through their own trial and error, interactions with peers, and to a lesser extent through professional learning opportunities; leaving much to chance. Ostensibly, the reliance on one's own experiences and the experiences of neighbors could be limited, and teacher and teacher-educator practice could benefit from informative academic research.

The research landscape for South Asia has been changing over the last few decades. As efforts to improve students' learning and the teaching that supports it are better understood and dealt with, the barriers to improvement decrease, in large part because the individualistic manner of knowing what it takes to do the work of teaching has been replaced with stronger common understandings and activities: ones that are

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based in and for practice. In our reading and preparation for this book though, we struggled to find even a few narratives that grappled with what it takes to pull off the work of teaching and teacher education in the region.

As we set out to build this book, our premise was to raise two questions within our communities: Can we afford to let educational practice be guided by hunches and hopes? And, what might their academic reports look like if the primary focus was on practices and the secondary focus accounted for aims and ambitions, environment and context, policies and programs? In essence, we asked authors to foreground practice and push to the background all the rest. We did this because our contention is that oftentimes aims are so ambiguous and context so dependent that they cloud. Implementation is regularly up to local discretion and available capabilities, and to move away from the problem of vagueness, we felt a radical departure toward practices might help authors and readers alike better understand teaching and subsequently learning in South Asia. We debated whether such a path would help us actually see the strong and salient instruments that are being created and deployed that teacher educators, teachers, and students are actually using to advance learning. We weren't sure. In short, though, we wanted to make use of and showcase whatever assets we could uncover.

What we found was that even in 2019 many practitioners are still not versed in basic teaching practices or even teaching moves. This seems to be the case, in spite of many having passed out of degree programs, or having attended teacher training programs. Fundamentals such as, ways to give instructions, ways to move in the classroom, ways to write on the board, wait-time, and ways to distribute materials are not part of what teachers know to do. The view that there are implications layered into these choices, or even that there are choices, remains unrecognized. And promising practices such as, leading group discussions, setting up and orchestrating small group work, providing oral and written feedback, reinforcing positive student behavior, diagnosing common patterns of student thinking, and posing questions in order to elicit student thinking, are even farther out on the horizon. As Herbert Simon, Victor A. Thompson, and Donald W. Smithburg (1950) wrote, "If the people do not know what they are supposed to do, they cannot do it" (Simon et al., p. 415).

Government school teaching in South Asia in the early 2000s was found to be lacking (Dyer et al., 2004; Mukunda, 2009; Ramachandran, Pal, Jain, Shekar, & Sharma, 2008) and as the cohort of authors for this

volume have corroborated, teaching in South Asia is still dominated by reading directly from the textbook, having students follow along and repeat, and having students copy directly from the textbook into their notebooks. The haggard dusty spaces, the overwhelming numbers, and the teacher's own experiences as a student continue to delimit their potential to alter and advance opportunities to learn.

The aims of teaching in South Asia, however, are changing. And this is presenting many challenges and opportunities for teachers. They are explicitly being told to engage their students, inspire them, and to teach through "constructivist" means in Pakistan, Sri Lanka, Bangladesh, and India (Ministry of Human Resource and Development Agenda for Teacher Education, 2012; National Curriculum Framework, 2005; National Curriculum Framework for Teacher Education, 2010). Teachers are being instructed to account for different learning styles, build confidence in students, and be reflective (i.e., during National Council of Educational Research & Training workshops 2010–2011). All of these duties are being put on to the teacher, in spite of the basics not even being understood in a way which might contribute to the teacher being comfortable with this new nuanced role, and as a result teachers struggle and continue to put children, and the nations they live in, at risk.

In order to help avoid aims and ambitions failure, we centered ourselves on practices and the ideas that inform them. The learning of teaching in and through practices is a way to expose teachers to explicated complex, ambitious teaching—minimize the risk—, and to open those practices up so that teachers are well equipped to selectively draw on them as needed (Britzman, 2012; Cohen, 2011; Lampert, 2001). When people learn practices, they enter a historically defined set of activities, developed over time by others. Dykstra (1991) defines practice as "participation in a cooperatively formed pattern of activity that emerges out of a complex tradition of interactions among many people sustained over a long period of time" (p. 43). Our own initiative, stems from U.S. academics Deborah Loewenberg Ball and David Cohen, whose 1999 work theorized a practice-based approach to professional development for teachers (Ball & Cohen, 1999).

Teaching teachers about practices, techniques, and moves is consequential so that teachers can move toward larger ideals. Their understanding of fundamental practices needs to be in place, so that they may move on to higher order practices that they can leverage for student

learning, growth, and advancement. In short, practice-based teaching and practice-based teacher education consist of the most recent innovations in education that purport to help students become people of quality, creativity, and character.

Recent academic research in industrialized nations has shown widespread attention on practice (Ball and Cohen, 1999; Borko, Jacobs, & Koellner, 2010; Zeichner, 2012) and lead to a few fundamental questions for South Asia: Why aren't some teachers and teacher educators drawn to practice-based teacher education? What is it that the field in South Asia knows about practice-based teaching and teacher education? And, in what ways and to what extent are teachers and teacher educators harnessing the potential that practice-based teaching affords in South Asia? We ask these questions because in spite of the great appeal of practice-based teaching and teacher education in other parts of the world, it seems the ideas haven't been very well unpacked across the subcontinent. Two main driving questions orient the chapters in this volume: (1) What is the work involved in teaching students in South Asia? and (2) What kinds of opportunities to learn might the teaching of practice present for teacher-learners?

Why Focus on Practice?

As it turns out classroom teaching can be quite a complicated endeavor. Negotiating the interface between students, the teacher, and content is not a simple matter (Cohen, Raudenbush, & Ball, 2003). As researchers have shown, to teach in intellectually "ambitious" ways (Franke, Kazemi, & Battey, 2007; Lampert, Beasley, Ghousseini, Kazemi, & Franke, 2010; Windschitl, Thompson, Braaten, & Stroupe, 2012) requires proficiency in subject-matter knowledge (Ball & Wilson, 1996; Schwab, 1964, 1971), pedagogical knowledge (Shulman, 1986) pedagogical content knowledge (Shulman, 1987), and adaptive expertise (Bransford, Derry, Berliner, & Hammerness, 2005; Hatano & Inagaki, 1986).

To put these constructs into context, a sketch of the demands on Standard IX Social Studies teachers may help.[1] In Standard IX Indian

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[1] This illustration stems from my interpretations of decades of research and scholarly leadership dedicated to articulating the complex nature of the work of teaching (e.g., Cohen, Raudenbush, & Ball, 2003; Fenstermacher, 1994; Lampert, 2001; Shulman, 1987; as well as those cited above). An important ingredient in this view is that teachers are "adaptive experts" (Bransford et al. 2005). Bransford et al. contrast this view with "routine

classrooms, teachers might need to teach about the spread of Buddhism in the ancient world. To do so, the teachers would need to have some basic subject-matter knowledge. They would need to know functional details—characters involved and places of note. And they would need to know more crucial ideas about interaction and historic modes of communication. They would need to know about the rigidity of ancient forerunners of Buddhism in order to contrast them with contemporary versions. They would need to know the debates between and the threats to the ancient spiritual practices. They would need to know how research has shifted extant perspectives on these topics as well. To be effective, the teachers would benefit from some pedagogical knowledge, too. They would need to know the subtle characteristics of each student, and have a broader sense of the common patterns of thinking of IX standard students, in order to leverage opportunities for them to not only know information, but also read carefully, identify themes, and write and talk persuasively about them. To generate student thinking the teacher would need to have some proficiency in pedagogical content knowledge. They would have to be able to draw from their subject-matter knowledge and their pedagogical knowledge and reformulate the content in terms, modes, and representations that fit well for their Standard IX students; being attentive all the time to their languages and cultures. They would need to be selective and thoughtful about the resources they deployed, in order to challenge assumptions and provide opportunities for students to question historical sources.

Then, they would have to marshal and mobilize all of this acquired knowledge and expertise skilfully as they enact a lesson. This would entail the teachers having practiced and honed routines that could facilitate and ease learning opportunities. They would need to organize time, space, materials, and students strategically and deliberately, and design sequences of lessons that provided opportunities for inquiry and discovery. The teachers would need to foster student engagement, provide opportunities for students to practice core disciplinary skills, such as reading, writing, discussing, interpreting, and evaluating. They would

experts," who have a core set of competencies that they develop and hone over a professional life building ever more precision and efficiency. "Adaptive experts," on the other hand, continually restructure core ideas and beliefs, and expand and extend their competencies to fit with these new positions. Adaptive expertise requires an ability to innovate, have flexible skills and knowledge, and develop awareness.

need to have adaptive strategies as well that would allow them to capably respond to what students do or say, ask questions when necessary, and listen when needed. They would have to iteratively assess what students have come to know and are able to do as a result of the instruction before, during, and after the lesson. They would have to lead a whole-class discussion, prompting some to talk and urging others to listen. And they would have to manage small groups, as well as individual work; collective thinking as well as individual.

Then, they would need to be reflective and analytical about their efforts as well as the students'. They would need to find media and mechanisms that would support them in analyzing the complex interactions that just occurred, and doggedly critique their effort looking for ways to improve and enhance the learning opportunities. They may need to find ways to communicate about their teaching with trusted peers, teacher leaders, or outside resource persons. And, they need to do all of this work in relation to external benchmarks and guidelines, and ensure that it meshes with personal goals, but also with larger societal ones.

It may seem that only demigods or magicians might be able to pull this off. But teaching and teacher education, with a focus on practice, can bolster practitioners efforts to enhance student thinking and learning in such ambitious ways. A focus on practice is not an effort to harken back to competency-based teaching and teacher education. Rather, it is an effort to move the field forward (Setty, 2013). A counter view to Competency Based Teacher Education has been posited by contemporary reformers of teacher education in the United States, where "practice" has come to represent a way of thinking about the work of teaching. Researchers have termed such work as "core practices" (Grossman & McDonald, 2008), "generative practices" (Franke & Chan, 2008; Franke & Kazemi, 2001), and "high-leverage practices" (Ball, Sleep, Boerst, & Bass, 2009; Hatch & Grossman, 2009), and in doing so are building on each other's efforts to determine the focus of teachers' education. For Tom Hatch and Pam Grossman, high-leverage practices are those instructional approaches that will help teachers face problems that commonly come up while teaching, and also are vehicles for their own learning. For example, orchestrating group discussions will lead to opportunities for students to articulate their thinking, which in turn will offer the teacher opportunities to think about issues that come up in terms of content, pedagogy, and student thinking. Members of the University of Michigan's School of Education have formulated

another definition of "high-leverage practices." In their work, the community of scholar-practitioners identified 19 practices, such as "Making content explicit through explanation, modeling, representations, and examples" and "Implementing organizational routines, procedures, and strategies to support a learning environment." These practices constitute the curricular core of teacher preparation efforts in some related programs.

Deborah Loewenberg Ball and Francesca Forzani (2009) explain that "High-leverage Practices" include tasks and activities that are essential for beginning teachers to understand, take responsibility for, and be prepared to carry out in order to skillfully enact their core instructional responsibilities" (Ball & Forzani, 504). The definition highlights an important shift in the move away from competencies to practices. "Practices" includes technique and more. As teaching is purposeful, principled, and constituted by relational work, the learner is of central importance in this definition, as are the instructional responsibilities. In this view of instruction, technique sits within broader social, educational, and individual aims (Lampert, 2001). And, it can be used as a resource to study and coordinate the technique with broader intellectual aims and social responsibilities that constitute such practices.

An orientation to practice is not new in education or in philosophy. John Dewey's thoughts on practice have supported this orientation in teacher education and provide another counterargument against convictions that privilege technique over principled practice. In his seminal essay, Dewey argues that theory and practice in teachers' education are interrelated (Dewey, 1904). For Dewey, the psychology, the logic, and the ethics of developing children requires grounding in theoretical ideas of teaching and learning. Without this base the teacher runs the risk of under-developing an ability to grow in their professional position over time (Dewey, p. 151). There are "evils" that Dewey points to that will develop out of an emaciated theoretical grounding; e.g., lack of intellectual independence, inability to maintain steady growth, and intellectual subservience—an inability to cultivate independent thinking (Dewey, p. 151). Additionally, Dewey notes that the aim of theory is to support the practical work of learning to teach. "Practice work," as he calls it, is not merely the site of enacting or witnessing techniques of teaching, however. Rather, the role of practice is to incite intellectual reactions about theory in the professional learner (Dewey, p. 143). Dewey's concern with the relationship between theory and practice

in teachers' education moved him to articulate the particulars of what practice work could entail if leveraged. In practice environments students of teaching would: (1) observe psychological and theoretical insights; (2) observe an intimate introduction to the lives of students, by being useful in helping the instructor; (3) encounter opportunities to observe the technical points of classroom teaching and management; (4) participate in the actual doing of teaching, with maximum liberty; and (5) learn teaching through an apprenticeship (Dewey, pp. 166–169). These elements were tangible ways that Dewey saw that the relationship between theory and practice could be bridged in a laboratory-type of learning environment.

Practice includes larger educational aims for learners and for society, and they include commitments to subject-matter knowledge and the skills that come along with it (Cohen, 2011). When practice is given a priority in teacher education it centers learning about instruction on what teachers do with students in classrooms, and with content. Attention on practice has implications for the content, method, and structure in teacher education practice.

To orient this discussion on teaching and teacher education practices from the vantage point of modern academic research institutions is an acceptable starting point, but the theory–practice debate has long threads that reach back to ancient South Asia as well. A useful discussion of which can be found when drawing upon Sheldon Pollock's article, *The Theory of Practice and the Practice of Theory in Indian Intellectual History* (Pollock, 1985). In his work, Pollock argues that in Sanskritic culture śāstra ("theory") and prayoga ("practical activity") were inextricably bound in śāstras (pronounced sha-s-thras), such as the Rig Veda, Manusmriti, and the Kāmaśāstra. The association was not causal in these texts—where knowledge of theory preceded practical endeavors—rather the two mutually affected, constrained, and informed one another.

Pollock argues that the śāstras have a mythical aura about them, which has implications on the prioritization of theory. The very notion of a śāstra implies that it was conceived primordially and composed in ethereal ways as opposed to through the hands of humans. This implies that knowledge is fixed. If knowledge is fixed, then the practices that depend on it are also set. If practices need not evolve, change, or grow, then experimentation, invention, and discovery are unnecessary. Pollock—citing architecture and mathematics—notes that he is not arguing that innovation does not exist in India, or that it has not occurred. Rather,

he is pointing out that such innovations are viewed through an inverted ideological lens, which claims that these achievements are results of "renovations and recoveries." Where Pollock's argument proves helpful is that while these texts are cosmological and highly theoretical in nature, they are nevertheless blueprints for how the cosmic should proceed; i.e., guides for everyday practice (Pollock, p. 518).

In Sanskritic India, śāstras were programmatic. According to Pollock, communities were brimming with extraordinary taxonomies and nomological handbooks that made homogeneity conducive for over two thousand years. As the oral became textual, such articulations were seen as devices rather than storehouses of knowledge. For example, the 196 yoga śāstras of Patañjali detail the aims, intentions, and consequences of yogic beliefs, while also detailing the āsanas (body positions) that aid in harnessing the physical, mental, and spiritual through concentration. And the Ayurveda, derived from the Rig Veda, merges the codified natural laws with natural medicinal treatments. Furthermore, the Kāmaśāstra —the procedural handbook about human sexual conduct—also provides treatments of theory in procedural terms. As a result, Pollock argues such śāstras need not be interpreted as theoretical treatises, but rather prescriptive systems (Pollock, p. 504).

Even though they had emerged from a primordial status explicating how to achieve "the meaning of life," the śāstras developed into specialized texts that present the practical means to reach there.[2] Pollock draws on Rāmānuja[3] to argue for the basis of this view: "Śāstra is so called because it instructs; instruction leads to action, and śāstra has this capacity to lead to action by reason of its producing knowledge"

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[2] This did not occur with ease, of course. As an example, Pollock cites a classic account of how the Kāmaśāstra in its most accessible form came to be.

> We are told that Prājapati enunciated the "means of achieving the three ends of life" (trivargasādhana) in one hundred-thousand chapters at the beginning of time, when he created them. Svayambhuva Manu separated out the one section dealing with dharma, Brhaspati the one dealing with artha, while Nandi, the servant of Siva, formulated a kāmasūtra in one thousand chapters. Svetaketu, son of Uddalaka, abridged this into five hundred chapters, Babhravya of Pancala into two hundred and fifty chapters with seven topics. Different people thereupon separately reworked the seven topics. …Vatsyayana took up the task of summarizing the whole subject in a single small volume. (Pollock, 1985, p. 513)

[3] Rāmānuja was an eleventh-Century scholar. His most famous work is the Brahma Sutra Bhashya— a commentary on the Brahma Sutras.

(Rāmānuja in Pollock, p. 509).[4] Thus, following Pollock, even the most substantial primordial texts in ancient India are manuals. Today, the priority of knowledge from the śāstras frame many decisions in India. Some view them as faultless and well defined. But as the śāstras themselves are of great importance, Pollock's analysis that theory and practice have been fused for some time warrants recognition for this present volume.

My comments here on Pollock's treatment of the theory–practice dialectic in ancient India hardly do justice to the complexity of his argument and the issues he raises. What I find compelling is that it echoes modern assumptions that practice can be codified, and to adequately understand such codification it is best not to divorce it from theory. Critics of this work might argue that employing a practice-based theory is a neocolonial endeavor, in which we are importing an American conceptualization that holds no applicability in South Asia. They may claim, also, that an overly systematized way of teaching and teacher education impedes the progress that can be gained from more organic growth, and that teaching and teacher education is best informed through local truths and first-hand experiences. However, if Pollock's argument is acceptable, then such a view imports provisions for the counterargument that progress in South Asian teaching and teacher education depends on intentional design, codified patterns of performance, and a grammar of practices.

What Is This Book About?

This edited volume is about how Teaching and Teacher Education is currently being understood and practiced among diverse communities of education practitioners and policy enactors in South Asia. It borrows conceptual ideas from industrialized nations, and it brings together an

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[4]For example in the Manusmriti, directives are given on greeting others. While this is practical in feel, it also articulates the theoretical construction of hierarchy.

> After the salutation, a brahman who greets an elder must pronounce his own name, saying "I am so and so." …. A brahman should be saluted in return as follows: "May you live long, sir"; the vowel /a/ must be added at the end of the name of the addressee, the preceding syllable being lengthened to three morae…. A brahman who does not know the proper form of returning a greeting should not be saluted by learned men… To his maternal and paternal uncles, fathers-in-law, officiating priests, and other venerable people, he must say, "I am so and so," and rise before them, even if they are younger than he. (Manusmriti 2,122 in Pollock, 1985, p. 500)

assortment of authors from the fields of education and development, representing a wide range of positions from strong believers in practice-based approaches in research, extension, and development, as well as those who approach practice-based teaching and teacher education with strong skepticism. The most distinguishing feature of this book is its combined focus on what it takes to effectively execute both teaching and teacher education as it endures in South Asia. It is our intention that this volume will help to raise questions about current teacher and teacher education paradigms, but also that it will call out future trends in the professionalization of teaching and teacher education.

This volume is also about deeply exploring specific ways of teaching and teaching teachers how to teach in South Asian educational contexts. In particular, it is about generating a systematic look on using high-leverage practices and using those same sets of practices as a medium to teach teachers. Our intended focus is on how both teaching and teacher education is enacted, what teachers and teacher educators do, and how the learners inform these efforts. With such a focus, this volume does little with social, historical, or cultural background or implications, as one might expect from edited volumes on education in South Asia. We argue that this framework engenders the volume to be more accessible and usable for the communities we intend this book to flourish in. Moreover, we believe that our approach to seeking out authors from the classroom, teacher education institutions, government agencies, nongovernmental organizations, and academic institutions for this book distinguishes it from its predecessors. As South Asia is rich with nongovernmental and quasi-governmental agencies, we have incorporated chapters cowritten by academics and practitioners to allow for interaction (and participation) between theory and practice.

At the same time this volume has an interdisciplinary feel, positioning not only the work of both teaching and teacher education, but also casting it within different educational genres, such as cognitive and social science, subject-matter disciplines, and qualitative and quantitative research. Moreover, this volume showcases works from large-scale efforts across Pakistan and India, as well as interventions and academic analyses at the local levels in these countries, as well as from Bangladesh, Sri Lanka, and the Maldives. The book also asked these educators to bring to light the practice-based theory and techniques they use while teaching in various settings—classrooms, communities, organizations, online, and others. As editors we asked authors to use their settings to inform

the ideas presented here, as they are more than mere bystanders in the ways teaching and teacher education unfold. We keyed in on multiple disciplinary perspectives as well, as we recognized that this volume's success would rely on a dialogue between both analytic quantitative research articles as well as carefully thought out qualitative ones.

Formula for the Book

Tackling topics in education relevant throughout South Asia, the books in this series demonstrate the linkages between research, policy, and practice. Authors employ varied methodological approaches (qualitative, quantitative, and mixed) to address specific topics in policy and practice, such as teacher education, technology, educational planning, and globalization of education. This book has a regional scope, focusing on interactions and developments across the region as opposed to single-country case studies. The series developed out of the work of the South Asia Special Interest Group (SIG) of the Comparative and International Education Society (CIES), which brings together policymakers, practitioners, and researchers to discuss pertinent issues, and welcomes work from non-SIG members and SIG members alike.

As an editorial team we worked together and with our publisher to create the concept of a book that focuses on practice in South Asia. We honed our thinking and responded to feedback from Palgrave before we sent our call for contributions out. We then made a focused attempt to solicit contributions from practitioners and academics from the region, and also from universities and NGOs from industrialized nations. After several rounds of feedback, revisions, discussions, and debates, we finalized all drafts and went to print. In what follows, we provide a snapshot of our thinking on the bones of the project, and the topics that our authors' chapters speak to.

How Does the Book Break Down?

In the first part—**The Enduring and the New Questions in Teaching and Teacher Education in South Asia**—we introduce the broad trends and debates prevalent within teaching and teacher education research and practice. Furthermore, this part introduces the concepts and issues pertaining to practice-based teaching and teacher education in the region.

A functional purpose of this introductory part is to describe to readers the objectives and purposes of the volume and to present the critical approach of this project, which aims to bring together multiple voices and perspectives on teaching and teacher education and its relevance to the education sector in South Asia. This part is comprised of three chapters. First, Samanthi Senaratne and Nuwan Gunarathne work to explicate what teacher educators might learn from professors of accounting and finance in Sri Lanka; specifically that goal-oriented practices are the driving force behind improvements in accounting education at the University of Sri Jayewardenepura. Second, Jyoti Bawane's chapter sets the stage by explaining what has been done in India before for teachers' education. And third, Professor Subitha Menon rekindles the conversation on "policy rhetoric versus policy achievement" and offers suggestions for certain reforms, which if taken up, might derive strength from practice-based teacher education.

Together these chapters orient us to some of the enduring questions of teaching and teacher education as they exist in South Asia; i.e., How is practice being considered today? What is the role of practice? Where is practice-based teaching and teacher education heading?, as well as new questions, such as: What are the ways in which educators can be looking to and learning from other professional education efforts, such as medicine, law, and accounting?

The second and third parts—**Empirical Research on Teaching in South Asia** and **Empirical Research on Teacher Education in South Asia**—constitute the bulk of the real estate in the volume and showcase chapters that provide recent research on teaching and teacher education in South Asia. The parts roll together multiple methodological studies, trend-level analyses, and case studies. All of which grapple with the work of doing teaching or teacher education and question its evolution.

Maya Kalyanpur's research report of six case studies of teachers' practices in Indian English Medium Low-Fee Private Schools showcases how choral recitation, copying from the board into notes, and the deliberate neglect of struggling students remain as core practices of teaching in the ubiquitous schools that mushroomed as a result of government abdication of education as a public good. The second research report in this section dives into the Pakistan Reading Project and discusses how social and cultural norms and practices in Pakistan predispose boys to engage less in reading. Shaheen Ashraf Shah and Grace Armstrong's research draws from the USAID's National Gender Study and expands

upon the notion of practices to include not only the pedagogical practices deployed by teachers, but also the learners' practices and those of the families that support them. Moroever, the research delves into the darkness of how the practice of violence affects students' learning opportunities and outcomes. Turning back to India, the third chapter in this part by Vincy Davis from the Accountability Initiative maps—through a mixed-methods analysis—how teachers use their time in 39 different Delhi schools, and contrasts administrative/clerical practices with pedagogical practices. Davis's use of survey and interview data paints a painful picture of degrading morale and self-esteem for teachers as the clerical demands for their time often win out over pedagogical ones. The next chapter for the Empirical Research on Teaching part comes from the Maldives and Professor Rhonda D. Biase. Her work investigates how teachers can enact active learning pedagogy in the Maldivian education system through a design-based research methodology. In her report, she explores the pedagogical practice of concept mapping through photo and graphic elicitation of student thinking techniques as the Maldives transition from teacher-centered learning to student-centered learning.

The final chapter in this part serves as a bridge between the exploratory section on teaching practice and the follow-up section on teacher education. Professors Amy Moyer and Jill Sperandio examine the problem of "transfer of training" to practice within the context of government primary schools in Bangladesh, by considering three qualitative case studies of novice teachers and their practice. Their research report voices how novice teachers implemented methods that they were taught as part of their teacher education program, but that these methods were unambitious and conventional, such as question and answer types of techniques. Thus, the transfer of training for Moyer and Sperandio was successful, but this success wasn't leading to an emancipated form of teaching or learning.

Refocusing on teacher education, the first chapter of part three is a collaboration from educators at the Piramal School of Leadership in Gujarat, India and academics at NYU. In this piece Mahjabeen Raza, Sharon Kim, Monal Jayaram, Vivek Sharma, Aditya Natraj, and Edward Seidman explore how the Teacher Instructional Practices and Processes System (TIPPS) developed at NYU unfolds and evolves in Gujarat under the efforts of Gandhi Fellows, District Administrators, School Leaders, and Teachers, and how the linchpins of feedback and video-based analyses feature in these efforts. The final chapter in part three assesses a continuous

professional development program implemented at scale in India. In the analyses set forth by Bindu Thirumalai, Anusha Ramanathani, and Amina Charaniai from TISS, and Glenda Stump from MIT, the core construct of communities of practice (Wenger, 1998) unfolds during a mass-teacher education activity with over 2000 teachers, and how reflection can be bolstered through the use of ICT tools is explored.

In the final part—**Humanizing, Professionalizing, and Intellectualizing the Policy Goals for Teaching and Teacher Education**—we focus on ways in which the promoted ideals of policymakers have shaped and are being shaped by teachers and teacher educators. Chapters present analyses of macro-policies and frameworks, cultural myths of teachers and teacher education, and alignment with teaching and teacher education and sociopolitical goals and tactics. More than a restatement of policy frameworks and what they entail, these chapters concern themselves with the localization of policies and reinterpretation of ideas into practices. In particular, chapters explore how teaching and teacher education policies are being reframed and applied, whether it is through local interpretations of national narratives, or deep dives into district or state-wide plans, or even school-level actions.

The first chapter in this part by Professor Suzanna Brinkmann argues that teachers' beliefs should become an important focus of Indian Teacher Education, and elevates her argument by considering what kinds of teacher education processes are more likely to contribute to changes in teacher beliefs. The chapter also explores a framework for Indian teacher educators seeking to engage with teachers' beliefs, anchored by two practice-oriented theories: Transformative Learning (Mezirow, 1990) and Freirean problem-posing (Freire, 1970). The penultimate chapter for this part by Professor Supriya Baily and Swati Sodhi examines a much-debated policy framework in India in the Right to Education Act. Their research, however, explores the policy affordances and limitations through the lens of extra-curricular activities, and how RTE has exacerbated some of the more dehumanizing and unprofessional aspects of the current state of teaching and learning in India. The final chapter in this part examines the rapid expansion of public–private partnerships and philanthropy in pushing forward a green agenda through teaching and learning across India. In the chapter, Professors Preeti R. Kanaujia and Rajeswari N. Gorana provide an important historical, legislative, and contemporary context for the potential enhancement of Environmental Education and the sustainable development on India's horizon.

The contributed chapters conclude with an original capstone piece on Pastoral Care from Ashwathi Muraleedharan, a standard V classroom teacher in India, who capably articulates one teacher's view on her role and what teaching entails. The final chapter by Erik Jon Byker and Matthew A. Witenstein concludes the volume and synthesizes the editorial team's takeaways.

Our Hope for How to Read the Book and Render It into Practice

This book will be especially useful in wide-ranging situations. We view it as a robust compilation of current research and practices for practitioners, researchers, and academics in the field of education, offering an excellent overview of the theories of practice-based teaching and teacher education, as well as the key issues regarding the deployment of practice-based teaching and teacher education as they unfold in education settings across South Asia. We also have taken care to provide a special emphasis on regional adaptations of industrialized nations' stances on teaching and teacher education.

As educators across South Asia continue to struggle, the volume offers a provocative introduction to practice-based teaching and teacher education and highlights innovations in the combined practices of practice-based teaching and teacher education. And while readers may find that the majority of the chapters adopt the premise that practice-based teaching and teacher education can provide enhanced opportunities for teaching and learning, not all of them do. In some cases, the critiques may prove to be more helpful than the affirmations.

Our target audiences include students of teaching—both novice and practicing, academics pursuing explorations of teaching and teacher education settings, and policy practitioners seeking insight into how their own efforts are unfolding in real spaces. With respect to students of teaching, particularly those at the graduate level, we see this volume as a reference resource for you. We hope the book will be attractive to students studying the work of curriculum and teaching, the intersections between policy and practice, international development, comparative education, mixed-methods research, and enhanced teaching modalities. We believe it will prove an attractive text for course adoption in Graduate Faculties of Education, Social Work, Development Studies, Rural Development, Development Sociology, and Gender Studies, where

courses on such themes as "community based development," "activity based learning," and "participatory learning" continue to increase in demand.

If you are a sociologist, anthropologist, or political scientist, the volume will provide an accessible introduction and collection of articles, acting as a key reference text on the use of education policy appropriation and development in South Asia. All volume authors were encouraged to draw on the wider literatures on teaching and teacher education, its evolution and incorporation in global and local policymaking for their chapters. Finally, this volume will act as a reference for domestic and international policy practitioners in education and other social services, whose work increasingly requires them to have a respectable understanding of how teaching and teacher education gets done, unfolds, the activities of those involved, and their impacts on children's learning processes and outcomes.

As an editorial team we endeavored to support program and policy evaluations, and journalistic accounts, by guiding them toward more critical and analytical stances. We were more successful in some cases than others. Nevertheless, all of the chapters illuminate the on-the-ground practices and pedagogies that are unfolding in South Asian classrooms today and have the ability to serve as linchpins for others to learn from and deploy in their own practice in South Asia and abroad.

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The Enduring and the New Questions in Teaching and Teacher Education

CHAPTER 2

Outcome-Based Education (OBE) in Accounting in Sri Lanka: Insights for Teacher Education

Samanthi Senaratne and A. D. Nuwan Gunarathne

Introduction

The dramatic changes in the business environment in the twenty-first century require that professionals be skilled in adapting to ambiguities, thinking critically, and making decisions on their own (Longmore, Grant, & Golnaraghi, 2018). With the changing demands for skills, the nature of teaching, learning, and assessment in every discipline is also evolving. This is clearly visible in management education which requires exposure of students to real world business management experiences. The changes in management education have aroused keen interest in the outcomes of management education program in universities and professional institutions. This is particularly important at a time

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when management education is facing growing criticism globally for not being able to produce graduates who meet the expectations of the business world (Thomas & Cornuel, 2012). The shortage of skilled workers to meet the needs of the business world can be a major impediment in South Asian developing countries such as Sri Lanka to achieving economic and social development (Aturupane, Savchenko, Shojo, & Larsen, 2014; Dundar, Millot, Savchenko, Piyasiri, & Aturupane, 2014). For instance, as the Sri Lankan economy is moving from agriculture to higher-value-added industries and services, there is not only a shortage of skills but a growing skills mismatch (Dundar et al., 2014). Similarly, there is a shortage of skilled teachers in many developing counties.

Over the next two to three decades, the South Asian region will witness an average of 16 million new entrants each year to the labor market. These new entrants and the existing labor force, the majority of whom are unskilled, unorganized or underemployed laborers working in agriculture, textiles, or construction need to be equipped with the right skills to meet the demand from high growth industry sectors such as business process outsourcing, high-end manufacturing, health, hospitality, and infrastructure (Economist, 2015). Although this is the prevailing labor market situation in Sri Lanka, there are some niche disciplines that outperform the rest of the education system. Accounting education in universities in Sri Lanka is one such exception. Due to the expanding accounting education system at higher education levels, Sri Lanka has gradually become a global hub that produces accountants for the rest of the world (Senaratne & Gunarathne, 2017; World Bank, 2015). There is a large number of professionally qualified accountants who work overseas in regions such as South East Asia, Africa, Middle East and Australasia (Senaratne & Gunarathne, 2017). Although graduate unemployment is a problem in Sri Lanka, the accounting graduates of universities like the University of Sri Jayewardenepura have secured a hundred percent employment within three months of completing their degree program (Faculty of Management Studies and Commerce [FMSC], 2017). Owing to the ample supply of professionally qualified accountants capable of working in a global setting, Sri Lanka has been recognized as a hidden source of business process and knowledge services outsourcing while being ranked as one of the top 19 global centers of excellence for finance and accounting outsourcing (Gunarathne & Senaratne, 2018; Kearney, 2012; SLASSCOM, 2015). Although accounting education in Sri Lanka is dominated by professional accounting bodies, some academic accounting degree program memes are outperforming others
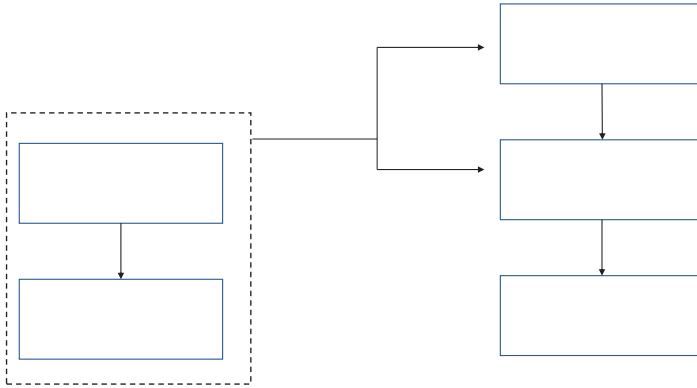
Fig. 2.1 Chapter objective

by adopting novel education models such as outcome-based education (OBE) (Gunarathne, Senaratne, & Senanayake, 2019). These models not only provide insights into management education in general but also directions for teacher-education practices in Sri Lanka, particularly at the school level where there are many issues pertaining to the quality of education. This chapter examines how the successful university-level accounting education could guide teacher education at school level in Sri Lanka. Accordingly, it discusses the lessons for teacher education based on a case study of the adoption of OBE in an accounting degree program in Sri Lanka. More specifically, as presented in Fig. 2.1, this chapter discusses how (a) *teacher-educators* (Tier 1 teachers) and (b) *student teachers* (Tier 2 teachers) can learn from and apply the OBE model described in this chapter at school-level education. Further, these lessons can offer insights for education policy makers.

The OBE model discussed has been adopted by one of the public universities in Sri Lanka in its bachelor's accounting degree program (see section "OBE at the University of Sri Jayewardenepura" for more details). This university is one of the fifteen universities in Sri Lanka that offer free education in the country. In addition to higher education, Sri Lanka's public-school education provided in over 9000 government schools from primary to upper secondary is free for all citizens. These investments in education have enabled Sri Lanka to reach one of the highest literacy rates in South Asia together with almost universal elementary school attendance (D'Souza & Moore, 2017; Dundar et al.,

2017). Further, Sri Lanka has been recognized for her achievement of high human development in South Asia alongside the Maldives (D'Souza & Moore, 2017).

The rest of the chapter is organized as follows: section "School-Level Teacher Education in Sri Lanka" provides an overview of the school-level teacher-education system in Sri Lanka. section "Outcome-Based Education (OBE) in Management and Accounting Education" describes OBE in management and accounting education followed by a section on OBE in accounting education in Sri Lanka. The next section discusses the OBE approach of the selected case study accounting degree program. The final two sections present the lessons for teacher-educators, challenges, and the way forward.

School-Level Teacher Education in Sri Lanka

Despite Sri Lanka's noteworthy achievements in primary and secondary school education, there are still many problems and challenges in its education system. Among them are the poor quality of education and training that do not meet international standards identified as a major issue (Dundar et al., 2017). The educational problems in Sri Lanka are multifaceted and complex and compounded by lapses in teacher education and other teacher-quality-related issues. For instance, the quality of teachers is contested for many reasons. The lack of teacher-quality is related to the relaxation of the minimum qualification for recruitment under political influence, imbalanced deployment of teachers with a surplus of subject teachers in urban areas, and shortages in rural areas, a weak teacher training system, and an acute deficiency of teachers in mathematics, science, and English (Dundar et al., 2017, Sethunga, Wijesundera, Kalamany, & Karunanayake, 2016). This section provides an overview of the school-level teacher education in Sri Lanka together with its challenges.

Teacher education in Sri Lanka dates back to the colonial era which saw the first government teacher training college set up in 1903 (UNESCO, 1990). Over the years, teacher education in Sri Lanka has undergone various changes coupled with many noteworthy developments and complexities. The present complex teacher-education system in Sri Lanka reflects the intricacies resulting from unsystematic teacher recruitment, deployment, and promotion procedures (Sethunga et al., 2016). Unlike many other countries, entry into the teaching profession

in Sri Lanka does not require degree qualifications and there are various entry points. For instance, primary (or elementary) and lower secondary school teachers can enter the profession with a Trained Teacher's Certificate without a degree while upper secondary teachers have to complete a one-year graduate program following a bachelor's degree in another discipline (D'Souza & Moore, 2017). The present teacher education system that had evolved over time in Sri Lanka caters to these various possible entry points and levels. However, similar to that of any other country, at present, teacher education in Sri Lanka is at two levels: (a) *pre-service* and (b) *in-service* (Sethunga et al., 2016).

Currently, school teachers in Sri Lanka are provided pre-service training in two main ways: (a) at 19 National Colleges of Teacher Education under the National Institute of Education that provide institutionalized teacher training for nongraduate teachers and (b) in Bachelor of Education programs at some of the public universities (D'Souza & Moore, 2017; Sethunga et al., 2016). On the other hand, short-term and long-term in-service training is provided by various institutions such as universities that offer postgraduate qualifications, Teacher Training Colleges, Teacher Centres, the National Institute of Education, and the Provincial Ministry of Education (Sethunga et al., 2016). In addition to pre and in-service training, there are various initiatives, programs, and mechanisms for the continuous education of teachers such as seminars, workshops, conferences, study circles, guidelines on new innovations, and the supply of information (Sethunga et al., 2016; UNESCO, 1990).

Since there are large numbers of untrained teachers in the school system, the government with other international funding agencies have taken various measures to train these teachers (UNESCO, 1990; World Bank, 2006). The government of Sri Lanka initiated major educational reforms in 2006 to train nearly 50,000 mostly untrained teachers recruited during 1989–1995 in line with the framework for national educational reforms identified by the National Education Commission (NEC) and the World Bank's Country Assistance Strategy of 1996 (World Bank, 2006). However, teacher education in Sri Lanka continues to face a number of problems and limitations. Insufficient pre-service training, lack of teacher training facilities, funding limitations due to government budget constraints, lack of teacher-educators and resource centers, dearth of literature in Sinhala/Tamil, and insufficient focus on training primary school teachers are some of the major issues associated with teacher education in Sri Lanka (Sethunga et al., 2016; UNESCO, 1990).

Consequently (together with many other issues), the quality and relevance of the present school education system in Sri Lanka is facing growing criticism. This is quite evident in school-level management education[1] which provides a basis for the students to pursue either vocational, professional, or university-level higher education in management disciplines. Thus, the quality of the students who start to follow these programs has been questioned as it can have a detrimental impact on the learning process of management education students. Therefore, improving the quality and relevance of school-level management education system, by adopting the successful approaches followed in higher level management education is of paramount importance for the teacher-educators and policymakers.

With a view to understanding how teacher-educators and policymakers can improve school-based education systems, the next section provides an overview of the OBE model in management and accounting education.

OUTCOME-BASED EDUCATION (OBE) IN MANAGEMENT AND ACCOUNTING EDUCATION

The changes in the business world fueled by globalization, business complexities, demographic changes, and new technological developments have created a need for changes in the education practices of management education so as to cater to the needs of the business community (AACSB, 2018; Zhao & Ferran, 2016). OBE in management education reflects a change embraced by business schools around the world to adapt their educational models to market expectations. This global trend toward OBE has also engendered a need for higher educational institutions in Sri Lanka to move away from the teacher-centered model where the teacher played the central role in imparting knowledge toward a learning-based model where the focus is on what students know and can actually do at the end of their learning experience. Although the demand

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[1] In Sri Lanka GCE Advanced Level in the Commerce stream can be considered as school-level management education. Students in the Commerce stream mostly follow three subjects: Accountancy, Business Studies, and Economics. They have the option of selecting either Business Studies or Business Statistics and Economics or Information Technology. In addition, subjects offered such as Business and Accounting and Entrepreneurship Studies at the GCE Ordinary Level can also be regarded as part of school level management education.

for OBE is growing, it is a relatively new orientation in management education in Sri Lanka.

OBE marks a shift from the traditional concern of what teachers provide to a timely concern of what the learners learn, achieve, and become (Tam, 2014). In an OBE learning process, teachers are expected to act as facilitators of learning by creating and sustaining an effective learning environment for students to develop the competencies that the program of study expects to foster. The OBE model in education means "focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences" (Spady, 1994, p. 12). Hence, in an OBE model, learning outcomes, which denote the development or growth attained by students on the completion of a program of study, should be specifically identified. The development of the curriculum, learning, and assessment of the program of study should be guided by these learning outcomes (Spady, 1994).

While OBE is emphasized in management education, it is becoming increasingly important in highly professionally oriented disciplines such as accounting. Thus, accounting graduates should be capable of meeting the expectations of the accounting profession upon completion of their degree program (Gunarathne & Alahakoon, 2017). In the accounting profession these expectations are generally guided by the standards set by the global professional accounting institutions such as the International Federation of Accountants (IFAC).[2] The *Framework for International Education Standards (IESs) for Professional Accountants and Aspiring Professional Accountants* published by IFAC (2017) plays a noteworthy role in providing directions for OBE in accounting. According to IFAC (2017), the objective of accounting education is to produce a competent accountant with professional knowledge, professional skills, and professional values, ethics, and attitudes. Learning activities in accounting education programs are composed of different processes, activities, and outcomes. These learning activities include education, training, and practical experiences. The activities contribute to the achievement of competence in accounting.

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[2] Founded in 1977, IFAC is the apex body of the global accounting profession dedicated to serving the public interest. IFAC has over 175 members and associates in more than 130 countries, representing almost 3 million accountants in various organizations (IFAC, 2018).

Not only IFAC member bodies but also many business schools that offer accounting degree programs tend to follow the standards set by IFAC. In many countries, the accounting degree programs offered by universities try to align their educational activities to IFAC standards on a normative basis to meet the expectations of the industry. The next section describes OBE in academic accounting education in Sri Lanka.

OBE in Academic Accounting Education in Sri Lanka

This section focuses on OBE in accounting education in Sri Lanka with specific reference to accounting degree programs. It examines how the learning outcomes of these degree programs are developed to suit the competencies required by the accounting profession (AACSB, 2018; Lawson et al., 2014).

All university degree programs are required to comply with the requirements of the Sri Lanka Qualification Framework (SLQF), which is the national framework for all higher education qualifications offered in Sri Lanka. SLQF requires identifying the learning outcomes, which describe "what learners should know, understand and can demonstrate upon the completion of a study program" (University Grants Commission [UGC], 2015, p. 12). Hence, the learning outcomes of an accounting degree program (referred to as Program Leaning Outcomes—PLOs) should be developed in compliance with the learning outcomes identified in the SLQF in terms of knowledge, skills, attitudes, values, professionalism, vision for life, mind-set, and paradigm. These PLOs should suit the Bachelor's Honors qualification at the placement level for these degree programs and in turn guide the development of its curriculum and teaching, learning, and assessment methods.

More specifically, an accounting degree program should follow the subject benchmark statement (SBS)[3] in accounting, which identifies the learning outcomes specific to the discipline of accounting. SBS broadly demarcates these learning outcomes under two headings: "subject

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[3] SBS describes the nature of study and the academic standards expected of graduates in specific subject areas, and in respect of particular qualifications. It provides a picture of what graduates in a particular subject might reasonably be expected to know, do and understand at the end of their program of study (Quality Assurance Agency [QAA], 2016).

specific knowledge and skills" and "cognitive abilities and related general skills".[4]

In addition to these academic standards, some of the accounting degree programs in Sri Lanka have followed the IESs of the IFAC framework in response to the expectations of the professional environment as the accounting degrees mainly cater to the accounting profession (see the previous section for more details). In the Sri Lankan context, all academic degree programs in accounting comply with SLQF and SBS in accounting as a mandatory requirement and the compliance is assessed in the reviews of these degree programs (Gunarathne et al., 2019). However, compliance with IESs is not uniform among the accounting degree programs as it is not a mandatory requirement. Nevertheless, some accounting degree programs in Sri Lanka have followed them voluntarily mainly with respect to curriculum development activities.

OBE at the University of Sri Jayewardenepura

Out of all the academic degree programs in Sri Lanka, the first accounting degree program in the country's university system, B.Sc. Accounting (Special) Degree (hereafter referred to as *accounting degree program*) offered by the Department of Accounting (DA) of the University of Sri Jayewardenepura, is specifically selected as it has the highest level of adoption of OBE model in line with SLQF, SBS in accounting and IESs, as the authors understand. The annual intake to the accounting degree program at present is 200 students and they represent those who have obtained high z-scores on the university admission examination.[5] At present, the academic staff consists of 28, both permanent and visiting, lecturers. This also includes two endowed chairs,[6] which allows the DA to attract foreign academics of repute from time to time. The two authors of this chapter serve as academics in this department and have years of experience in curriculum revision, teaching, and other related academic

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[4]SBS cognitive abilities and related general skills refer to the expected skills and abilities in the critical evaluation of facts, independent learning, analysis, numeracy, information and communications technology, communication, and working with others.

[5]The students are admitted based on the z-scores obtained at the G.C.E. (Advanced Level) Examination conducted by the Department of Examinations in Sri Lanka.

[6]These two endowment funds have been received from EY and KPMG, two of the big four public accounting firms.

activities. In addition, the first author serves as the Quality Assurance Director of the university. These experiences of the authors were supplemented with a document analysis for collecting data for the chapter.

From its inception in 1991, the accounting degree program has followed an OBE model mainly by considering the requirements of the accounting profession as a means of improving the employability of the graduates (Gunarathne & Alahakoon, 2017; Senaratne & Gunarathne, 2010). Hence, it has been offered as an academic degree with a professional orientation. This OBE orientation has led to the introduction of several salient features such as a two-year internship program in accounting and finance, information technology-integrated accounting courses, business communication skills in English, and English medium instruction from the beginning, which were quite unconventional in an academic degree program at that time. Among these, the most notable feature is the two-year internship program, which had been in operation as an integral component from its inception. It has created a positive impact on the acceptance and employability of accounting graduates and, over time, has become a comprehensive skill development program.

With the passage of time, this accounting degree program has seen many developments in the light of changes in the accounting profession and the institutional environment in regard to socioeconomic and technological factors and the resulting developments in the business sphere (Gunarathne & Alahakoon, 2017). Accordingly, this accounting degree program has expanded its coverage by including courses on sustainability accounting and reporting, data analytics in accounting, corporate governance and ethics, and enterprise resource planning while converting the internship program into a fully fledged skills development program. Furthermore, the research orientation of the degree program has also been strengthened over time to improve critical thinking, analytical skills and learning to learn skills of accounting students to respond effectively to changes in the external environment.

In this gradual evolution, the present OBE model of the accounting degree program is a reflection of the alignment with SLQF, SBS in accounting, and IESs of IFAC as shown in Table 2.1.

Accordingly, the curriculum has been developed by adopting a whole-person development approach to accounting education, and its teaching, learning, and assessment activities have been constructively aligned with a well-defined graduate profile and attributes, as presented in Fig. 2.2.

Table 2.1 Curriculum mapping of the degree program

Graduate Attributes (GA)	Program Learning Outcomes (PLO)	SLQF—Categories of learning outcomes	SBS in accounting	IES
Knowledgeable and skilled in accounting and business (GA1)	**PLO1:** Demonstrate knowledge and understanding in the field of accounting and allied fields **PLO2:** Apply subject-specific knowledge and professional skills in diverse business situations in local and global environments	1. Subject/theoretical knowledge 2. Practical knowledge and application	Subject-specific knowledge and skills	Technical competence (IES2)
Knowledgeable and skilled in appreciating accounting in its wider sociopolitical context (GA2)	**PLO3:** Demonstrate knowledge and understanding of contemporary technologies and their application to professional and business contexts	1. Subject/theoretical knowledge 2. Practical knowledge and application		
Enterprising and adaptable to change (GA3)	**PLO4:** Identify emerging trends in the local and global business environments and introduce innovations to enhance effectiveness of accounting practices	6. Managerial and entrepreneurship 9. Adaptability and flexibility	Cognitive abilities and related general skills	Professional skills (IES3): (1) Intellectual (2) Interpersonal and communication (3) Personal (4) Organizational
Critical thinkers with analytical and problem-solving skills (GA4)	**PLO5:** Analyze and critically evaluate arguments and issues pertaining to the accounting discipline	5. Creativity and problem-solving 7. Information usage and management		
Reflective knowledge seekers committed for lifelong learning (GA5)	**PLO6:** Apply research skills to devise solutions to practical issues pertaining to accounting **PLO7:** Recognize the need to engage in independent and lifelong learning	11. Vision for life 12. Updating self/lifelong learning		
Skilled in communicating accounting and management issues in professional and business contexts (GA6)	**PLO8:** Communicate effectively both, oral and written, in professional and business contexts using appropriate technologies	3. Communication 7. Information usage and management		
Effective leaders with self-awareness, interpersonal skills, and aesthetic sense (GA7)	**PLO9:** Demonstrate leadership and interpersonal skills in workplaces of cultural and linguistic diversity	4. Teamwork and leadership 8. Networking and social skills		

Table 2.1   (continued)

Graduate Attributes (GA)	Program Learning Outcomes (PLO)	SLQF—Categories of learning outcomes	SBS in accounting	IES
Responsible citizens who are ethical and professional in action (**GA8**)	**PLO10**: Show understanding and commitment to professional ethics and responsibilities of the accounting practice through behavior **PLO11**: Demonstrate understanding of social and civic responsibilities, human rights, and matters pertaining to sustainability	11. Vision for life 10. Attitudes, values, and professionalism		Professional values, ethics, and attitudes (IES4): (1) Professional skepticism and professional judgment (2) Ethical principles

Source Department of Accounting (2018)

Graduate Profile

Competent academic accounting professional with requisite knowledge, skills, attitudes, values and ethics

Whole - Person Development Approach

Research - 2 Courses

4th — 5 Courses | 1 Course | SDPIA 4 Courses

6 Courses | 3 Courses

3rd — 5 Courses | 5 Courses | 1 Course

2nd

1st — Management Common Program

1 Course | 8 Courses | 2 Courses

Core Streams — Accounting | Management and Finance | Skill Development

Sub Streams — FA | MA | GAA | TL | AISM | MGT | FIN | ECN | QT | INT | MPCSD | CSD | KSLL

Values — Wisdom, Intellectual rigour, Professionalism, Truthfulness and Ethical conduct, Equality, Helpfulness and Compassion

Key to Abbreviations :

FA - Financial Accounting
MA - Management Accounting
GAA - Governance, Auditing and Assurance
TL - Taxation and Law
AISM - Accounting Information Systems and Modeling

MGT - Management
FIN - Finance
ECN - Economics
QT - Quantitative Techniques

INT - Internship
MPCSD - Management and Personal Capacity Skills Development
CSD - Communication Skills Development
KSLL - Knowledge Seeking and Learning to Learn
SDPIA - Skill Development Program of Intern Accountants

Fig. 2.2 Graduate profile and attributes. *Source* Department of Accounting (2018)

A notable feature of the present OBE model of the accounting degree program is the skill development program (see Fig. 2.3).

The skill development program integrates internship, development of management and personal capacity, and research. These components are briefly explained next.

a. **Internship program**
   Under the internship program, accounting students work as interns in either public accounting firms (popularly known as audit firms) or mercantile and financial sector institutions (non-audit sector firms) in the third and fourth years of their degree program on weekdays, under a supervisor with professional qualifications in accounting as stipulated by DA. During this period, students attend study sessions at the university on weekday evenings and weekends. The internship program provides practical experience in a number of subdisciplines in accounting while integrating the theoretical and
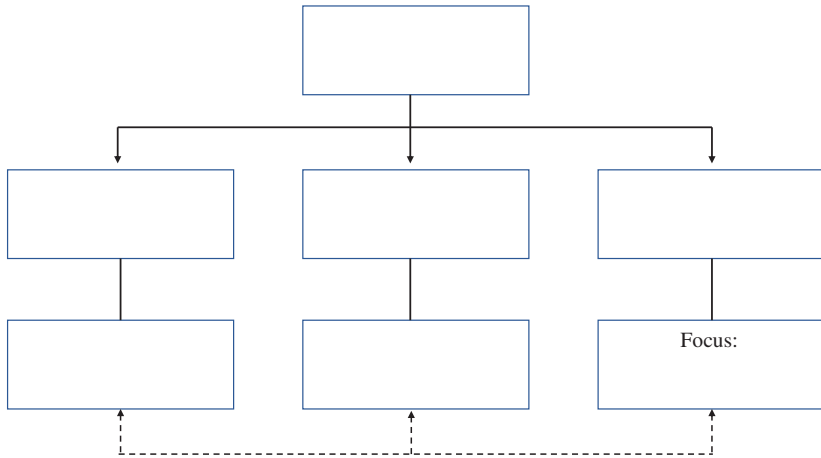
Fig. 2.3 Structure of the skill development program of the accounting degree. *Source* Adapted from Department of Accounting (2018)

practical aspects of the disciplines of accounting and general management. This program has a range of assessment methods including training supervisor's evaluation, training records evaluation for completion of training hours and coverage of training in terms of experience and industry categories, and a *viva voce* on the training experience of students and associated issues.

b. **Management and personal capacity development**

This component of the OBE model focuses on developing a range of soft skills and values through workshops and guest lectures conducted by industry experts and the skill projects carried out by the students. Based on these activities, the students are made to reflect on key learning points. They are assessed based on a range of methods including reflective logs, presentations and a portfolio of learning experiences. From the first year, their communication skills are improved through presentations, academic writing and self-learning activities. These components are introduced in the first two years of the degree program to develop a firm foundation for students to engage in internship in the third and fourth years. During the third and the fourth years, these skills are sharpened through the internship program and the research project.

c. **Research project**

Another noteworthy feature of the OBE model is the research project in accounting, in which the students conduct a research study and produce a report in their final year. In addition to enhancing knowledge, creative thinking, analytical ability, and inquiry, this project aims to ignite the passion and need within the students to focus on continuous lifelong development. The internship program provides the basis for students to identify researchable issues in accounting and related fields. On the other hand, other skill development activities will facilitate the conduct of the research and communication of its findings.

As the connected arrows show in Fig. 2.3, these three components of the skill development program are interconnected and complement each other. Among them, the internship program has contributed significantly to developing the competencies expected of the accountancy profession and thereby created a definite competitive edge for the students in the employment market after graduation. Furthermore, they learn how their subject is practiced in the real world and its interdisciplinary aspects. This also helps them experience diverse professional, interpersonal and ethical issues in the field. This necessitates the development of a clear link between the internship/training areas and the learning outcomes of other courses of the degree program. Both teacher-educators (and student teachers) and policymakers can draw many inferences for teacher education from this OBE model of the accounting degree program. The lessons learned are discussed in the next section with a specific focus on the skill development program.

Lessons for Teacher-Educators and Policymakers

Teacher education is a multidimensional process, which involves both pre-service and in-service training in discipline-specific knowledge, pedagogy and assessment methods. Hence, teacher-educators have to devise policies and mechanisms for holistic training of student teachers in these different dimensions. In this respect, several inferences can be drawn from the OBE model of the accounting degree program. The OBE model embedded primarily in the skill development program, firstly, prepares the accounting students for internship by developing their personal

capacities, secondly, facilitates internship in an actual work setting to understand the connection between theory and practice, and finally, trains the students to reflect on their learning and seek new knowledge through research. This approach demonstrates that teacher-educators need to develop a comprehensive and holistic approach to the training of student teachers encapsulating pre-service, in-service and also continuous development components to develop their subject-specific knowledge and skills as well as cognitive abilities and skills. This would encourage student teachers to (a) improve their knowledge of theoretical concepts as well of their practical application and (b) enhance the effectiveness of pedagogical and assessment methods used by student teachers in courses of study as described in the following subsections.

Lessons for Pre-service Teacher Training

This internship program primarily provides pre-service training for the students to deal with clients in an actual work setting before they enter the accounting profession. Thus, the internship program of the accounting degree program offers several lessons for teacher-educators as a pre-service training arrangement, namely, (a) provision of a sound theoretical knowledge to student teachers in the related discipline and pedagogical methods used in schools; (b) development of soft skills and qualities of student teachers to prepare them for pre-service training in schools; (c) placing them in schools to work as trainee student teachers under the guidance of senior teachers to engage in teaching and learning activities; and (d) monitoring and assessing the training received by student teachers using multiple modes.

The abovementioned mechanisms provide a sound footing for pre-service teachers to carry out teaching, learning, and assessment activities with confidence in schools where they are posted to work upon the completion of pre-service training. As exemplified in this case, teacher-educators should create programs during this pre-service training arrangement in which the student teachers continue to acquire knowledge and reflect on their workplace experience. Therefore, teacher-educators should be capable of guiding and advising student teachers on how to integrate their theoretical understanding with the practicalities of the workplace. This also creates a need for teacher-educators to continuously develop and update the changes taking place in the actual work setting of the student teachers to align their programs with their experience. On the other hand,

this could fertilize the cross-learning of teacher-educators to continuously improve their teaching, learning, and assessment activities to keep abreast of developments in the teaching profession.

This also offers some important lessons for teacher performance evaluation systems in Sri Lanka, which currently follows a top-down approach with a limited focus. At present teacher evaluations in Sri Lanka are carried out by the school principal along with Sectional Heads[7] of the school and the In-Service Advisors (IAS)[8] operating at zonal levels in different subject areas. School principals evaluate the teachers based on examination results in the subjects taught by the teachers, commitment to work and compliance with administrative procedures. This evaluation process is based on the reports of the Sectional Heads of schools in large schools. IASs in different subject areas visit schools on predetermined days, evaluate the quality of teaching and help the teachers to improve while guiding them on new developments in subject areas. No formal teacher evaluation is done by students at school level in Sri Lanka. Nevertheless, the Ministry of Education has also introduced a teacher's progress record book where the teachers are expected to record their reflections on their teaching, details of professional development activities undertaken and additional work they have engaged in at school. These books are expected to be used in the evaluation of teachers by the principals and also as a basis on which to recognize their abilities.

The teacher-educators can draw from these areas for the development of teacher training and evaluation programs. As the academics of this degree program do, teacher-educators can also visit the actual pre-service work settings of student teachers and solicit 360-degree feedback from the school administrators, peer teachers and even students to identify the improvements that need to be made in the existing teacher training programs and pre-service arrangements. Teacher-educators can assess and improve their teacher training programs by soliciting the views and evaluations of the principals, sectional heads, IASs, and also students. This will facilitate the identification of valuable areas for teacher training and development.

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[7] Senior teachers of schools are appointed as Sectional Heads for each grade or subject area.

[8] The IASs on different subject areas operate in zones under the provincial education ministries. Senior teachers in subject areas are appointed as IASs.

Lessons for In-Service Training

When the internship program of the accounting degree program is considered as an in-service training arrangement for student teachers, it offers several lessons for teacher-educators. This emphasizes that once student teachers are placed in schools, the focus should be on continuous professional development to improve their effectiveness as teachers. This is particularly important in disciplines such as accounting in which standards, guidelines, taxation, and auditing practices change on a frequent basis. Consequently, teacher-educators should focus on a range of methods for training student teachers on a continuous basis as in-service arrangements. These methods include mentoring of junior student teachers by senior colleagues, engaging them in practice sessions in schools (e.g. on-site visits to schools by teacher-educators), conducting workshops and seminars for student teachers with the participation of subject experts to keep abreast of new developments in the related discipline and providing formal training for them on the philosophy and mechanism of OBE and student-centered learning (SCL).

Lessons for Integrating Academic and Professional Standards in Teacher Training Programs

Another important aspect this case highlights is the need to integrate various academic and professional standards in teacher training and education programs in professional disciplines such as accounting and engineering. As presented in the chapter, the skill development program of the accounting degree program has been developed in compliance with the national educational standards such as SLQF as well as local and international discipline-specific education standards (for example, SBS in Accounting and IESs). Thus, this case indicates that teacher-educators will have to train student teachers on the need to incorporate both general educational standards and the specific requirements of their discipline in curriculum and teaching, learning, and assessment activities of a study program. This should be a vital factor in both pre-service and in-service arrangements so as to keep abreast of the continuous development in the subject areas and educational methodology.

Moreover, this case emphasizes the importance of exposing the student teachers to practical situations relevant to their discipline through internships or formal on-site visits to organizations to understand how

the theoretical concepts of their disciplines are applied in practice and the associated issues from an interdisciplinary perspective. In areas with a high level of practical orientation such as management or accounting, this aspect is very important for student teachers in improving the quality and relevance of their teaching. This practice-orientation will enable student teachers to understand the application of theoretical concepts in real-world situations and associated issues ranging from practical to interpersonal and ethical issues.

Another important inference is that student teachers should be trained to reflect on their teaching and assessments, to improve teaching, learning, and assessment methods, and bring novelty to classroom teaching so as to facilitate the OBE and SCL models. Such developments will make the teaching of an educational program more meaningful and improve the relevance and quality of the learners' educational experiences. This also has implications for teacher-educators and educational policymakers. This case points to the need for student teachers and teacher-educators into be conversant not only with teaching but also with how theoretical knowledge is applied in the workplace. Therefore, education policies should support novel approaches to teacher development such as *pracademic placements*.[9] In this context, the identification of training needs and training of teacher-educators and student teachers should be dealt with as a policy-level initiative in schools and teacher education institutions. In this process, teacher-educators as well as student teachers should be responsive to the changes in education methodology and related disciplines. Hence, teacher training needs to be looked at holistically with due consideration for the multiple dimensions associated with it.

Lessons for Teacher-Educators and Education Policymakers

In this context, the OBE model of the accounting degree highlights a number of important concerns that teacher-educators and education policy makers should focus on when devising policies on teacher education. Firstly, it highlights that teacher-educators should develop the skills of

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[9] Pracademic placements enable academics (or student teachers) to serve in an actual work setting (i.e. to become a real practitioners) so that they can integrate academic teaching and research with communities of practice to achieve a range of positive outcomes (Posner, 2009).

student teachers on how to link discipline-specific practical experience with classroom teaching. Secondly, it stresses the need for teacher-educators to train their student teachers to adopt pedagogical methods such as case studies, reflective logs, and presentations to help the students to reflective on learning. Thirdly, teacher-educators should train student teachers in the use of appropriate assessment modes to evaluate the achievement of learning outcomes by the students. Finally, it highlights the importance of continuous improvement and development of teacher-educators and education policies especially in disciplines with a high practical orientation. This further necessitates the strengthening of quality assurance mechanisms in teacher-education process with an OBE model in focus.

CHALLENGES AND THE WAY FORWARD

This section explores the challenges that can be encountered in teacher education and the possible strategies to face them when an OBE model is introduced. These inferences relate to the challenges faced by the accounting degree program in the implementation of the OBE model (particularly the skill development program). The challenges associated with the adoption of the skill development program of the DA have stemmed from both internal and external sources. Internal challenges include resistance to change in the existing educational models, increased workload of internship that poses a challenge for the students in managing their study, work and personal life, and additional workload of the academics that affects work-life balance owing to lectures in evenings and weekends in addition to weekdays. External challenges mainly include difficulties in finding placements for internship in corporate sector organizations. These internal and external challenges faced indicate the possible challenges in training student teachers on the OBE model in school-based education.

Managing Resistance to Change

The OBE model to education requires moving away from a teacher-centered education model to SCL methods, where the role of student teachers will be redefined as a guide or facilitator of students. Hence, student teachers will have to develop the requisite skills and imbibe the relevant attitudes needed to face this challenge effectively. From a

teacher-educator's perspective, this demands a change in how the training programs for student teachers should be conducted to develop the requisite skills, abilities, and attitudes of student teachers. Hence, changes are expected at the different layers of the teacher education process so as to implement a proper OBE model in school education.

Introducing Curriculum Revisions in Teacher Training

A major challenge that would be faced in this respect by teacher-educators is the suitability of the curriculum of teacher training programs (which are focused on teacher-centered methods) to meet the requirements of an OBE model. Hence, the curriculum of both pre-service and in-service teacher training programs should be revised to include both knowledge dissemination sessions and activities for active learning by student teachers. The active learning mechanisms would involve scenario/problem-based learning activities for them to practice SCL methods during pre-service and in-service training arrangements. Meanwhile, the progress gained by student teachers should be assessed and feedback provided for improvement.

Finding Training Placements for Student Teachers

As DA experienced in finding training organizations, another main challenge that could arise in the conduct of teacher education programs is the selection of suitable schools for training. Hence, the effective conduct of both pre-service and in-service arrangements requires developing clear arrangements in these respects with the school authorities. In pre-service arrangements, it is necessary to identify the schools that would facilitate the conduct of practice sessions for student teachers. As these new student teachers work with existing staff in schools, mutually beneficial time tables and work schedules need to be designed. Further, teacher-educators and student teachers should be willing to attend lectures or training sessions at weekends and/or evenings during their pre and in-service arrangements. Alternatively, student teachers should be released from school duties to attend these sessions. In the experience of DA this approach is effective in giving student teachers an immediate reflective learning experience. Hence, teacher-educators need to address these issues at the design stage of teacher training programs. Similarly, successful in-service arrangements would require the cooperation of

schools where student teachers are employed. This is to ensure that continuous teacher training arrangements would not interfere with the activities in the schools. Hence, mutually beneficial arrangements need to be made with the school authorities focusing on the coverage, duration, and timing of these programs.

Adopting Applied Learning Programs for Teachers

In disciplines such as accounting, another major challenge is the development of applied learning programs for student teachers (e.g. pracademic placements and/or a field studies) to provide the opportunity to understand the application of theoretical concepts in practice. This will pressure teacher-educators to devise such mechanisms within the teacher training programs and also to engage student teachers in such activities as part of the training programs, which demands additional time and effort. This warrants the teacher-educator to introduce timely changes to the content and pedagogy of teacher training programs and to establish formal linkages with the training providers (i.e. business sector organizations) to conduct such programs for teachers as part of their pre-service and in-service training programs. This requires devising mechanisms at the school level to allow student teachers to apply the new knowledge gained and skills development through such programs in their teaching activities. The mechanisms devised in this respect could include provision of paid leave for teachers to participate in applied learning programs, introduction of incentives by way of salary increments for teachers who participate in such programs, recognition of applied training and resulting improvements in subjects and creative methods adopted by teachers in the promotion schemes, and by introducing teaching excellence awards at school level.

Introducing Internal Quality Assurance Methods on Teacher Training

The challenges and overcoming them point to the institutionalization in schools of the training needs and training of student teachers. This requires the establishment of the relevant internal quality assurance mechanisms in these institutions for the training and development of student teachers. This would lead to a clear identification of the roles of the trainer (teacher-educators) as well as of the trainee (student teachers) in

accordance with the goals of the school. Hence, by embedding teacher training in the internal quality assurance process would ultimately contribute to improving the relevance and quality of study programs offered by schools.

The experience of DA of over 20 years with the internship program also highlights the fact that the OBE model has been successful because accounting graduates benefited from it in securing employment. This has brought acceptance of the OBE model at DA and thereby developed close linkages with the industry, which provided both training and subsequent employment. Similarly, the student teachers who have undergone training with an OBE model and realized its benefits will set the stage for others to appreciate the importance of novel teaching methodologies. Hence, they will advocate the need to develop a close link among teacher-educators, student teachers, and training institutions.

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Paradoxes in Teacher Education: Voices from the Indian Context

Jyoti Bawane

Educational Scenario

Indian society is primarily pluralistic, characterized by diverse ethnic, linguistic, religious, and caste groups that interact and coexist under a political system largely governed on the principles of democracy, secularism and social justice. In pursuit of sustaining its commitment toward pluralism, the Indian educational system has introduced new interventions and witnessed a series of reforms in its policies periodically to ensure its diverse school-going clientele had equal educational opportunities in terms of access and quality of school education. Eventually, building alternative educational set-ups has created huge heterogeneity in the schooling system (Govinda, 2013; Thapan, 2014), which is said to be not only stratified and hierarchical in terms of its clientele, but also differentiated in terms of curricular and pedagogic themes (Sarangapani, 2014).

Despite the relative success gained in terms of enrollments at the elementary level, educational exclusion continues to plague selected marginalized communities like the poor, girls in rural areas, tribal groups

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and the scheduled castes in the society (Ramachandran, 2004). While a recent ASER (2017) report revealed that even if the enrollment of the 14–18 age group children in rural areas has increased, the worry is that a significant proportion still lacked foundational skills like reading and arithmetic. Likewise, the enrollment gap between males and females in the formal education system increased with age. Moreover, wide-ranging differences and unequal progress among different groups within this socially stratified society were prominent across States as well as within States (Govinda & Sedwal, 2017; Majumdar, 2017) and the issue of student drop-out continues to exist as one goes to higher levels of education. The latest national assessment survey report even showed that the national average achievement of the students from class 3 to class 8, deteriorated as one proceeded to higher levels of education (Chopra, 2018; Senapathy, 2018). According to the PROBE Report of 1999:

> India has a long history of educational disparities being used to consolidate social inequalities based on class, caste and gender. To some extent, this pattern continues to apply today: privileged social groups have much better educational opportunities and this further consolidates their privileges. Further, the link between educational disparities, and social inequality is gaining strength day by day, as literacy and education become more important tools of self-defence. (p. 5)

Beteille (2014) contends that, 'Children from families that are well endowed with material, cultural, and social capital will generally do better than others in any system of free and open competition, although there will always be openings for the others if they are specially gifted or are favored by luck' (pp. 28–29). Although the State has so far introduced various interventions in pursuit of creating an egalitarian educational system, at the same time it also created a discriminative pattern in education by favoring privatization, which largely benefited the privileged and not the disadvantaged (Sinha, 1997). Interpretations between educational qualities with social inequities can be conceptualized better when one reverts back toward school dynamics and attempts to understand the forces that influence the position of a teacher and the teaching-learning processes.

This chapter is based on the premise that the quality of school education depends on the quality of teachers, while the quality of teachers relies to a large extent on the quality of the teacher education program s/he has undergone while, or prior to, being in service. Hence, understandings

about the relevance and drawbacks of teacher education can be built by drawing inferences from the performance of school education and as well from the nature of functioning of schoolteachers in Indian context. The majority of the discussions and interpretations made are based on findings revealed by research conducted on Indian schooling and teacher education.

School-Teacher Dynamics

Schools are claimed to be spaces where identities are fluid, created and recreated over innumerable times and the social, political, and cultural forces shape school experience in different social contests (Thapan, 2014). With the prevailing social diversities, most Indian classrooms are often bound to create diverse thinking and learning spaces as students are constantly interacting with others who belong to varied economical and sociocultural (linguistic, religious, economic class and caste) groups. Under such fluid circumstances, for teachers, to understand and familiarize themselves with the dynamics of learning in such classrooms may initially seem quiet complex and challenging. Besides, during this process of getting themselves familiarized with the classroom diversities, there are other challenges these teachers are likely to encounter depending on the nature and type of school they are associated with, i.e., government, private-aided, private unaided or self-financed one (Table 3.1).

For instance, low-income or local governance schools situated in rural (Zilla Parishad schools) or urban (Municipal Corporation schools) context, can often be more demanding for teachers as they commonly have large class sizes, first-generation learners, inadequate infrastructure and limited access to technology (British Council, 2017; Ramachandran

Table 3.1 Elementary Schooling System in India

Type of school	School category	Management	Funding
Public	Central	Central government	Center
	State	State government	State
		Local governance	State
Private	Private aided	Private management	State
	Private unaided	Private management	Not funded
	Self-financed	Private management	Not funded

et al., 2016). Primary school teachers, especially in rural areas are more likely to be situated in a multigrade setting due to lack of teachers. In addition, the uneven distribution of teachers among schools, accompanied by 'teaching in difficult contexts like large-sized classrooms of 50 and above, multi-grade classrooms and teaching children of first generation learners, obtaining parent and community support and implementing incentive schemes are a set of confrontations they very frequently face in reality' (UNESCO, 2001, p. 55). Besides majority of these state government schools are devoid of nonteaching or support staff, and hence teachers including the school principals are compelled to perform nonteaching functions. The practice of inducting school teachers for nonteaching duties, which are remotely related to their school or even teaching, is a common phenomenon in State government schools both in rural and urban context. These teachers are regularly engaged in activities relating to census-taking, elections, disaster management, migration surveys, livestock survey and immunization. This practice remains regardless of the clause established by the Right to Education (RTE) 2009 restricting assignment of nonteaching duties, which apparently has only been reduced on paper but not so in the field (Mehta, 2018). The Right of Children to Free and Compulsory Education Act of 2009 clearly states, under section 27 that: 'No teacher shall be deployed for any non-educational purposes other than the decennial population census, disaster relief duties relating to elections to the local authority or the State Legislatures or Parliament as the case may be' (p. 8). A media release (Education World, 2018) indicated that government school teachers spend only 19.1% of their working hours in teaching and the remaining time is devoted to nonteaching core activities (42.6%), nonteaching school-related activities (31.8%) and other department activities (6.5%). These figures raise a serious concern on how much teaching actually takes place in these classrooms and even if teaching occurs, to what extent they are sufficient, relevant and effective. Hence, many times, it may not be appropriate to hold the teachers responsible for the school performance when most of the teachers are more involved in non-academic tasks (Bawane, 1999). Not to mention the stress experienced by teachers due to overburden of schoolwork coupled with low monetary rewards or recognitions has increased the chance of stagnation and ultimately leading to burnout (Dawn, Talukdar, Bhattacharjee, & Singh, 2016; Gangopadhyay, 2012). Furthermore, the nature of competence required to maximize learning in stress-driven classrooms may

not be easy but a demanding task for its teachers especially when the autonomy of teachers is frequently constrained by the structural impositions laid by the school management, curriculum and the State (Thapan, 2016). From the above details, it is evident that the role and responsibilities of Indian teachers can at times be quite complex and difficult. The prime question is to what extent the above complexities and realities are taken into consideration while drafting and planning the teacher education framework? If these teacher-context realities and classroom dynamics were fully considered what reforms were introduced to enhance teacher education in India?

Teacher Education Framework

With the changing patterns in the educational system, the teacher education framework in India has also experienced reforms by attempting to develop paradigms that more responsive to sociocultural realities and impending global standards. The 1986 National Policy of Education emphasized teacher education to be a continuous process wherein pre-service and in-service components were inseparable. It also envisaged the National Council of Teacher Education (NCTE)—established in 1995 as a statutory body with autonomous status—which was expected to formally regulate the norms and standards in teacher education system throughout the country. Prior to this, The Archaya Ramurti Committee of 1990 emphasized the internship model for teacher training to enable prospective teachers obtain the actual field experience in a realistic situation. Establishment of District Institutes of education and training (DIETs) in 1987, a policy intervention by the Government of India, was a promising and positive development toward pre-service and in-service teacher education in the country. These institutes were envisioned to restructure, transform and improve the quality of elementary teacher education by providing decentralized technical support to district and subdistrict level functionaries in the areas of planning and management, academic and resource support at the grassroots level through innovative methods. This approach of decentralizing the training mechanism and providing guidance and support to teachers on a continuous basis at their workplace signaled a major step for refining the teaching-learning processes (Govinda & Sedwal, 2017).

Another significant attempt on transformation in the framework of teacher education took place when the 2005 National Curriculum

Framework (NCF) on school education situated the curriculum debate in its frame of redefining learning through an interdisciplinary engagement with the learners. It provided directions to National Curriculum Framework for Teacher Education (NCFTE 2009), by placing several demands and expectations on the teacher, and its need to be addressed through pre-service and continuing service teacher education. This was when the national framework chose to depart from the past by centering toward preparing professional and humane teachers through a process-based approach. It also offered teacher education institutions the scope for autonomy and raise themselves as dynamic center's of progressive education movements. Subsequently, on the basis of the Justice Verma Committee Report (2012) entitled, 'Vision of Teacher Education in India', the NCTE initiated the need to extend the one-year Bachelor of Education (B.Ed) program to two-year duration in order to enhance the practical experiences of the prospective teachers and M.Ed program was also extended to two years. This move to modify and intensify teacher education was not well received by most of the teacher education institutions. Despite resistance and anguish displayed by both institutions offering teacher education and prospective teachers toward longer duration, reforms in pre-service and in-service teacher education have begun to emerge after prolonged debates in the recent years.

Apart from the above reforms, the NCTE considerably encouraged innovation in teacher education and few initiatives were prominent in selected institutions across the country. For instance, a school-based teacher preparation model called I Am A Teacher (IAAT) is a one-year Post Graduate Diploma in Learning and Teaching (PGDLT) program, was initiated by a not-for-profit organization in Gurgaon. This course prepared teachers through a model where prospective teachers spent minimum three days practicing in a host school and the mentoring model prepared them through a blend of theory and practice. According to a student who completed this program expressed;

> A very precious take-away from the program is that it has put me on a path of self-reflection. The journey inwards has been a tumultuous journey which I resisted initially. I remember that, there were many reflections that I was unable to do to my satisfaction because subconsciously I was closing myself out. There were walls that I had built around myself and I wasn't yet aware of them. (Indumathi & Sood, 2018, p. 105)

As a special case, an experiment was conducted by a selected DIET in Northern India wherein they adopted a school and worked intensely with the teachers and their students to identify and resolve their problems. During this process of resolving, the DIET was able to generate several resources in the form of contextualized curricular materials, which benefited the school in many ways (Rajan, 2012). Another unique initiative that needs to be highlighted is the '*Guru Chethana*' program started by the Government of Karnataka on teacher professional development for in-service teachers. This focused on enabling teachers to mold themselves as reflective practitioners, by questioning their own curriculum and establishing linkages between theory and practice (Periodi, 2018). Prior to this, in the early 1990s another intervention that had received considerable recognition was the Hoshangabad Science Teaching Project which incorporated observation and experimentation to science teaching that facilitated children of middle school to work collectively, establish interrelationship, infer linkages, consequences and generalize from their observations. This was a comprehensive curricula package consisting of independent resources; manual, evaluation framework, teacher support mechanisms, including training and follow-up (Dewan, 2018a; Mukherjee, 2017). Although this program closed down in 2002, it was reinstated and recommended for application in one of the prominent national policy documents, the NCF 2005 of NCERT (2005). Ultimately, it does seem that innovations have been attempted and taken place in different parts of the country, but efforts to replicate them at a wider scale have failed possibly due to poor advocacy and regulatory reasons.

Incidentally, one of the earliest innovative integrated models of teacher education initiated by the Regional Institutes of Education (affiliated to NCERT, New Delhi), was although acclaimed nationally, remained confined to RIEs and was rarely replicated by other institutions. Lately, the National Council for Teacher Education (NCTE) recommended this program for wider adaptation, but this program failed to be implemented at a large scale. Probably, if the effectiveness of these integrated programs, was actively shared to a wider audience and advocated vigorously either through research or academic readings, achieving smoother acceptance by the larger teacher education community would have been easier (Ahmad, 2018).

Shortcomings

While speaking of the shortcomings in teaching education, several of these have been repeatedly raised and highlighted over the past few decades.

Operational Framework

A very common observation was their inability to associate themselves with the contextual reality of schools and link them appropriately with the preparation process of teachers. The current teacher education curriculum framework although seems comprehensive and socially sensitive, it is seen that the agencies of teacher education have not been able to fully translate this framework into practice by developing appropriate syllabus and courses. This is noticed both in the case of the Diploma in Elementary Education (D.El.Ed) and Bachelor of Education (B.Ed programs). None of these sufficiently emphasize the philosophical underpinnings of progressive education, alternative education and the significance of addressing social and educational inequities embedded in a classroom. Rather their outlook toward teacher preparation were largely based on two untrue assumptions; one, that children are homogeneous and learn at the same pace and in the same way; and two, that teachers are homogeneous and need the similar inputs regardless of who and where they are from (Ramachandran, 2018). Over and above, these have an ideal presumption that normally teachers get to spend all their time on 'teaching' and 'assessing' performance.

Content Oriented and Unrealistic

Besides, teacher education is more or less centralized and continues to be conceptualized as enclosed compartments, with courses overloaded with content that stands distinct from one another. Some of the other concerns are that the content is rigid, wherein the courses are not interlinked with one another, and many a times the inputs provided are either inappropriate or insufficient for the desired purpose and inadequate efforts are made to bridge theory and practice components (Bawane, 2013; Bhat & Bawane, 1997). While discussing with a teacher educator, one of the major lacunae's of the pre-service programs is that they have been following the same strategies like micro-teaching for skill development, and Herbartian steps for lesson planning for the past few decades.

No new approaches have been introduced despite changing times. Interaction with a group of prospective teachers revealed that more importance was given to teaching methods and concepts like 'models of teaching' that were less applicable in the real classroom situation or at least during practice teaching. They also felt that the program was too textbook oriented and unrealistic. The truth was during practice teaching they often faced challenges relating to time management, maintaining classroom discipline and fulfilling psychological needs of the students, which actually was less addressed during the teacher education program. In most of the cases, the prospective teachers had to teach in classrooms with a capacity of more than 40 students. Even personal experience has shown that on many occasions the prospective teachers were unaware of the crude realities of low-income schools, especially with regard to their inadequate facilities and when are placed in such unexpected situations, they are perplexed and unable to adapt to such conditions (Dyer, 1996). Such experiences are common since the whole approach of teacher education has largely been confined to ideal situations such as model classrooms size, availability of optimal facilities and mono-grade classrooms. This was even observed by Naik (2008) who stated, 'The special methods required to be adopted in a single-teacher school are not at all included in training institutions of several States, and the subject is totally neglected' (p. 14). The other limitation is, even if training has touched upon multi-grade issues, their orientation has been superficial, by providing some organizational ideas, but not a comprehensive guideline for teachers who have to teach the entire curriculum to five classes (Blum & Diwan, 2017). The approach toward evaluation in teacher education institutions continues to be traditional, by being more inclined toward rigid and quantitative parameters. Apart from the above aspects, one would in general agree to some extent, Spivak's (2012) apprehensiveness about teachers' preparedness,

> is that even the good teacher, with the best will in the world, has been indoctrinated into rote learning that, even if s/he could understand the lugubrious prose and even if s/he had retained or imbibed enough general knowledge of the world-both doubtful propositions- the technique of emphasizing meaning is not what s/he would understand by teaching. (p. 330)

And this seems true to some extent, since the focus on competitions and rote learning are so deeply rooted in the schooling systems that it has raised serious concerns among educationists in the past few years.

Eliminating Biases and Prejudices

It is alleged that the diversity in the classrooms has increased both among students and teachers and one cannot expect all new teachers to be free from social and gender biases or other prejudices, unless deliberate efforts are being taken during the preparation period. Prejudices and discriminative tendencies among teachers and even children toward the marginalized communities were prevalent in different parts of the country either in the form of segregation or in expressing poor opinion about their academic abilities and interest toward education systems (Farooqi, 2017; Jha, 2003; Korra, 2017). Farooqi stated, 'They betray ignorance of the children's deprivation and unjustly attribute their "low performance" to natural inadequacy' (p. 80). Existence of both openness and resistance to reforms among teachers in the cultural construction of teaching and learning (Clarke, 2003) may indicate possibilities of gaps in the teacher education program in removing biased affiliations among teachers towards selected communities. Attempts to bring in changes in the culture and belief systems of teachers by effectively engaging them with the school and community are less addressed during teacher preparation. The courses hardly facilitate prospective teachers to debate on issues and concepts like 'discipline', 'punishment', 'poverty', 'social migration', 'social discrimination', 'secular classroom', 'disabilities', etc., to remove inherent biases among the teaching community. As a result, the prospective teachers carry forward their biases and prejudices to their classrooms and further strengthen discrimination and the incipient social differences among students of different social groups (Madan, 2004). Absence of systematic process to address prejudices and deeply entrenched attitudes has resulted in the persistent problem of discrimination and exclusion inside the schools and in the classrooms (Ramachandran, 2018). In response to this, Khader (2017) insisted on the need to 'decentre our focus from traditional ways of viewing and conceptualizing the world to critical reflection' (p. 2), and make a pedagogic shift toward critical pedagogy that allows teachers and students from diverse situations to theorize and recognize how social crisis affect the lives of educationally marginalized children.

In-Service

With reference to in-service training programs, the popular practice has been the 'cascade model' regardless of the transmission loss that

takes place after every phase of training. A few believed this model to be participative at times, but always had the risk of becoming mechanical, repetitive, diluted and distorted. Absence of a systematic process for planning the duration, content and process of training was raised since these issues were arbitrarily decided (Dewan, 2018b; Ramachandran, 2018). As per Ramachandran (2018),

> Teachers and the trainers we met over the years said that the training was poorly designed, implemented in an adhoc manner and has little connection with the real needs of teachers with respect to content or instructional strategies. No follow-up is conducted to evaluate the effectiveness or relevance of training content to teachers' practice. (p. 11)

Initiating inspections as well as providing feedback and support was found to be dysfunctional in most states and follow-ups were rarely conducted to evaluate the effectiveness or relevance of training (Ramachandran, 2018; Ramachandran, et al., 2016). Establishment of the DIETs essentially promised a new phase of elementary school-teacher preparation at a national level by being responsive to the local needs, which however, did not take place as envisioned. Teacher educational institutions, including DIETs on many occasions, have failed to fully conceptualize and apply their tenets and principles of the national policies at the ground level, specially referring to NCF of 2005, NCFTE of 2010 and Right to Education Act 2009 (NCERT, 2012). Most of these institutions have been less functional, poorly monitored and failed to perform their expected roles (Azim Premji Foundation, 2010) and it is unfortunate that the responsibility of teacher education has slowly been withdrawn from these institutions (Akai & Sarangapani, 2017). According to Dyer et al. (2004), both the pre-service and in-service programs focuses only on their formal classroom role and ignores the contextual reality of teachers, while the State perceives them more as being representatives of government rather than education professionals.

Accreditation and Regulation

Lastly, the other concerns of teacher education were accreditation, research and regulating the institutions offering teacher education. The approach of accreditating teacher education institutions was not approved by many for being more theoretical and neglecting the ground realities of the institutional processes. It was critiqued to be narrow in

framework and confined more toward quantitative indicators, primarily relating to infrastructure, faculty qualifications and learning outcomes, while no provisions were made to assess the process of education and quality of facilities offered by the institutions (Khandpur, 2018). In terms of research, teacher education institutions' involvement toward development of research-based models for quality teaching-learning in classrooms was minimal despite funds being made available for research (Rajan, 2012). The NCTE's mode of approach towards regulation was seriously questioned at a stage when they permitted disproportionately large number of self-financing institutes to offer teacher education and ultimately were unable to monitor and regulate the sudden spurt of teacher education institutions across the country. In this regard, The Report of the Justice Verma Commission strongly stated, 'This expansion of a system per se may not be objectionable it becomes problematic when the major part of this expansion is of poor quality institutions' (p. 43), and thereby implying the need for vigorous policy for inspection and monitoring institutions.

Regardless of the above drawbacks and lacunae in the teacher education system, it is encouraging to see that several committed teachers have emerged from the very same system. Many have tried to perform their best in order to teach effectively and contribute toward school education. Despite the various constraints, many schools even today are fortunate to have dedicated teachers who take special pains and efforts to teach their best under any given circumstances as given below.

Teacher Success Stories

Government schools run by the local governance are often believed to offer poor quality of education. But there are teachers—regardless of the inadequacies and impediments prevailing in these educational systems—who have succeeded to remove this misconception. Teachers have taken initiatives to convince parents to bring back their children from private schools and have them re-enrolled to government schools (Achanta, 2011; Shetty, 2017; TNN, 2013). Achanta and Shetty reported how a proactive and progressive headmaster along with his committed staff managed to upgrade school facilities by mobilizing the community and the Government itself. Reports of a teacher, Abdul Malik, who made a difference and broke social barriers to commit toward teaching, even while facing personal hardships was widely shared through different

media (Giridhar, 2018; The Logical Indian, 2015). The same Abdul Malik who taught mathematics at a Muslim Lower Primary School in Malappuram, Kerala, swam from his home to the school and back for over 20 years in order to avoid the 24-km long journey by road.

The British Council (2017) also showed that there are a lot of enthusiastic teachers who are trying hard to make a difference in their classrooms across India. The Council noticed the existence of innovative activities taking place in classrooms, by teachers with the use of different forms of technology. A teacher as said in the report, 'my students almost never travel beyond their community and I wanted them to explore different places around the world in virtual reality' (p. 12). In another school setting dominated by religious minority group of students, an elementary school teacher explored the capacity of storytelling as a pedagogic tool for teaching algebra. According to the teacher, stories are a great resource to attract and sustain the attention of learners, and facilitated students to work toward achieving one single goal. As voiced by the same teacher, 'Students reasoned, solved problems, communicated and collaborated for the sake of the story characters'. She also said,

> In a story situation where students act as facilitators in someone's life they feel powerful. They feel their actions have a reason, a purpose and that is why their agency is so strong. They feel like they are driving the outcomes of the story and that is why they want to take everything 'hands-on.' (Singh, 2017, p. 86)

Small-scale interventions were undertaken by individuals to improve the capacities of teachers and schools. The State Council of Education Research and Training (SCERT), New Delhi, evolved a school improvement program in which private schools were twinned with neighboring government schools with a determination to improve the quality of both kinds of schools. The library, laboratories and teachers were made available to Government schools and the Government school in turn welcomed the private schools to participate in their science fairs, cultural mathematics and quiz programs. This intervention led to an improvement of the school results by 24% (Rajan, 2012). *Kalari* was another intervention that was primarily an enquiry-based capacity building program that enabled teachers to recognize and find solutions to the problems they faced day-to-day in schools. This program was developed through vigorous exercise that involved hectic consultations,

collaborative workshops, to ensure that it emerged from a democratic and decentralized process (Balakrishnan & Unnikrishnan, 2012).

There might be possibilities of more such instances where teachers have struggled to do their best to contribute toward school education and for the marginalized section. Unfortunately, many worthwhile lessons that can be drawn from such experiments and success stories that depict the effective capabilities of teachers have not been highlighted or may have even been forgotten because of a complete lack of a mechanism to document and publish for wide advocacy and reading (Gupta, 2012). Such stories need to be shared with the rest of the teaching community, including teacher education institutions, as worthwhile lessons can be drawn from such experiments and can uplift the motivation and commitment of the rest of the teachers.

The capability of a teacher to teach effectively in schools dominated by the students from disadvantaged communities or even classrooms weaved by learners with distinct life-worlds, may denote that these skills to teach in such situation were either equipped during the teacher preparation program or were inherently present. It is significant for teacher education institutions to understand how teachers in such dismal conditions, use their knowledge and learning experiences associated to a specific community or culture to construct their approach towards teaching and self-motivation in the classroom. Assuming that a large extent of teacher performance depends on the teacher preparation process, the following recommendations have been suggested to improve the approach and process of teacher education program in the country.

Recommendations

Despite the current reforms and interventions taking place in teacher education institutions, a lot more needs to be done to improve the quality of teachers and teacher education in India.

Restricting Nonacademic Roles

Foremost, the mandate of Right to Education Act of not deploying the teachers for any noneducational purpose should be seriously implemented to permit teachers to fully channelize their efforts toward academic and teaching-learning processes. Indian classrooms being complex, enabling teachers to balance their work while facing daily challenges

like; inadequate teachers, large-sized classrooms, minimum learning resources and less support from the community, directs the need to relook and depart from traditional methods and suggest contemporary and integrated models of teaching like peer teaching, technology integrated and multigrade teaching for Indian classrooms.

Approaching Classroom Diversities

As earlier mentioned, when classroom diversities are further widening, more efforts to position teacher education toward sensitizing teachers on the historical underpinnings and ground realities of the marginalized and deprived communities are essential. Teacher preparation models that help teachers to develop inclusive spaces in their classrooms in order to eliminate prevalent social biases and develop favorable orientations toward the diverse communities should be adopted. For this purpose, internship should provide opportunities to the prospective teachers to practice teaching in a variety of schools like the private, government, rural or even tribal contexts. Moreover, rather than evaluating these teachers' lessons always based on uniform and rigid format, written narratives in the form of reflections and case studies can be also obtained to assess their understanding of students culture, linguistic styles and forms along with social inclinations. Every teacher education framework must insist on the practice of *reflective teaching* to help teachers to eliminate both deliberate and unconscious bias through self-examination. Even Paulo Freire's model of critical pedagogy can be put into practice as it promotes critical, reflective and creative thinking among its learners. Moreover every course taught should have a practical component wherein the course content insists on completion of activities that have application to a school or community at large. Many such activities are mentioned in the NCFTE framework but are not explicitly visible in curricula of the teacher education.

Establishing Inter-Institutional Linkages

The complete landscape of the teacher education system seemed to be manifold, complex and fragmented as the teacher education institutions have largely been operating as 'isolated units', with negligible synergy and coordination with the State apparatus (DIETs, CTEs, IASEs, university departments) and even the school. Their functioning in 'closed

spaces' has prevented these institutions to visualize and develop a pragmatic framework for teacher education at different levels. Teacher education institutions rather than being 'stand alone institutions' should establish convergence between school education and build linkages with the higher education system. For this purpose, the idea of '*school complexes*' propagated by Kothari Commission and Naik (2008) is highly recommended. Under the school complex program, a primary school works in close collaboration with a secondary school for guidance, sharing of facilities and the same process could be adopted at a higher level between teacher education colleges and universities. Inter-organizational linkages and platforms promote consultations and meaningful interactions to analyze prevailing programs, its curriculum, transactional processes, entry credentials, quality indicators and reflect on different aspects of teacher education. Teacher education institutions must compulsorily invite schoolteachers as field experts to their program to bring in live experiences and to facilitate interaction with the prospective teachers.

Capacity Building of Teacher Educators

Failures in achieving the desired outcomes in the school education may also reflect the need to improve the quality of teacher education, particularly improving the competence of teacher educators. An absence of a policy framework for the capacity building of teacher educators expresses a need for in-service and continuing professional development of teacher educators both at the elementary and secondary level. Various reforms and policies have evolved for in-service education of schoolteachers, while no such considerations have been initiated for the teacher educators. More investments in designing standards and norms for in-service teacher education program of teacher educators should be done with the support of collaborative and inter-institutional platforms. Special attention should also be laid on follow-ups and evaluation methods to assess their outcomes by specifying the competency areas attempted and developed. This approach may also be adopted for in-service education of schoolteachers and DIET faculty.

Visioning Teacher Education

The rapid rate at which the private institutions were sanctioned the responsibility of providing pre-service teacher education, reflected the

system priorities and as well manifested their mandate for 'training' rather than 'educating' teachers. The approach of these institutions toward teacher preparation was more about completing a set of rituals and other mundane requirements, largely number-driven, rather than looking at 'teacher' image from a larger perspective of being a social agent, who is supposed to be humane, socially sensitive, conscious to inequalities and who also shows an attitude of tolerance toward educationally backward communities. Some thought must be laid on how to decolonize the prevailing model of teacher education by shifting the fundamental underpinnings of the program from a product-based to a process-based framework of teacher preparation. The framework also needs to revolutionize and broaden its vision of teacher education by genuinely reconsidering J. P. Naik's (2008) view and Justice Verma Commission's Report on locating teacher education institutions in multi and interdisciplinary academic environment by bringing in a great deal of interdisciplinary thinking and inviting interdisciplinary personnel to contribute toward educating teachers and educationists. This approach has been in practice at the Regional Institutes of Education, affiliated to NCERT, Indian Institute of Education, Pune and Zakir Hussain Centre for Educational Studies, affiliated to Jawaharlal Nehru University, New Delhi, wherein interdisciplinary faculty are involved in teaching and research programs. J. P. Naik even had a firm belief that teachers should assume leadership in the area of 'educational planning and development', as this would benefit both the education system and as well as enhance their own professional status, and hence should find place in the curricula of all teacher education.

Pedagogical Documentation

Teacher success stories are claimed as an essential learning resource for any transformative teaching education program. They can provide innovative options for dealing with local issues and also as per the needs and expectations of teachers in different contexts. Such stories demonstrate how teachers have won over the challenges and how these changes have benefited their students and how they serve as tools for learning, replication, motivation, adaptation and advocacy. Documentation of good and best practices becomes important requirements in teacher education because they can also have an impact on policy environment. While, the Ministry of Human Resource and Development (MHRD) recognizes

teachers who have adopted critical pedagogy and innovative approaches to facilitate holistic development among the learners (Sengupta & Tyagi, 2016), the practices of these teachers should be widely advocated to the public for further learning and inspiration. Publications in the form of journals, newsletters and research papers need to be circulated among these institutions for reading and widening knowledge.

Strengthening the Regulatory Framework

The NCTE as a statutory body, need to regulate and control the pro-liferation of substandard institutions by having a definite regulatory framework that is enforced periodically and demonstrates visible qual-ity norms. The framework should explicitly define the quality indicators classified under selected domains to facilitate the quality improvement of the teacher education institutions. Rather than relying on numbers, selected indicators may also enable descriptive analysis of the instruc-tional processes adopted by these institutions. In this regard, feedback from prospective teachers, alumni members could also be integrated in the regulatory framework. Regulation of private teacher education insti-tutions stands essential since they represent in majority today.

Conclusion

The reality of Indian classrooms is quite unique and if India wants to cre-ate a new generation of learners that are willing to participate and sup-port in the development of a humane and progressive society, more focus needs to be laid on nurturing teachers who are facilitators, reflective in approach and sensitive toward their social realities. Professional compe-tence is a fundamental requirement to any teacher who intends to bring about an effective change in the educational system. The competence of such teachers is not confined only to teaching a subject effectively but also demands their commitment to quality learning, a willingness to innovate, and most importantly to believe in the values of equality, social justice, and dignity. Educational thoughts and insights of various thinkers like Paulo Freire and J. P. Naik on teacher education may also stand relevant to teacher education in India even today. The report of the 1964–1966 National Education Commission although stated, '*The destiny of India is now being shaped in her classroom*', it is believed that this 'destiny' is being shaped even in the classrooms of the teacher education institutions, by

striving to cultivate a teacher who is basically a humanist, who is rational, having a scientific temper and a secular outlook toward society.

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Continuous Professional Development (CPD) and Teacher Change in India and South Asian Nations: An Analysis of Literature and Policy Documents

G. V. Subitha

Introduction

In line with the trend observed in developing countries over the past 25 years which show large increases in school enrolment (Glewee & Muralidharan, 2015), India—as a developing country—has made great strides with access and enrolment of children reaching near-universal levels at primary levels (12th Five Year Plan, 2012–2017). Yet, as Alcott and Rose (2017) and Glewee and Muralidharan (2015) have stated that among developing countries increased enrolment and attending schools does not guarantee increased learning outcomes. The learning levels of children in Indian schools are on a decline. The same can be said about other South Asian countries, like Bangladesh, where analysis of the National Student Assessment-2011 has revealed that although the

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country has succeeded in providing greater educational access to its children, learning is low and remains unequal (Bangladesh Education Sector Review, 2013). In the case of Nepal, the report of Joint Evaluation of Nepal's School Sector Reform Plan Programme (2009–2016) reveals that the quality of educational outcomes among children in Nepal is low. In South Asian countries, among the many factors that contribute to the low quality of education, '*substandard teaching*' is cited as the foremost factor (Dundar, Beteille, Riboud, & Deolalikar, 2014, p. 197). Research studies have shown that the single most variable affecting student achievement is teacher quality (OECD, 2005). In South Asian nations, therefore, where schools serve hundreds of millions of low income students, the importance of teacher support through professional development programmes cannot be overstated. Teachers need help in developing professional skills for teaching challenging curricula to diverse students (Timperley, Wilson, Barrar, & Fung, 2007). International research has confirmed that teacher professional development (TPD) is crucially important to teacher change (Clarke & Holingsworth, 2002; Doyle, 1990; Guskey, 1985; Johnson, 1996a); changes in teachers beliefs and behavior, which leads to changes in classroom practice (Wood & Bennet, 2000; Young, 2001); and further to improve student learning outcomes (Borko & Putnam, 1995; Fishman, Marx, Best, & Tal, 2003; Vogt & Rogalla, 2009). This implies that in the case of South Asian countries like India, Bangladesh, and Nepal, teachers need to be supported in their mission through quality professional development programmes so that reforms can be actualized in the area of school education and learning outcomes among its diverse student population will improve.

Yet, an analysis of literature on the quality of professional development programmes provided to teachers in India confirms that the quality is far from satisfactory. Batra (2005), in her analysis of teachers' agency and professional development concludes that an attitude of resignation toward initial teacher education and piecemeal in-service training courses have become an integral part of state provisioning for elementary education which has led to further degradation of the status of school teachers and diluted the identity of teachers as a professional. 'School teachers continue to be isolated from centers of higher learning and their professional development needs remain unaddressed' (National Curriculum Framework for Teacher Education, 2009, p. 6). Although the National Curriculum Framework (2005) has been instrumental in changing the

discourse on education system-wide, and teachers are now open to the fact that their teaching approach needs to undergo fundamental change, yet there is lack of clarity what this change quantifies in terms of classroom teaching and learning (Kumar, Dewan, & Subramaniam, 2012). There is a gap between policy statements and actual practice on the ground and schools and teachers look for help as they try to interpret the message of the new curriculum framework (Kumar et al., 2012). Bolitho and Padwad (2013) argue that Continuous Professional development (CPD) of teachers in India is equated with in-service training programmes, are normally one-off, isolated, short term, and infrequent. Kumar et al. (2012), emphasize that in-service training programmes view teachers as mere agents of change and implementers of reform and curricular directives and do not directly address teachers own conceptions of teaching and learning gained from their own experience as well as their beliefs and attitudes which, as Reimers (2003) underlines, is very important because teachers' beliefs impact practice, the relationship being dialectic—moving back and forth between change in belief and change in classroom practice (Frankes, Valli, & Cooper, 1998; Wood & Bennet, 2000). On the same lines, Sriprakash (2011) concluded how 'being a teacher' in India is constituted by multiple social, institutional and reform expectations without consideration of the ways in which teachers are differently positioned in their work and lives, positions that are sometimes at odds with reform ideals.

This kind of situation in the Indian context can be explained by what (Field, 2002, p. 201) indicates as disparity between 'policy rhetoric and policy achievement' or 'conception and delivery' in the area of lifelong learning policies. Researchers including Guskey (1986), Howey and Joyce (1978), and Wood and Thompson (1980) have highlighted the ineffectiveness of professional development programmes that over-emphasized a deficit approach, while others like Fullan and Stiegelbauer (1991), Johnson (1989), and Lovitt and Clarke (1988) have provided convincing evidence of failure of 'one shot' professional development approaches. If teachers are to be supported to bring about reforms in education, then CPD programmes needs to address real issues that they are facing in their classroom teaching and learning. The shift in focus and conception of teacher change is very clear—from change as an event with teachers as passive participants to change as a complex process involving learning (Fullan & Stiegelbauer, 1991; Guskey, 1986; Hall & Loucks, 1977; Johnson, 1989, 1993, 1996a, 1996b; Teacher Professional

Growth Consortium, 1994), from teachers being passive recipients of knowledge to active learners shaping their professional growth; and from a linear process of teacher change (Guskey, 1986) to interconnected models (Clarke & Holingsworth, 2002; Teacher Professional Growth Consortium, 1994).

As analysis of the perspective shifts in models of CPD that have evolved internationally with those currently in practice in India, reveals that CPD models in India needs to be reframed and re-conceptualized especially at this crucial juncture when India is working to achieve universal primary education in terms of enrollment and completion of primary schooling for all girls and boys as part of Sustainable Development Goals by 2030. This chapter presents a review of literature on CPD of teachers in India. The purpose of this chapter is threefold. First, the chapter with the help of national policy documents and position papers explains India's vision for CPD of teachers. The chapter analyzes the reason why in spite of well defined policies in the area of teacher education, the country fails at improving the quality of teachers- why is there a disparity between policy rhetoric and policy achievement in CPD practices? Second, the chapter applies the framework developed by House and McQuillan (1998, 2005) to study the factors within the Indian education system that challenge and influence school reforms. The chapter further attempts to develop a comparative understanding on how these factors influence school change in other South Asian countries as well like Bangladesh, Sri Lanka, Nepal, and Pakistan. Third, the chapter provides recommendations on improving CPD practices in India by quoting successful practices and examples of innovations in India and in other South Asian Nations.

Positions Taken by Policy Documents on Teacher Development in India

The Kothari Commission (1964–1966) recognized the importance of teachers in improving the quality of education and suggested that high-quality recruits should be secured for teaching jobs, and that they should be provided the 'best possible professional preparation'(GOI, 1966, Ch. 3, Sec. 3.01). The National Curriculum Framework for Teacher Education (NCFTE) acknowledge that teacher quality is a function of several factors viz., teacher status, remuneration, condition

of work and their academic, and professional education. The framework states that the teacher education system through its initial and continuing professional development programmes should ensure an adequate supply of professional competent teachers to run the schools. The NCFTE (2009, p. 3) outlined areas of professional development for teachers as mandated in the Right of Children to Free and Compulsory Education Act-2009, namely all-round development of the child, conformity with constitutional values, activity-based learning, teaching in the mother tongue of the child, making the child free from fear and trauma, and comprehensive and continuous evaluation of child. The document envisions teachers as creators of knowledge and as thinking professionals who should be empowered to connect learning in children to their immediate environment and further create opportunities for them to discover, develop, and learn. Saigal (2012, p. 1010) quotes the National Curriculum Framework (2005) and NCFTE (2009), that has described teachers as active, reflective learners who are expected to critically engage with the curriculum, syllabus and textbook and develop skills in facilitating learner-centered classroom interactions.

An examination of these phrases written in the national policy documents and quoted by researchers demonstrates that the policies do have a vision for the growth and development of teachers. The chapter attempts to measure these phrases against research studies such as Kale (1970) and Sriprakash (2011) that has critically analyzed CPD programmes in India and in the process attempt to delineate reasons for the anomaly in 'policy rhetoric' and 'policy achievement'.

REASONS FOR ANOMALY IN POLICY RHETORIC AND POLICY ACHIEVEMENT

Kale (1970) highlights the fact that Indian education policies do not transfer into practice because the policies neglect the situations and contexts around the teachers' working environment. According to Kale (1970), policy documents project a symbol of teachers as nation builders, who are qualified, motivated and devoted to the profession, hold high prestige, status and income and have full freedom to do what they think best in educational matters. But the objective reality of teachers is that of a mediocre person, who for want of another career have become teachers, is suppressed by a bureaucratic social structure that has

deprived them of autonomy and freedom and belong to a profession that does not offer the security, income, insurance, and pension that he/she needs. Sriprakash (2011) highlights that reforms and policy imperatives see teachers as essential to the functioning and continuity of educational reforms, positions teachers as agents of social change and as implementers of programme directives but fail to consider the competing interests in their social world. Teachers therefore resort to 'recontextualisation' (Bernstein, 2000), where educational ideas rendered by the policies are differently re-worked, re-interpreted and re-enacted in accordance to their local contexts.

CONCEPTUAL FRAMEWORK

Notwithstanding the arguments provided by the Kale (1970) and Sriprakash (2011) as reasons for failure of reform imperatives, the chapter attempts to analyze the reasons for the anomaly in policy and practice from a broader perspective. The framework developed by House and McQuillan (1998, 2005) is applied for this purpose. The framework explains that an adequate understanding of school reforms requires three perspectives: technological, political, and cultural. The framework elucidates that to understand a complex phenomenon like school reforms one should study it in the 'real world complexity' (House & McQuillan, 2005). According to the approach, the real world (society) is organized in three major ways: (1) by the market (economic activity explained by the technological perspective), (2) by the government (political activity explained by political perspective), and (3) by civil society (cultural activity explained by cultural perspective).

For reforms to be successful and for institutions to change, simultaneous interplay of all three factors has to be studied. Reforms that exclusively operate on one factor leaving the others would encounter serious problems at the implementation stage. Applying this to the Indian situation, the chapter assumes that reforms in the Indian context are not successful because policy-makers are not studying reforms in the real-world complexity and therefore are unable to interpret and analyze the simultaneous interplay of the three factors (namely, the technological, political and cultural) that can drive or impede school reforms. The chapter applies this approach to delineate concerns within these three perspectives that are impeding reforms in the area of teachers' CPD in the Indian context. At the same time the chapter also attempts a

comparison with other South Asian countries viz., Bangladesh, Nepal, Sri Lanka, and Pakistan to explain how the same concerns that influence reforms in India impact reforms in these countries as well. Carless and Harfitt (2013) applied this framework to analyze curriculum reforms in Hongkong and identified 'centralized bureaucratic forces' as one of the concerns that impede reforms under the technological perspective, 'power' under the political perspective and 'community values' under the cultural perspective. The chapter proceeds to investigate the Indian situation under the same concerns identified by Carless and Harfitt (2013) as influencing reforms, namely 'centralized bureaucratic forces' under the technological perspective, 'power' under the political perspective and 'community values' under the cultural perspective. Figure 4.1 illustrates the framework developed by House and McQuillan (2005) and also depicts the concerns identified by Carless and Harfitt (2013) under each of the three perspectives.

## TECHNOLOGICAL PERSPECTIVE-BY THE MARKET

In spite of well-written policy statements in India, why do reforms fail during implementation? Why is there an anomaly in input and outcomes? One needs to apply the concern viz., 'centralized/bureaucratic forces'
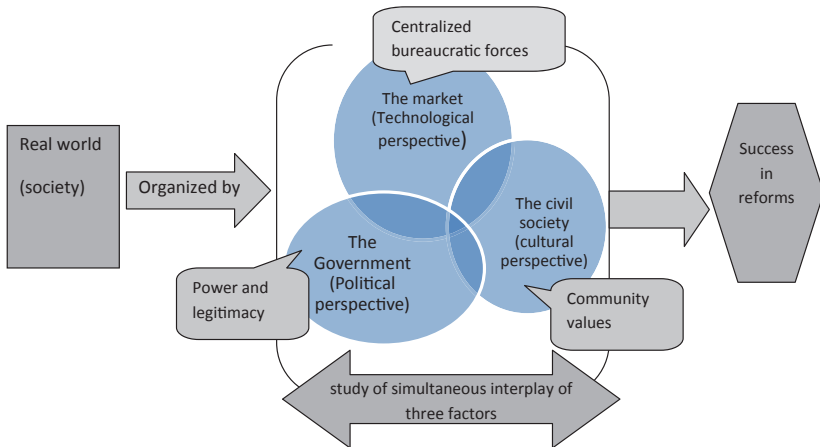
Fig. 4.1 Illustration of framework developed by House and McQuillan and concerns under the three perspectives

to answer these questions. Applying these to the Indian context, the Indian education system follows a centralized, top-down system of decision-making on what the teachers should learn during in-service training programmes (Saigal, 2012). Modules are pre-determined and 'training' is 'delivered' (Saigal, 2012, p. 1016) to the practitioners without due consideration of their actual requirements. Teachers are not part of the policy-making process (Sriprakash, 2011) and as emphasized by Vasavi (2015, p. 42), lie at the bottom of the administrative pyramid and is often the key target of administrative reforms and teacher training programmes. Figure 4.2 illustrates the position of the teacher within a centralized administrative system in India.

The professional development programmes follow a cascade model of knowledge dissemination (Saigal, 2012, p. 1010; National Council of Educational Research and Training [NCERT], 2016, pp. 13 and 56) that support hierarchy and curtail agency of the teachers. The model considers teachers as benign individuals whose role is to implement the policy directives of the National and State Education Departments. For example, Hughes (2003) in her study on dissemination models concluded that cascade models belongs to the positivist framework of philosophical theory, 'which assumes a benign view of the social agent' (p. 25)
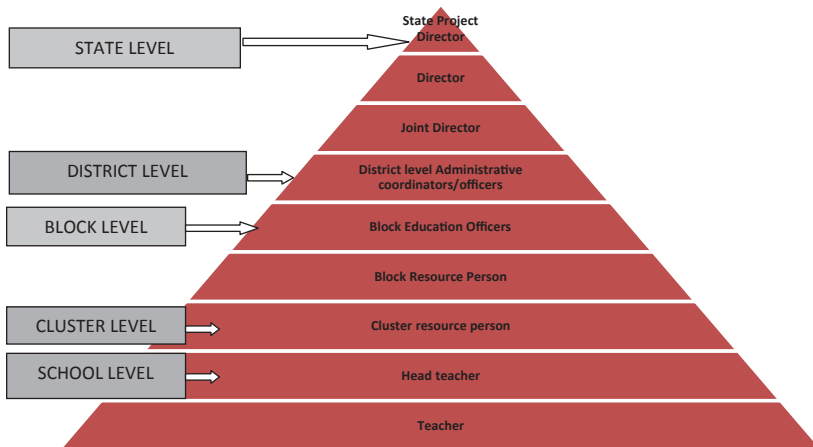
Fig. 4.2 Position of teacher within the centralized administrative system in India

and reinforces a technicist view of teaching where skills and knowledge are given priority over attitudes and values (Kennedy, 2005) and believes knowledge as the most important part of the process rather than the context in which it is gained or used. The cascade model of knowledge dissemination therefore has partial success in engaging with teachers' local needs and fostering sustained change in teacher practices (Clarke, 2003; Dyer et al., 2004; Mukhopadhyay, 2009). Figure 4.3 illustrates the cascade model of knowledge dissemination.

Literature on training programmes for teachers in other South Asian countries reveal similar issues. The Asian Development Bank (2017, p. 167), reports that professional development programmes in Sri Lanka also follows the cascade model and teachers have expressed dissatisfaction with following a model where knowledge tends to get weakened or distorted in transmission and diluted down the line. In Nepal, according to the Report of Joint Evaluation of Nepal's School Sector Reform Plan Programme (2009–2016, p. 44), School Sector Reform Plan (SSRP) implements a cascade model for teacher development which has not brought about an improvement in quality of education as teachers
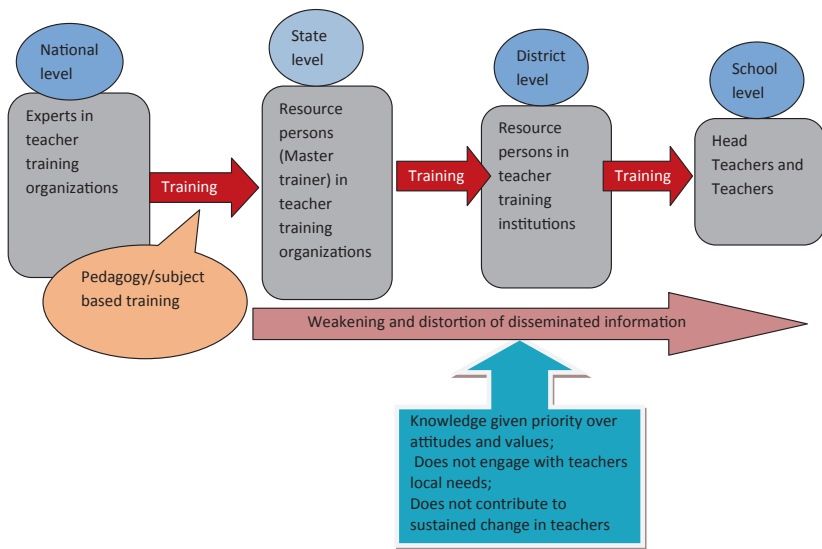

Fig. 4.3 Cascade model of knowledge dissemination

have been unable to apply the newly learnt content in the classrooms. The report quotes that the reasons for the failure included the fact that the training modules were supply-driven instead of need-based and that the teacher trainers from the roster were not equipped with necessary pedagogical skills to deliver the training when compared to the master trainers at the Centre. The report further argued that teacher training alone cannot improve quality of teaching unless accompanied by change in ethos, attitude, and motivation, which the cascade model of training was not equipped to deliver.

POLITICAL PERSPECTIVE-BY THE GOVERNMENT

According to House and McQuillan (1998), the political perspective analyzes innovation as a process of conflicts, negotiation, and compromise between groups and factions. Essential to such an orientation are concerns such as power and legitimacy. Vasavi (2015) explains that Government school teachers in India work within a culture of thin democracy and a contradictory bureaucratic apparatus. They do not have an agency of their own and have been relegated into a pliable entity whose role is to merely implement policy reforms as mandated by the bureaucratic education system. Therefore, teachers, as they locate themselves within the interstices of a hierarchical education department marked by its inability to deal with teacher issues and uphold norms of performance and delivery, compromise on their academic performance, justifying that the system disregards good work of teachers, offers no incentive for better performance and treats 'grain and chaff alike' (NIAS, 2007). Thus, this kind of constant conflict and negotiation between the education department and teachers defines the power/status of the teachers within the system and further marks the legitimacy of teaching as a profession. Issues of low status accorded to teachers, lack of incentives for good work and lack of career progression has impacted in other South Asian countries as well according to policy reports. For example, the report of the Joint Evaluation of Nepal's School Sector Reform Plan Programme (2009–2016, p. 44) has emphasized that teacher training has to be accompanied by ongoing support, encouragement, and most importantly improvement in the image and status of the teaching profession in the society for impacting change. The report advocates that appreciative and economic incentives need to be provided to teachers while clarifying that low social value of the teacher profession can lead

to has led to high absenteeism, low performance, and strong political interference in the country. The same concern is voiced by Bangladesh Education Sector Review (2013), which explains that the system currently does not attract and retain the best professionals, reasons being lack of accountability, lack of incentives, and limited career progression that has affected teacher morale and motivation. According to Dundar et al. (2014), most teacher pay schemes in South Asia are characterized by some combination of guaranteed appointment after training, lifetime tenure, automatic annual salary increases, absence of performance related rewards, pay that is not received regularly, and salaries unrelated to the working conditions. These factors stymie the potential of talented teachers and de-motivate them with a resultant negative effect on student learning. Examining the position of the country's reforms under the political perspective, India and other South Asian nations need to ensure that reforms in teaching learning process unless accompanied by improvement in status and image of teachers does not guarantee success.

Cultural Perspective-by Civil Society

The cultural perspective speaks about meanings and community values, and reveals an ecological perspective. It studies innovation within the specific culture and sub-cultures of the educational setting in which reform is being implemented. India is a diverse country which implies that teachers have to deal with social diversity as well as contextual diversity during teaching learning process. Teacher behavior and performance therefore need to be analyzed by situating them within the larger socio-cultural and organizational framework of the school. Teaching is a culturally constructed activity and in order for teaching to be more empowering it needs to be more culturally authentic (Gopinath, 2006, p. 270). The professional development programmes need to perceive the school as embedded within a social cultural milieu and designed in such a way that the structural and cultural issues are located and engaged with (Vasavi, 2015). Stating similar concerns in the context of certain South Asian countries, Reid and Kleinhenz (2015) in their study on supporting Teacher development in developing countries which includes India, Pakistan, Sri Lanka, and Nepal, concludes that teacher development that occurs independently of the school context and without ongoing support for implementation may be challenged by the realities of the classroom environment and lack of understanding among teaching colleagues

and the school leadership. The document affirms this statement quoting a study by Mohammad and Harlech-Jones (2008) and Mohammad (2004), in Pakistan, who found that teachers who had undertaken an in-service training course at a university (focused on mathematics) did not immediately implement the practices they had learned due to challenges that were evident both in teachers learning new skills and changing their teaching practices in the school context. The challenges toward change included the fact that teachers were pressured by a school culture that valued traditional approaches to teaching and were concerned they may be negatively evaluated if they deviated from accepted routines (Mohammad, 2004).

Arguing for locating teacher development sites within schools in developing countries like India, Nepal, and underlining the disadvantages of setting up teacher resource centers that are off-site, and inaccessible Knamiller (1999), emphasizes that in-service courses that lack relevance to the day-to-day work of teachers in schools make it less likely that training will be reflected in improved classroom practices unless the courses take into consideration the knowledge and skills of participating teachers, the characteristics of their teaching environments, and the expectations of the school curriculum.

The above paragraphs describes the interplay of forces namely 'centralized bureaucratic forces, 'power' and 'cultural-community values', operating within the technological perspective, political perspective, and cultural perspective, respectively. The paragraphs emphasizes that these concerns if neglected/not controlled can result in failure of school reforms leading to disparity in policy rhetoric and achievement. The chapter while taking these forces/concerns into consideration, provides suggestions for improvements of CPD of teachers in India and other South Asian countries.

Suggestions and Recommendations

a. In-service training: Move from system-based approach to school-based approach

In-service training in India and South Asian countries as explained in the chapter is still managed and delivered by the central ministry through cascade model using state and district level training sites. As already

mentioned cascade training model reinforces a technicist view of teaching, involves centralized decision-making on the content that should be imparted during the training and is therefore cut off from the original working context of the school teachers. Teachers are therefore unable to relate to these training programmes and therefore in-service training through cascade model have been unsuccessful in building the local capacity of teachers. The Asian Development Bank (2017, p. 5) on innovations in TPD in South Asia advocates that teacher training programmes for teachers needs to be decentralized and local institutions and expertise should be used to implement innovations so as to build local capacity and provide ongoing training related support. UNESCO (1990) quotes Beeson (1987) to emphasize that School-focused in-service education is potentially a powerful method for improving the quality of teaching. Innovative methods of training using school-based approach have been implemented in India and other South Asian countries. For example, Saigal (2012) studied an innovative method of teacher support for teachers of Rajasthan's government schools in India through the 'Quality Education Program'. The innovation drew its idea from the Collaborative Apprenticeship Model developed by Glazer and Hannifin (2006). In this model, Educational Resource Intermediaries (ERI) worked closely with primary school teachers using two support strategies viz., 'professional dialogic interactions' and modeling of pedagogic strategies through which they were able to respond to the teachers' local knowledge, identify their learning needs, locate issues and challenges to teaching within the school context and thereby provide assistance to them in situ. Such models in the area of TPD would help to position the teachers as active learners, help them engage with the learning needs of children and enable a process approach to teacher learning that is situational and sensitive to the schools' socio-cultural settings. On similar lines, Chang (2014) explains cluster-based mentoring in Pakistan as an effective strategy for the professional development of teachers. Chang (2014) quotes the work of Hussain and Ali (1998) that studied the impact of a cluster-based mentoring programme for in-service teachers in districts of Baluchistan province, in which a mentor teacher (or professional development teacher), stationed at a learning resource center (LRC), worked with 25 teachers within a school cluster and organized professional development activities such as workshops, development of learning resources and instructional materials, observation of mentee-teachers' classes, and post-observation of one-to-one reflective

sessions. The study concluded that this strategy effectively changed in-service teachers' practices from traditional lecturing and rote-learning to a more progressive activity-based teaching.

b. Improving the social status by providing incentives and career growth: linking salary to performance assessment

Literature referred to in the chapter reveals that teachers in India compromise on the quality of their performance citing reasons as 'no incentive for good work', and 'system unable to uphold norms of performance and delivery' etc. Literature from South Asian countries like Bangladesh, Nepal etc. also proves that teachers are de-motivated because the system offers no incentive for good work and that the profession is marked by low status, poor salary, and lacks career progression. The Asian Development Bank (2017) emphasizes on using a logical and performance-based incentive mechanism to replace the blanket approach to salary scale. The report advocates that in order to make teachers perform inside the classroom, the incentive mechanism should be arranged in line with their performance, subjects they teach (demand and supply of teachers: higher-demand subjects (i.e., secondary teachers for English, mathematics, and science), the base salary could be slightly higher. The teacher salary should also have some differentials based on geographic location. Dundar et al. (2014) clarifies that in South Asia, teachers seem on average to be well paid relative to non teachers with similar credentials. Yet evidence from the region, although limited, suggests that a career progression structure and Performance Related Pay (PRP) could engender more accountability, elicit greater teacher effort and incentivize use of better inputs and training.

c. Formulate a policy for teacher education and teacher professional development

The Asian Development Bank (2017, p. 83), citing the case of Bangladesh, has highlighted the need for a clear policy framework for teacher development. The policy envisioned should involve aspects of pre-service and in-service teacher training, implementation strategies and target outcomes with a clear direction for monitoring and evaluation mechanisms. The policy should also include a fair compensation package, social status, and options for career and professional development.

Applying this statement to the Indian situation, institutions like National Council of Education Research and Training and National Council for Teacher education (NCTE) should evolve policy guidelines on national teaching standards and indicators, implementation strategies, pre-service teacher education, in-service teacher training, monitoring and evaluation system for teacher performance, career path of teachers, and recruitment and deployment of teachers, so as to bring about quality output among teachers.

d. Career progression for teachers to improve teacher motivation and status

The Organisation for Economic Cooperation and Development (OECD, 2013), quotes the case of Singapore which has designed a carrier progression for teachers with different aspirations by promoting three tracks: Teaching, Leadership and Senior Specialist. The Teaching Track allows teachers to advance to the new role of Master teacher. The Leadership track provides opportunities to take on leadership positions in schools and Ministry of Education, while the Senior Specialist track allows the teachers to join ministry headquarters and become specialists with deep knowledge and skills in specific areas in education. Pritchett and Pandey (2006) proposed a professional career path for new teachers in government schools in India. According to the proposal teachers will start out as Shiksha Karmi (Phase-1) who will be hired locally to a school on a fixed-term contract the renewal of which will depend on performance. After the probationary period, the Shiksha Karmis can apply to become 'Adhyapak' teacher (Phase-2) with higher salaries and benefits. In phase-3, outstanding 'Adhyapaks' can be promoted to 'Maha Adhyapak' which would carry a jump in salary, more perks, and more prestige. Career progression for teachers envisioned on these lines would be helpful to motivate teachers to innovate in classrooms, develop ownership and increase performance while improving their status and image in the society.

Conclusion

Traditional models of TPD in India have led to a stark gap in policy rhetoric and implementation. The chapter suggests that simultaneous interplay of factors that influence reforms viz., centralized bureaucratic system, teacher power and status, and situatedness of teaching–learning

process within the schools socio-cultural contexts needs to be considered while proposing reforms in the area of TPD. The chapter also analyzes how these aforementioned factors influence reforms in other South Asian countries as well viz., Bangladesh, Sri Lanka, Pakistan and Nepal. The chapter concludes that teacher training programmes in India and South Asian countries needs to be designed using the expertise of local institutions and according to the working context of the teachers. The content of the training programmes should address teacher ethos, attitudes, and beliefs rather than imparting mere content knowledge and skills. The chapter recommends school-based teacher training programmes as an alternative to centralized system based training, career progression opportunities, incentives for good work, and a clear policy framework for teacher education at the pre-service and in-service level so as to improve teacher performance leading to educational reforms and improved student learning.

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Empirical Research
on Teaching in South Asia

"What Can We Do If They Are Not Getting?": Perspectives of Teachers on Inclusive Education in a Low-Fee Paying Private English-Medium School

Maya Kalyanpur

Since the 1990s, low-fee paying (LFP) private schools for poor students have proliferated in post-colonial Asia and Africa (Brion, 2017; Heyneman & Stern, 2014; Kwan, 2012). Scholars suggest that private sector investment in education is fortuitous, particularly for poor students, because it allows students access to a quality education they might not otherwise have had (e.g., Tooley, 2009), and breaks away from the long-held elitism of education, particularly in English, in India. Others express concern that LFP English-medium schools do not necessarily offer quality education, merely offering a socially desirable asset—the ability to speak English—that parents want for their children (Sarangapani & Winch, 2010). Certainly providing a more inclusive education, which benefits all society, is a highly desirable outcome. The question is whether any education, regardless of quality, is a justifiable

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good. Do students at LFP private English-medium schools receive a quality education just because they are learning in English? There is, after all, a subtle but significant difference between learning in English and learning English, and one does not guarantee the other (Kumar, 2017; Mohan, 2017).

Further, social hierarchies permeate almost every aspect of Indian life, including schools, perpetuated by attitudes toward a multitude of variables, such as socioeconomic status (SES), caste, gender, and religious difference (Jhingran, 2017; Sharma, 2019; Velaskar, 2015). To cater to low SES students, many LFP schools are located in poorer neighborhoods, particularly in urban areas, that are often disproportionately represented by people from lower castes, often determined by occupation, and from religious minorities, such as Muslims. However, researchers have found that many teachers hold negative perceptions of low SES students (Bansal, 2018; Jhingran, 2017; Mukhopadhyay & Sriprakash, 2011) and do not feel incumbent to expend extra effort on these students. To what extent, then, are teachers' attitudes about caste, economic status, and religious difference reflected in their perceptions of student failure?

Theoretical Framework

This study employs Bourdieu's theory of linguistic cultural capital and unexamined exclusion as a means of perpetuating social inequalities to examine how "teachers' judgements on their pupils transmute social classifications into school classifications" (Bourdieu & Passeron, 1990, p. xxiv). Bourdieu suggests that a "pre-established harmony" between historical legacies and educational systems often results in a "social selection" which legitimizes cultural reproduction and converts social hierarchies to academic hierarchies. Within the Indian context, it could be said that the perceived and actual social and economic advantages of English-speaking elites, as part of the post-colonial historical legacy, have provided the justification for English as a medium of instruction in schools, thus recreating social class structures in schools (Jhingran, 2017; Velaskar, 2015). The study attempts to understand to what extent teachers in the lowest tier of such schools, as members of this aspirational group themselves, continue to perpetuate social inequities in their identification and responses to students they deem academic failures. Based on an analysis of the perspectives of six primary schoolteachers at an LFP English-medium school, this study sought to understand how teachers'

attitudes toward low SES students affected their instructional practice, their interactions with their families and, in particular, their responses to the students who struggled academically. It considers the implications of these attitudes for the quality of education their students receive.

HISTORICAL CONTEXT OF THE INDIAN EDUCATIONAL SYSTEM

The Indian government has come a long way since its initial steps toward universal primary education in the 1950s to the Right of Children to Free and Compulsory Education Act in 2009 (UNESCO, 2015; Ayyar, 2017). This section presents two government policies in the Indian educational system: inclusive education or Education For All (EFA), and language of instruction. It then examines the implications of these policies in the context of the establishment of LFP private, English-medium schools for poor students, which sprang up in response to the economic liberalization policies in the early 1990s.

Inclusive Education and EFA

Historically, education in India was the domain of elites. In the 1950s, newly independent India, responding to prompting from international aid organizations, embarked on providing universal primary education by building schools, training teachers, creating curriculum, and providing instructional materials (Ayyar, 2017). Yet, UNESCO's (2015) assessment found India short of the global EFA 2015 goal. Many children were still out of school, including urban poor children, children of migrant laborers, girls, *dalits*, and children with disabilities (Jhingran, 2017; Velaskar, 2015). In the mid-2000s, the government EFA program, *Sarva Shiksha Abhiyaan*, made efforts to enroll and retain the out-of-school populations through non-formal educational options, cash incentives for enrolling daughters, and government-run special schools for children with disabilities (Ayyar, 2017). The World Bank-funded *Janshala* program focused on including children with disabilities and trained general education teachers on inclusive education.

Private schools received state aid if they enrolled "scholarship" students from low-income backgrounds. However, many low-income children who struggled academically, especially in the context of learning academic English, began to be perceived as being learning disabled (Jhingran, 2017; Kalyanpur, 2015; Mukhopadhyay & Sriprakash, 2011).

Thus, even as national efforts strove toward inclusion of historically marginalized children, schools were erecting exclusionary instructional practices toward re-marginalizing these same populations.

Language of Instruction

British colonial policy enabled missionaries to establish private schools for Anglo-Indians and upper-caste Indians to ensure, as stated in the infamous 1835 Macaulay Minute on education, "a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect" that could serve in the imperial administrative services (Waldrop, 2015). Inevitably, the medium of instruction was English. With independence, the Indian government established states along linguistic boundaries and adopted both Hindi and English as the national languages, with the intention of phasing out English. This resulted in a tiered system with the medium of instruction remaining English in elite private schools, and the regional language at state levels and Hindi at the central level in government-run schools. However, the prevailing legacy of the elite missionary English-medium schools, the increasing global acceptance of English as the universal *lingua franca*, and, most significantly, the policy decision to establish English-medium higher education institutions, increasingly led to the perception that acquisition of English was the path to success (Kumar, 2017; Mohan, 2017; Motha, 2014). Poorly resourced, often lacking trained or any teachers, particularly in rural areas, and with large class sizes, government-run schools fell into disfavor, as the government continued to provide regional language-based education. One exception was the central schools or *Kendriya Vidyalaya*s, which provided high-quality education in Hindi.

Private Low-Fee Paying English-Medium Schools

Missionary run English-medium schools, considered the top tier of education, served less than 2% of the population (Waldrop, 2015). However, economic liberalization policies in the 1990s brought the private sector into the arena of educating the masses with English as the medium of instruction (Kumar, 2017). At first, this yielded a second tier of English-medium schools for the middle and lower-middle classes. While students in top tier schools came from English-speaking backgrounds, second tier students did not necessarily, although their parents might be familiar

with, if not fluent, in English. However, they had access to English through television and books, and might speak in English among their peers. In time, a third tier of schools arose: the LFP English-medium school, attracting low SES, non-English-speaking parents aspiring for a better standard of life for their children through the acquisition of English. Third tier students lacked access to English through mass media, since English television channels charge a premium, or exposure to English through their community, families, or peers.

Looking at the increasing trend toward LFP schools in many developing countries, scholars assert that such schools are a much-needed response, given governments' inability to provide adequate educational services (Day et al., 2014; Tooley, 2009; Tooley & Dixon, 2005). In India, for instance, many schools have emerged from education trust funds set up by companies as part of their corporate social responsibility, allowing students access to an English-medium education and break through the bastion of the 2%. Other scholars, however, argue that private schools exploit low-income parents' aspirations for their child to access top tier higher education by providing poor quality English-medium instruction (Kumar, 2017; Nambissan, 2012; Sarangapani & Winch, 2010). Indeed, although many LFP schools receive state aid because they serve underserved students, they are not regulated by the state. Unregulated, and as a way of cutting costs, schools often maintain large class sizes and hire untrained teachers or pay extremely low salaries, winnowing out quality teachers.

METHOD

A case study approach (Yin, 2009) using qualitative research methods was applied to focus on one school. Over a four-month period, I conducted classroom observations and ethnographic interviews of teachers at grade levels 3–5 as well as an analysis of student work samples. I began by observing in three sections of each grade level, and then focusing on six teachers who expressed willingness to participate in the study. At this point, the teachers were asked to identify students they thought were struggling academically. They were interviewed before and/or after the observation and asked about their instruction and their assessment of these students' performance, as well as their demographic details, including level of education and teacher training qualifications.

In addition, I interviewed the headmistress of the primary school, a member of the Board of Trustees, parents or guardians of the students the teachers had identified, and tutors from private remedial programs, and observed some remedial class sessions conducted in the school. Interviews were conducted in Hindi with the parents and in English[1] with all other participants. Notes were taken during interviews and observations, which were written up more extensively as field notes totaling about 115 single-spaced, typewritten pages. Data was analyzed using a recursive, constant comparison approach (Corbin & Strauss, 2015), punctuated with analytic memos to identify themes and when data saturation had occurred.

Selection of the school. The "ubiquity of private schools" (p. 4) that astonished Tooley in 2009 has not diminished. Within the quarter-mile walk through the village to the case study school, there were three other LFP, private schools. One was also an English-medium, but lacked standing within the community because it was established just five years ago, was still operating within a residential building, and only went up to primary school. The second was a Marathi-medium school that, in the last two years, had begun to offer an English-medium science and math strand starting from grade 3, and the third offered parallel Urdu- and English-medium tracks from primary to high school. The case study school was selected because of convenience of access through a personal/professional connection, as tends to occur in India. A faculty member at my institute of affiliation who had been invited to give a talk to the parents of the students at this school offered to introduce me to a Board of Trustees member to get permission to spend some time observing the school and interviewing the teachers.

The setting. The school was located in a neighborhood on the outskirts of a metropolitan city. Many Muslim families fleeing communal riots in the city in 1992 had resettled here, changing the demographic profile from predominantly Hindu. Migrant families seeking jobs in the urban labor market had also settled here, living in shacks on top of a large landfill nearby. By 2017, when this study was undertaken, there was a bustling community of low-income housing, from *chaal* (chummeries)

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[1] Teachers spoke in Indian English, a hybrid form of English, which often takes on the grammatical structure or maintains some words of the speaker's native language. To maintain the integrity of their words and voice, no changes in structure have been made in the transcription.

to *busti* (slums), and small retail shops. All the students came from this low SES neighborhood, some deemed so poor they received state-supplied free uniforms and fee subsidies to attend school. All were being introduced to English for the first time in school; they spoke Hindi, Marathi, Urdu, Bhojpuri, or Tamil at home. Many were Muslim. Their parents also spoke no English. Many, particularly the migrant families, had no or little education. One mother worked as a maidservant, while the others were financially dependent on their husbands. The fathers worked as construction laborers and street vendors. One father owned a scooter and co-owned a retail shop. The school charged $9.60 (Rs. 550) monthly tuition fees to maintain its LFP status. Although this seemed like a small sum of money to the school, the parents always mentioned this cost as a hardship to them. As they noted, there were additional expenses like schoolbooks, uniforms, and private tutoring services that responded to students' needs for more personalized support and cost as much as the school tuition.

The school was a three-storied, concrete building. In the morning, it was a primary school for grades 1–5. Each grade had five sections with 50 students in each section. In the afternoon, it was a secondary school for grades 6–10. It had a ramp at one entrance and an elevator for accessibility, although no students ever used the elevator. It had mud-packed playgrounds in front and at the back, a luxury in a city where land was at a premium.

The classrooms were well, although not brightly, lit. The windows, which ran the length of the room, were kept open for fresh air. The furniture took up the entire space in the room. The desks were narrow; students were constantly dropping books, slates and pencil boxes off their desks. Two, in some cases three, students sat at each desk. A teacher's platform occupied the front of the classroom. As the desks came right up to the platform, the teacher had to climb onto the platform to get to the teacher's desk across the front of the room. Across the windows was a blackboard on which teachers had stuck instructional posters, like flash cards saying "please," "thank you" and "please side." In one classroom, for instance, a poster identified homophones like cell/sell, sail/sale, knight/night, etc. The rest of the board sported pictures of various minor saints, like Sant Namdeo, Samarth Ram, and Sant Janabai as part of the state curriculum on Shivaji, who has been elevated as a hero of the Hindus by a fundamentalist Hindu political faction. These pictures may have been intended to convey a subliminal message to the

Muslim students that the teacher espoused the fundamentalist values of Hinduism.

The participants. The Board of Trustees member and the primary school headmistress suggested that I focus on grades 3–5 since "there is no curriculum before (these grade levels)." After my initial observation, I asked the teachers if they would be willing to be interviewed and observed again, and I focused on two from each grade level who agreed. All the teachers interviewed for the study were female, Hindu (there were no Muslim teachers in the school), with ages ranging from early twenties to late thirties. Having only completed a diploma in education, a lower tier in teacher training than a bachelor's degree, they would not be hired in a government school or a middle tier private school where the pay would have been higher. While their own lower middle class backgrounds had enabled them to go to middle tier private schools where they had learned English, they too rarely spoke it at home. One of them mentioned that her children now preferred speaking in English at home, so she would speak to them in English, but the primary language was still Marathi. While they all said they enjoyed teaching, the teachers also mentioned that it was a convenient profession, because it allowed them to "do the housework" and earn a supplemental income to send their own children to middle tier English-medium schools.

Findings

A general, overarching perspective the teachers held was that they were not responsible for ensuring that students learn. This attitude was illustrated by (a) the largely negative views they held of their students' home backgrounds; (b) their focus on teacher-led instruction, emphasizing rote memorization, despite an awareness of the benefits of child-centered learning; and (c) their minimal engagement with students who struggled to learn. These three themes are discussed in this section.

Teachers' Negative Views of Students' Home Backgrounds

The teachers in this study strongly held the view that parents were equally responsible for ensuring that the students were academically successful. Yet, they held fairly negative views of their students' background and believed that the parents themselves needed to be educated about

school. Several made their biases against particular communities and religious minorities explicit. As one teacher put it:

> Parents are not understanding. They are coming from slum areas. Many are Muslim. They are illiterate. So we have to explain, we will teach discipline to your child. Please come to school on time. Please finish your homework. So the parents also learn.

The need to educate the parents as well permeated all aspects of instruction. An environmental studies lesson on water storage, for instance, became a didactic opportunity to teach ways to save water at home. The teacher ended the lesson by saying: "Tell your parents, don't throw the drinking water. It hasn't turned bad, we can use it to water the plants." Another teacher noted that on the first day of school:

> We had a meeting with the parents and explained to them we will be teaching through games, so we will need some games materials. Because the parents complain that we are always asking them to spend more money, we explained that they don't need to spend any money for these materials. Like these letter cards, they can just make from the tailor's (card)board. We asked them to make four sets of numbers and four sets of each letter. We told them we will ask them to make from low-cost materials.

Although this suggests a sympathetic response to the financial circumstances of the parents, in most situations, the teachers' perspectives on their students' SES were rooted in the attitudes reflected in society (Jhingran, 2017; Velaskar, 2015). The teachers' superior status was reinforced through small gestures from the families as well. Students brought toffees on their birthdays, which were distributed among all the teachers in the school. Some teachers had students bring snacks for them, which they ate during the short 15-minute break. One teacher ate steadily out of a stainless steel tiffin box during an observation. When the bell rang at the end of the break, she put the box into a small plastic bag, held it up to the class and asked, "Whose is this?" then handed it over to the student who claimed it.

The entrenched hierarchy, particularly the mores exhibited through the caste system, defines every social interaction between Indians (Sharma, 2019; Velaskar, 2015). For the teachers, the students by being

"from slum areas" represented an aspect of social undesirability, and were, therefore, beneath them. They took pains to note that they themselves came from an adjoining, less impoverished neighborhood and that their own children attended middle tier English-medium private schools. Similarly, Bansal's study (2018) of general education teachers' perspectives on inclusive education noted that the teachers believed that children with special needs tended to come from families from low socioeconomic backgrounds who "lacked the motivation to educate them"; the teachers described the fathers as "alcoholic" and the parents as being "hardly interested about the performance of their children" (p. 120).

The teachers in this study were required by management to offer special after-school sessions on Saturdays to go over the content covered through that week. They openly berated the parents, when they came to pick up their child, for not taking responsibility for making sure their child had the necessary notes, thus necessitating these make-up sessions. According to them, if the parents themselves could not help with their child's homework, then as responsible parents, they should arrange for their child to attend remedial classes, or private group tutorial services where students revisited the day's learning. Scholars have commented on this equally fast-growing "shadow education" (Sarangapani & Winch, 2010), a parallel system of private, unregulated tutoring services that have stepped in to provide more customized instruction for individual or small groups of students (Kumar, 2017). Frequently conducted from a residence by a person who had a bachelor's degree but no teacher training, these classes retaught the same curriculum students were learning at school, often using the very same notes students had taken in class. Parents were aware of this expectation, which was fast becoming a necessity in schools with such large class sizes, but many could not afford this service. In their interviews, they mentioned that the costs of remedial classes were almost as high as the tuition costs for school, and would only increase as the child went up the grades.

An Emphasis on Rote Learning

Teachers were aware of the need for and did incorporate activities beyond paper and pencil and copying from the board tasks. They mentioned that, last year and this year before school started, they had attended a training workshop in a neighboring district organized by management where they learnt about classroom decoration and using

games to teach—what they called "game play" or "hands activities." Posting pictures on the walls was the result of the new training they had received where they learnt of the importance of decorating the classroom to make it attractive to the students. Also from this training on using child-centered instruction, they had developed some teaching materials, which they pulled out in almost pristine condition from their closets to show me. In some lessons that I observed, they used variations of manipulatives to teach math, and introduced some physical movement to transition between class periods. However, with fifty students in their classes, they struggled to teach students the curriculum and academic language toward eventually passing the state-mandated school completion examinations. As a result, they tended to fall back on traditional teacher-led approaches that emphasized rote learning as being the most expeditious means of "teaching to the test."

Choral recitation was a method frequently used to reinforce new information. By far the most popular method of instruction, however, was to write the main points of the lesson on the blackboard and have the students copy these notes into their notebooks. All lessons ended with teachers writing down a series of questions and answers on the blackboard, which the students would spend the rest of the class time copying into their notebooks. Each grade level had a head teacher who prepared the lesson plans for the grade and determined what the students would be taught. As the head teacher of the third grade explained:

> I am making notes on what I am teaching and next day, other teachers are teaching the same. So (this teacher) is taking the student's notebook to use for her class also. Here is the paper pattern (the questions for the end of term exam which would be held next week, which also included how many marks each question was worth). So I have to write this two-two times, once for the notes and once for the students.

When I asked if she was paid more money for being the head, since this was a lot of work, she said she was not, but that "the position changes each year. So next year, I will not be the head."

The need to rely on rote learning was exacerbated by the medium of instruction in this school. Spontaneous use of English among the students was limited to utilitarian statements like "Please can I enter, ma'am?" Students' answers to teachers' questions on the content were invariably in Hindi. Classroom observations indicate that efforts to teach

in a language that was unfamiliar to the students were equally cumbersome for the teachers. During some lessons, one student might answer a question in English, but in most cases, the teacher would have to remind the students to answer in English, at which point the student would become silent. The teachers themselves used a mixture of hybridized Indian English, Hindi and Marathi to explain the content of a chapter to teach, unconsciously applying some sound principles of bilingual education (García, Johnson & Seltzer, 2017). As my notes on a lesson on shelter show:

> "Where does the ant live?" asked the teacher in English, and then added "cheentee" and "mungi," the words for ant in Hindi and in Marathi, respectively. Switching back to English, she chanted, "Ant lives on the hill." The students recited the sentence after her. Now she said in Hindi, "Many people think that snakes go into the house of ants and they destroy the anthills. Can a snake live with an ant? No, it will get bitten. So the snake doesn't live near ants."

Ironically, since they had not received any training on teaching English as a second or foreign language, their use of "translanguaging" strategies (García et al., 2017) was more serendipitous than deliberate and they remained reluctant to accept my argument that their explaining the content in Hindi would help students to understand better. As one teacher almost lamented, "This is an English-medium school, but what to do? We have to explain in Hindi, sometimes even Marathi. Otherwise, they are not getting."

Further, explanations in English and translations were not always smooth or accurate. During one math lesson on shapes, the teacher tried to explain the difference between the sides and angles in English. Although the students might have been familiar with the term "side' since it is often used in Indian English, she used the less familiar words "edges" for sides and "corners" for angles, and as she continued, she herself became quite confused and began to use "edges" for angles. In another lesson in grammar, the teacher asked the students if they understood what was meant by the sentence in English, "he poured the oil from a height." Now "height" is a homograph in English, meaning both tallness and altitude, but it is not in Hindi. When a student replied in Hindi, "*lambai*" which means tallness, and was very likely the context

in which he had heard the word, the teacher rejected the answer (as not being "*oonchai*" for altitude) without explaining why it was "wrong."

Minimal Engagement with Struggling Students

Students were left to their own devices during the copying section of the lesson while the teachers sat at their desks and graded students' notes copied from the board from the previous class. Students deemed successful were those who memorized the notes from each lesson and were able to reproduce them with similarly worded or duplicative questions in the term-end examinations. Students who struggled to copy the teacher's notes from the blackboard were instructed by their teachers to copy from their classmates who had completed the task. This idea of classmates helping classmates that the teachers themselves endorsed was striking. It reflected the hierarchy of the larger culture by creating tiers of students. In a class averaging 50 students, the top five to ten (twenty percent) students were able to keep up with the pace of class, including the copying from the board, and could answer in Hindi the teachers' questions asked in Hindi (they had to be prompted to answer in English). The teachers set the pace of the class by them, their notes were used as examples and shared with the rest of the class, and they usually occupied the front rows. For these students, attending remedial classes ensured that they stayed at the top of the class.

The next tier consisted of about thirty (sixty percent) students who would not be able to answer any questions orally in Hindi or English, who would be the ones protesting when the teacher erased the board, and would need to copy from their top tier classmates' notes—which, it must be noted, the latter willingly shared. For these students, attending remedial classes became a way to learn what was taught in class, be helped to identify what was important to remember, and be coached to pass the exam. The last tier consisted of the remaining five to ten (twenty percent) struggling students whom the teachers deemed as being at the bottom of the class—the "back benchers" or "slow learners"—with whom they engaged minimally. These students were given the notes from second tier students, which they dutifully copied, without the least understanding of what they were writing. Like the children's game of "Chinese whisper" where a whispered phrase gets distorted as it goes down the line, their notes were mostly incomprehensible with a

few glimpses of what the original notes were, and characterized by what teachers complained as being "bad handwriting."

When I asked the teachers how they responded to students who might need extra support, they uniformly answered that the students did fine when they provided a little more explanation. As one said:

> I'm calling them separately and asking them, how did you get this? They know the answers, only they are confused. Once I explain again to them, they are understanding.

I asked her when she did this, and she said, "While I am marking their answers only." I did observe these interactions but they appeared to be more correctional or admonitory than supportive. The corrections also appeared to be focused more on structural issues than on content. For instance, one teacher berated one student because he had "not left a line after the question" and another because he had "not written the title of the chapter" at the top of the page. Another teacher told a student as she returned her notebook, "Very bad homework and lots of mistakes are there. I have put circles. You must redo." Yet another called a student down to her desk and pointed to his open book that she was grading, "Why is this incomplete? What is the meaning of the question mark? Why have you not completed?" In several cases, the situation appeared to merit involving the family. One teacher called out to a student in Hindi, "Call your Aunty. I want to meet your aunty today," meaning that the student should bring her aunt who would be coming to pick her up at the end of the school day to the classroom so the teacher could berate both aunt and niece, as I observed later. A second teacher commented, "Index is not correct. So many mistakes are here. Your sister is in which class?" indicating that she expected the student's older sibling to meet with her later.

Most of the 22 students that the teachers identified as needing additional support, whom they referred to as "back benchers" or "slow learners," were male and Muslim. Since the teachers knew my focus was on these students, sometimes they would comment on their work. One teacher described what she saw as problematic behavior in her student within earshot of him and two classmates:

> This boy is weak in maths. He is not having a mother, first thing. Then he is different only. He is touching others, girls, boys, the same. And suddenly

he is singing songs, Marathi, Hindi. But what to do? We have to allow the students to come.

Another time, as I watched a student painstakingly and painfully copy from the board, the teacher walked up to me and said:

She's very slow. She understands everything but she's very lazy. Other day, parents were asking if she can sit in the front. I was telling them, she is very tall. How can I put her in the front?

When teachers asked students to pull out their textbooks to follow along as she read, not all the students would have their textbooks with them, and the teacher would ask them to share. Invariably, the students at the back would have too few books to share, or not be able to find their place in the book. As one teacher explained, in a resigned tone, "They are like this only. (He) is always coming without his book."

Teachers even scolded these students for the kind of meals they brought to school. Most children brought grain-based Indian breakfast foods or a sandwich for a snack during recess and heavier meals, usually involving rice or roti for lunch. The teachers would go around checking to approve of these meals. They did not approve if their back-bencher students brought a sandwich for lunch or bought ready-made snacks ("packet food") for recess for ten rupees a month from private vendors on the school premises, because, as a teacher explained, it meant that the "parents didn't have time to prepare proper meals for their child."

The teachers themselves had not received any training to help with the struggling students, and since the school did not receive any government aid, it could not benefit from the services of a government-supported itinerant special education (SSA) teacher to support struggling students. According to the headmistress, the only governmental oversight occurred twice a year, when an inspector from the state department of education checked attendance records and the general registry. As she noted, the general registry has "the name of the student, father's name and mother's name, also child's date of birth, birthplace, caste and religion (to) cross-check for the caste certificate with the date of birth and admission date." Since the majority of the students were academically successful and were able to learn from the instructional techniques the teachers used, they felt generally that they were not responsible for those who could not. As one teacher put it:

> If the child is not learning, if he is weak, if his handwriting is poor, if he is not able to copy the notes, what can we do if they are not getting? He is coming from slum areas, his parents cannot support because they are not knowing English.

Their only recourse was to have the student attend the "extra class," the remedial sessions they held on Saturdays, where they "retaught" the lesson by giving the student more time to copy the notes from a classmate's notebook. In one instance, a teacher recommended that the family take their child to be assessed at a learning disability clinic at the government hospital. The assessment provided little additional information that the teacher did not know, and did not offer any suggestions for alternative instructional strategies. Although they noticed that, when I worked with individual students during the copying section of the class period the students did understand the concepts, they were reluctant to take time away from grading books to provide that additional support. As they saw it, there would "always be five, six students who are failing in each class," and investing time in these failing students would bring no dividends. If these students dropped out, there were ten new students who would be admitted to the school and keep enrolments up.

Discussion

While generalizability may be limited from the study of a single school, there is a pattern in the findings, which suggest that, despite efforts toward EFA, the poorest of the poor continue to be the most disadvantaged in terms of access to quality education. The microcosm of the school reflected the larger Indian context. As Bourdieu and Passeron (1990) note, linguistic cultural capital privileges speakers of the colonial language over speakers of the mother tongue, even decades after independence, primarily because of the social and economic dividends of an education in countries such as India, where knowledge of the colonial language facilitates access to top tier higher education and employment opportunities. Offering English as the medium of instruction gave the school in this study a particular cachet that attracted families from low socioeconomic backgrounds with little to no current access to English and with lifestyle aspirations to better-paid jobs by virtue of having acquired this skill. In reality, however, despite claims of being an English-medium school, in a societally multilingual context both teachers and

students used several languages simultaneously in everyday instruction. This mélange of languages rendered almost all students inarticulate in spoken English and the majority fluent in oral recitation and written regurgitation in English that was targeted solely at passing the test, as other studies show (Kumar, 2017; Mohan, 2017). Students unable to muster the skill of copying swiftly or accurate memorization were considered academic failures or "weak in studies"; no additional supports were provided. Teachers were unwilling to assume these students as their responsibility and instead expected the parents to do so, although they were aware that the parents lacked the linguistic cultural capital as well. This expectation has resulted in a "shadow education" system of remedial classes that counters the negative effects of large class sizes in low-fee paying schools by offering students somewhat more customized or individualized support if parents can afford the service (Kumar, 2017).

Further, in a societal context of Hindu–Muslim political tension, teachers routinely identified Muslim students as struggling and coming from homes where parents "are not paying attention to the child," despite interviews with parents which suggested otherwise. These attitudes are corroborated in other studies (Bansal, 2018; Jhingran, 2017). In classrooms where less than half the children were Muslim, the teachers saw nothing untoward that almost all the students they identified as struggling were Muslim. Locational context may have played a role in this. The school was situated in a predominantly Muslim area, but most of the students and all the teachers were non-Muslim (and predominantly Hindu), and many Muslim families sent their children to the neighboring Urdu-medium low-fee paying school. The school was also located in a state where the political party espousing Hindu fundamentalism as part of its platform had a stronghold; the state curriculum had been overhauled recently to erase many Muslim or Moghul contributions to Indian culture and incorporate instead the exploits of the party's historical hero, Shivaji. This embedded bias against Muslims that has become more overt in recent years almost seemed to justify the teachers' resolve that these children could not be helped, because of their backgrounds.

It must be acknowledged that expecting teachers to take responsibility for all students succeeding is a western sensibility that emerges from its current context of accountability, embodied, for instance, in U.S. legislation like the Every Student Succeeds Act of 2015 (or its predecessor, No Child Left Behind) and in instructional approaches like

Universal Design for Learning. Although the reality falls far short, there is an expectation that teachers offer differentiated instruction, and measures such as Adequate Yearly Progress (AYP) on which schools are rated include students' performances on standardized tests as an indicator of teachers' instructional impact. This is not to suggest that these structures, controversial as they are, are applicable to other contexts, but there is something troubling about the complete lack of expectation among the teachers in the Indian milieu, especially considering the population being served here (Jhingran, 2017; Kumar, 2017; Velaskar, 2015). With the government ceding territory in educational service provision to the private sector, for whom the profit motive is typically all-consuming, even low-fee paying schools render the education for all promise hollow. Rampantly unregulated, these schools exploit poor parents' aspirations without having to meet any standards of quality. Further, the canny stratagem of offering English-medium of instruction, which attracts parents to invest in their child's education in many cases far beyond what they can afford, has proved successful precisely because it is based on a shrewd and, arguably, accurate market analysis of the Indian social context and hierarchies (Mohan, 2017; Waldrop, 2015). While some low-fee paying schools have been set up by non-profit agencies, few focus on serving the poor in the regional language.

The teachers themselves have little agentic control, or the power or opportunity to make choices or exert control (Bandura, 1999), over the system. Their attitudes are reflective of their realities, their social worlds, and their own aspirations. Exploited themselves through underpay and overwork, they bring little passion to their vocation. Their work is a means to an end: the aspiration to a better lifestyle for their own children, just like the parents of their students. While they were willing to employ games and manipulatives if these techniques would achieve the purpose of helping students learn what would be on the test, they fell back easily into the pattern of emphasizing choral recitation and rote memorization to ensure that their students would know the content, regardless of level of comprehension. Further, while they recognized on some level that inclusive education was a moral and desirable common good, they firmly believed that not all children could acquire or benefit from—and that it was not their responsibility to ensure this (Mohan, 2017; Velaskar, 2015). Most significantly, despite their own facility in the English language and the school's claim to being English-medium, and perhaps because of their own lack of training in teaching English

as a second language (Kumar, 2017), they failed the majority of their students in teaching them English that the students could understand and converse in toward becoming upwardly mobile.

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CHAPTER 6

Exploring the Gender Gap in Reading in Pakistan

Shaheen Ashraf Shah and Grace Armstrong

INTRODUCTION

This chapter focuses on exploring gendered dimensions of early grade reading through research undertaken in a National Gender Study (NGS), funded through the Pakistan Reading Project (PRP).[1] PRP, an initiative of the United States Agency for International Development (USAID), commenced in 2013 and aims to improve the literacy skills of 1.3 million grade 1 and 2 students in Pakistan. Ranked as the world's sixth most populous country, with a population of 208 million, Pakistan's primary schools enroll just 19.3 million children, while

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5 million children, aged 5–9, are out of school. Of those attending school in rural areas, the Annual Status of Education Report (ASER, 2015) shows that 45% of grade 5 students cannot read a sentence, while 31% cannot read a single word in Urdu/Sindhi/Pashto (p. 78).

By the end of the project (2020), PRP will have improved reading instruction and assessment performance, reaching over 23,800 teachers and 1.3 million grade 1 and 2 students across 7 provinces/regions of Pakistan. Since its inception, PRP has worked with the government to improve the quality of education for children in early grades and create a culture of reading in Pakistan. Because Pakistan's education system is devolved to the provincial level,[2] PRP actively engages with provincial governments to contextualize federal policies. Specifically, PRP has continuously implemented a robust in-service Continuous Professional Development approach, which will continue to support teachers to effectively teach the five component skills of reading (phonemic awareness, phonics, vocabulary, fluency, and comprehension), with writing and print concepts integrated. In addition, PRP has developed and distributed 5.25 million new reading-learning materials to date for teachers, students, and education officials in three local languages: Urdu, Sindhi, and Pashto, as well as in other mother tongue languages. The material, apart from being the first phonic-based reading material of its kind in Pakistani schools, also focuses on themes of culture, gender, diversity, child protection, and inclusion. These themes resulted from a thorough study of the existing government materials through the NGS, where PRP noted significant scope for improvement.

This case study draws from the multi-method large NGS, which was conducted in the PRP-supported public schools across the country (USAID, 2017). The NGS responds to the following research questions:

1. What gender gaps and challenges exist that contribute to differences in girls' and boys' reading abilities?
2. How gender sensitive are teaching and learning materials in PRP target schools for grades 1 and 2? Specifically, how frequently are males and females, respectively, represented in text? (e.g., Is there equitable representation? Is language inclusive? Are non-violent situations and interactions included?)

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[2] Eighteenth Amendment to the Constitution of Pakistan (2010).

3. To what extent are PRP components and interventions gender sensitive and equitable?
4. What are innovative ideas for creating gender-sensitive environments in schools/classrooms, at home, and in communities that promote reading skills for both girls and boys?

This chapter originates from the NGS research but does not encompass the entirety of our findings. Specifically, the factors we will explore in this chapter shaped the way in which we approached the NGS across all four research questions, and thus, we hope our discussion will provide a helpful foundational framework for thematically related studies in varying contexts.

By examining the gender disaggregated Early Grade Reading Assessment (EGRA) scores and NGS findings in this chapter, we[3] focus and reflect on the gendered attitudes, practices and perspectives of learners, and teachers toward reading at home and in school. By examining the low, average, and high performing learners' reading practices, as well as teachers' perceptions, attitudes, and practices in the classroom, this empirical study reveals how various reading achievement factors intersect with gender—specifically, how these impact girls and boys, respectively, to fall behind or to succeed. We aim to unpack the relationship between teachers' gendered practices and the reading ability of learners in the particular context of Pakistan. In doing so, this research intends to attract academics, students, and practitioners interested in gender equality in policy and practice in reading, especially in the global south.

In this chapter, we define *learners' practices* as the reading habits of girls and boys, their available support for reading at home, private tuitions (tutoring), and student socialization. Moreover, practices like violence in the home and at school and teaching and learning environments in relation to reading ability are examined through both learners' and

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[3] The authors designed the study, compiled and analyzed the resulting data, and wrote the NGS report but were not the enumerators. Local consultants through a consulting firm (Management and Development Center) were hired for data collection and compiling the preliminary findings in the field under the supervision of Dr. Shaheen Ashraf Shah. Dr. Shaheen Ashraf Shah is the Director Gender on the Pakistan Reading Project based in Islamabad. Grace Armstrong was the Washington, DC-based project manager and gender focal point on the Pakistan Reading Project.

teachers' perspectives. We further define *teachers' practices* in relation to male and female teachers' respective perceptions of gender and reading ability and their use of pedagogical materials analyzed through classroom observations and interviews.

By using USAID Pakistan's EGRA 2014 and 2017 findings, this chapter first provides an introduction to the concept of a gender gap in reading—both more broadly and in various regions/provinces of Pakistan—and the methodology used in the NGS. We then explore the findings on gender differences in reading habits, teaching and learning support at home, private tuition, student socialization, teaching and learning environment, exposure to violence and bullying, and the use of teaching and learning materials. Finally, we summarize how a cross-sectional analysis of these factors contributes to closing the gender gap in reading and suggest applications of this research to address cross-cutting gender inequities in education programming.

Gender and Reading

Understanding trends in student performance allows for implementers and policymakers alike to effectively target education reform. Disaggregating data by gender informs accurate trend analyses, illuminating gaps and opportunities in education sector reform. The EGRA is an internationally accepted, individually administered, school-based assessment tool that is used to support the long-term measurement of improved reading skills. It is important to understand that the concept of reading and systematic assessments, like the EGRA, are still new to many developing countries, though their use is increasing, even if at a small scale. Discussion of performance trends for girls and boys is often absent from EGRA reports, which provides only a one-dimensional analysis of students' progress in reading. Even comprehensive instructional books on EGRA implementation like RTI's *The Early Grade Reading Assessment: Applications and Interventions to Improve Basic Literacy* exclude any mention of gender analysis in EGRA (2011). To examine this trend, we will briefly discuss EGRA approaches from Yemen, Nigeria, and the Philippines, and provide a cursory summary of other countries' gender disaggregated EGRA scores, thereby situating the Pakistan EGRA results within other global south implementations. Finally, we will discuss the research on gender and academic performance to underline the importance of understanding the conditions which

produce gender-reflexive[4] EGRA scores through other gendered factors in children's environments.

The USAID-funded EGRA conducted in Yemen assessed 735 students in grades 2 and 3 in 40 schools across Amran, Lahj, and Sana'a governorates (USAID, 2012). The Yemen EGRA report provided an analysis of contributing factors to achievement in reading, highlighting *attendance*, *opportunities for practice*, and *corrective feedback* as the primary factors contributing to reading achievement, though these were not disaggregated by sex. The report therefore provided little insight into the differences between reading achievement for boys and girls, respectively, but did suggest many of the commonly understood positively contributing factors to reading achievement irrespective of gender. EGRAs conducted in Nigeria (Bauchi and Sokoto states) in 2010 and 2013 aimed to evaluate the low reading scores among early grade students and provide recommendations for corrective action (USAID, 2015). Namely, this approach focused on improving reading instruction by providing age-appropriate Hausa reading materials, building teachers' capacity to teach reading, providing classroom-based support and peer learning opportunities for teachers, and encouraging parents and communities to support a culture of reading at home. Unlike the Yemen EGRA, the Nigeria assessments were supplemented by qualitative surveys and classroom observations, and the student scores were disaggregated by sex. Moreover, the report details the characteristics of schools, students, teachers, and school support/coaches in primary 2 classes in Bauchi and Sokoto states, though without specific discussion of gender differences. The most gender-inclusive of these EGRA reports, the USAID Philippines Basa Pilipinas Program, collected data on reading performance in grades 2 and 3 in targeted regions in the Philippines (USAID, 2018). From 2013 to 2018 (four years of intervention), the EGRA end-line report showed no improvement in closing the gender gap. Girls continued to outperform boys in reading achievement in Filipino/Tagalog and English in both grades 2 and 3. The final EGRA report includes specific recommendations on increasing boys' performance in reading, noting that gender norms at home and in the

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[4] The authors use 'gender-reflexive' here to highlight that the cause and effect is linked. This suggests that a boy, for example, might perform poorly on a reading assessment not only because of external gendered conditions but also because of the internalized and gendered expectations of *boys*' reading achievement.

classroom negatively affect boys' achievement (USAID, 2018, p. 80). Across these three illustrative examples, we highlight that the approach to understanding girls' and boys' respective reading abilities through EGRA can vary from complete absence to nuanced analysis.

The results of EGRAs across developing countries also complicates our understanding of trends in gender disaggregated reading achievement. EGRAs administered with the support of international donor agencies in several other low- and middle-income countries reveal that in some contexts (Afghanistan and Mali) boys performed better on nearly all of the reading assessment tasks; in others (Bangladesh, Nigeria, Malawi, and Uganda) gender differences between boys and girls were either small or comparable on all the reading tasks. In countries like Nepal, Ghana, Egypt, Liberia, Jordan, and Pakistan, reports uncover that girls had higher scores in general than did their male counterparts, showing that girls tended to be better readers than boys. These conflicting case studies form a strong case for continued research on gendered approaches to early grade reading.

To understand EGRA results along gender lines, we look to the research on attitudes, behaviors, and practices at home and in the classroom. Current research claims that boys and girls have different attitudes about reading, teachers bring their gender biases into the classroom, and parental engagement in their child's education varies by gender, all of which contribute to the "gender gap" in access and achievement that students experience in schools today (Nonte, Hartwich, & Willems, 2018). Several studies reveal that female students consistently read more than male students from primary education through higher education (Loveless, 2015; Blackwood, Flowers, Rogers, & Staik, 1991; Gambell & Hunter, 2000; Greaney & Hegarty, 1987; Hall & Coles, 1997; Simpson, 1996; Watkins & Edwards, 1992; Whitehead, Capey, & Maddren, 1974). Some studies suggest that female students devote more time to reading and that reading assessments are biased against boys, while others highlight that classroom, curriculum content, and school environment are feminized, and that boys view reading as a feminine act (Dutro, 2003; Tenenbaum & Leaper, 2002).

To explain boys' underperformance in many cases, researchers suggest various explanative factors including but not limited to biological differences in brain development, "systematic gender biases," styles of teaching, curricula content, assessment format, and socioeconomic status (USAID, 2016, p. 12). Boys' underachievement must be disaggregated

by location (urban vs. rural), ethnicity, language spoken at home, socioeconomic status, and school environment, among other categories, so that researchers can better understand which factors most influence performance (USAID, 2016, p. 16).

We should also be aware that the widely used EGRA tool itself has been criticized by experts because of the narrow and potentially biased conception of reading and language development as well as the rigid testing format, which is often not adapted to local learning contexts. Reading performance can be further disaggregated into test items to better understand how girls and boys respond to different types of assessment questions. Research indicates that constructed response questions require "not only receptive but also productive language skills," whereas multiple choice questions do not (Schwabe, McElvany, & Trendtel, 2015). Girls tend to possess superior constructive language skills, which indicates that reading assessment construction is a gendered landscape (Schwabe et al., 2015). Moreover, who gets assessed, what gets tested, when tests occur, and how and why a test takes place are all contested issues in assessment research (Wagner, 2011). Finally, critics of the EGRA argue that the assessment is a form of "linguistic and pedagogical imperialism," reflecting unequal power structures in global educational governance between donors and recipients (Sørensen, 2015, p. 7).

Ultimately, we draw the conclusion from varying and sometimes contradictory recommendations from EGRA case studies that disaggregating data collection by indicative factors—including but not limited to gender—is key to understanding how to improve students' performance. The data points we have presented to situate this chapter within the current discourse on gender and reading assessment are only pieces of a larger puzzle and need to be considered through scholarship to design solutions to gender-driven inequality in reading achievement within particular context, a building block without which future learning is limited. Moreover, we support the hypothesis, as research suggests, that the focus on girls' education, despite boys' underperformance, is still appropriate, as poor academic achievement for boys does not necessarily predict limitations in economic or political life in the way that it often does for girls (USAID, 2016, p. 17). While feminist scholars and social scientists alike have contributed to the body of research on gender parity, equity, and equality, there is a dearth of research on the gender gap in reading in

relation to male and female teachers' attitudes, especially classroom practices,[5] to promote the skills of early grade learners and foster a reading culture, especially in the global south.

Pakistan's EGRA Results

In 2017, Management Systems International (MSI), a USAID evaluation contractor, conducted an EGRA with over 45,000 grade 3 and 5 students in the provinces and territories in which PRP is implemented: Azad Jammu & Kashmir (AJK), Balochistan, Federally Administered Tribal Areas (FATA), Gilgit Baltistan (GB), Islamabad Capital Territory (ICT), Khyber Pakhtunkhwa (KP), and Sindh (i.e., all provinces except Punjab). The 2017 midline assessment followed MSI's nationwide baseline assessment in 2013, prior to the start of PRP implementation. USAID may plan to conduct the end-line assessment for PRP in 2020. We recognize that this study will not reflect the full cycle of EGRA data and will thus draw provisionary conclusions. However, PRP has a robust Monitoring and Evaluation (M&E) process, which includes Teacher Inquiry Groups (TIGs), classroom observations, and a student performance tracking and assessment system, which all continuously inform the intervention's approach. Nevertheless, EGRA provides a strong basis for this study, by building on disaggregated scores of boys and girls and further exploring them in the context of learners' and teachers' gendered practices and perceptions.

The findings of the baseline and midline EGRAs reveal differing trends across provinces (Table 6.1). In AJK and Balochistan, girls' mean oral reading fluency (ORF) scores were higher than boys'; in GB, girls' mean ORF scores increased significantly between 2013 and 2017 in both grade 3 and 5, while boys' mean scores did not change significantly. In ICT, girls performed better than boys in ORF in grade 3 only, but the differences between the two groups decreased. In KP, girls outperformed boys in both grades, and the results remained consistent from the baseline to the midline. FATA is the only region where in grades 3 and 5,

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[5] The authors define 'classroom practices' as the ways in which the teacher uses the materials, interacts with the physical classroom and its occupants (students), which includes management of the classroom (e.g. discipline, calling on students, engaging and facilitating active participation, designing the seating chart).

Table 6.1 Mean oral reading fluency (ORF) score

Region	Grade 3	Grade 3	Grade 5	Grade 5	Grade 3	Grade 3	Grade 5	Grade 5
	Baseline 2013		Midline 2017		Baseline 2013		Midline 2017	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
AJK	25	31	40	45	66	87	64	90
Balochistan	26.8	33.1	34.4	37.3	71	75.3	71.3	80
FATA			36.8	20.4			74.2	52.1
GB	26.7	19.5	24.8	38.9	59.9	54	53.9	69.6
ICT	12.4	23.8	18.6	28.6	54.7	87.4	68.9	83.4
KP	27	38	50	61	58	84	63	86
Sindh	26.1	34.3	49.6	63.5	52.9	85.3	80.3	84.6

boys had significantly higher ORF scores, on average, than girls. Overall, when we look at the reading scores of girls and boys (baseline and midline), in most regions of Pakistan except FATA, girls outperform boys in reading performance.

In terms of narrowing the performance gap between genders, the EGRA showed that in AJK, GB, and KP, the gaps between girls' and boys' scores remained either steady or slightly increased between the baseline and midline in both grades. However, in Balochistan, the results are mixed; for instance, in grade 3, boys' and girls' mean scores increased between the baseline and midline, though the difference in mean scores narrowed. But in grade 5, the gap increased from the baseline to the midline, these differences, however, were not statistically significant. In ICT, the midline EGRA revealed a narrowing difference between boys and girls. However, in FATA, the gap between girls' and boys' reading scores significantly favors boys, especially in grade 5 where only 6% of boys were non-readers, whereas 20% of girls were non-readers. Moreover, among FATA grade 5 students, 49% of boys met or exceeded the performance standard, whereas only 23% of girls met or exceeded the performance standard.

METHODOLOGY

To assess the gendered practices of learners and teachers toward reading and learning, this study necessitated a multi-method approach. As mentioned in the introduction, the NGS involved a desk review,

gender analyses of secondary materials, project documents, and text-books, student and teacher surveys, field observations, focus group discussions (FGDs), and key informant interviews (KIIs). The study was conducted in the PRP-supported public schools across Pakistan, involving a large representative sample, in which researchers surveyed approximately 1600 students, observed and interviewed 54 teachers in depth, and spoke to more than 100 respondents such as parents, head teachers, community members, and educational policymakers through focus groups and informal interviews. While determining a represent-ative sample size for the study, the researchers realized that probability sampling might not yield adequate results. By using a stratified random sample design, in which the strata were defined by PRP's main focus on province, cohort, rural/urban and gender, the researchers drew the sample. In doing so, the study ensured representation of provinces, cohorts, and schools.

Among the 1600 students surveyed, an equal number of boys and girls were selected from grade 1 and 2 from 54 schools. To ensure valid-ity, schools were randomly selected according to two factors: (1) *rural* or *urban* location and (2) *co-ed* or *single-sex* population. Furthermore, the students were divided into three categories: *high*, *medium*, and *low* reading skills based on the teacher's assessment of the student's skills. The teachers were asked to identify students for interview on the basis of their reading skills. PRP-trained teachers regularly assess reading per-formance and were thus able to identify their students' reading skill lev-els. Once identified, the students were interviewed by field teams in the school setting with the intention of mitigating any anxiety and making it easier for them to respond to the questions. During this study, con-ducted in 2016–2017, the enumerators asked students about their reading habits, support at home, private tuitions, and socialization at school and at home, among a series of questions (Annex 6.1). To assess the differences in the classroom practices of male and female teachers, researchers used a classroom observation tool (Annex 6.2). We coded the data using SPSS for further analysis. We used both electronic and manual approaches for coding and generating the preliminary analysis, which also involved categorization of the qualitative responses given in interviews and FGDs. The process of analyzing data continued through-out the project reporting cycle, as we used the NGS findings for various reports and further research agendas. We also used parts of this data for this chapter, as previously discussed.

Limitations

To mitigate a potential limitation due to the sensitivity of external enumerators collecting data from young children, field teams requested teachers to provide initial moderation so that students were properly introduced to the data collection process. During training, field teams were also instructed on how to greet, familiarize, and talk with children and keep them comfortable during the interviews. Moreover, a perceived limitation pertains to the subjectivity of weighting students' reading skill determination. For example, a student from *rural* Balochistan with high reading ability may still have lower reading skills when compared to a student studying in an *urban* ICT school who, respectively, was identified as a medium-level reader. While this is an interesting observation that requires more study, the quantitative EGRA results are not subjective by locality. The main purpose of this chapter is not to focus heavily on how teachers perceive students' ability through inter-provincial comparisons but to concentrate on localized reading skill ability by gender to examine trends in national-level data.

FINDINGS

As discussed in the previous sections, several key factors may affect girls' and boys' reading skills; however, in this chapter, we investigate gender differences in *learners' practices* such as reading habits, learning support at home, private tuition, and student socialization. Subsequently, we explore gendered practices in the form of teaching and learning environment and exposure to violence and bullying. Finally, we discuss *teachers' classroom practices* through the use of teaching and learning materials.

Reading Habits

Reading habits are affected by certain factors, such as frequency and interest, which characterize a child's reading behavior. Reading habits have a positive correlation with learning abilities, as reading helps learners to obtain knowledge and develop critical thinking skills. According to Shafi and Loan (2010), gender greatly impacts students' reading habits, with girls typically performing better than boys in reading.

The study's findings support the literature, which indicates that a higher number of girls (68%) read every day compared to boys (58%)

Fig. 6.1 Children who
read every day (national)
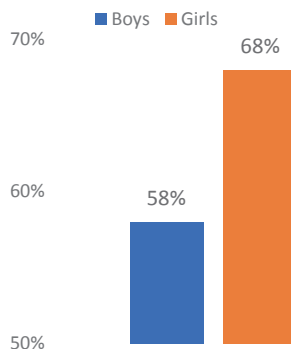
(Fig. 6.1). Regional figures reflect a similar trend, with a higher percentage of girls reading every day across all regions (Fig. 6.2). Cross-national analysis shows that students who read every day possess higher reading skills. However, although girls were recorded reading more frequently, other structural barriers to reading skill acquisition may also contribute to the net lower percentage of girls, as compared to boys, with medium-to-high reading skills.

Research also suggests that a significant factor in boys' underperformance in school originates with teachers' gendered perceptions of boys' achievement (USAID, 2016, p. 20). In many contexts, teachers assume that boys will not perform well, which discourages participation and interest. According to a Subject Specialist at the Board of Curriculum and Extension Centre in Balochistan, "boys are less motivated" and teachers should realize this and work to motivate them (USAID, 2017, p. 26). Teachers also reinforce harmful gender norms in the classroom by expecting girls and boys to have different learning abilities, thus creating a self-fulfilling prophecy. Under the NGS, when enumerators asked teachers whether girls or boys are better readers, the majority of male and female teachers said that girls perform better. The main reason they offered is that boys spend more time outside the house, while girls stay at home and pay more attention to their studies. We also hypothesized that time spent on playing and domestic chores had a negative correlation with reading skills, which especially impacted boys.

Finally, 85% of the girl students reported that they worked at home either before or after school compared to 50% of boys. However, regional variations show interesting results in the work boys and girls
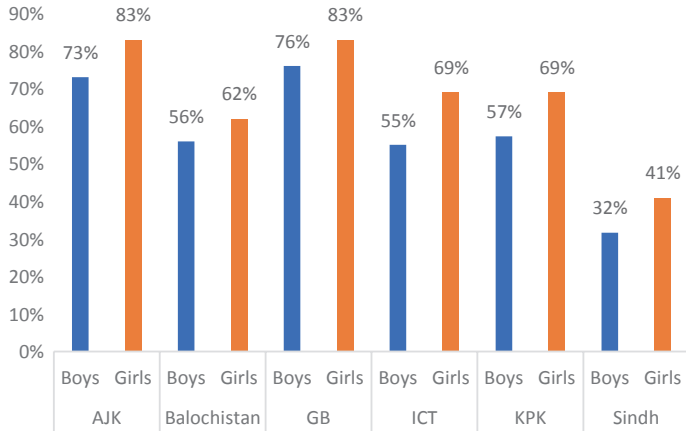
Fig. 6.2 Children who read every day (by region)

are assigned. For example, in GB and Sindh, boys were expected to be involved in household chores and farm work, which gave them less time to focus on their studies, indicating the rural-urban divide. Moreover, boys spent more time (on average 4 hours compared to 1–2 hours by girls) outside home playing which, coupled with restrictions on girls' movement outside the household, perhaps helped girls focus on their studies, thereby allowing girls to improve their reading skills and outperform boys.

Teaching and Learning Support at Home

According to teachers interviewed in the study, the most important factors that contribute to a child's learning are the school and home environment and parental engagement. Ninety percent of the teachers, both male and female, interviewed said that parental positive engagement, which includes reading at home, monitoring performance, motivating, interacting with teachers and school management, and parents' level of education, is more important than the other factors in improving reading skills.

In addition to the findings from the survey, which showed a significant relationship between the level of parental involvement in children's academic activities in the school environment and the level of academic

achievement of children, reading instruction by parents in the home environment had a significant impact on reading abilities (Fig. 6.3). A higher percentage of students who were taught at home by their parents in addition to attending school displayed higher reading skills, especially for boys with a 4% difference in the higher reading skills group. In terms of engagement with schools, data from the field collected through surveys indicated that parents of female students were more engaged with schools in all regions except for Sindh. We know from research that parents' engagement in their children's schooling is not one-dimensional (Fan & Williams, 2010). Parents' general interest and engagement in school-led activities demonstrate, at a very basic level, commitment to their children's education and accountability for performance (ibid.).

Findings from the field study showed that teachers reported that parents with lower levels of education usually did not monitor their children's education or were unable to support their learning at home. This was especially true in GB and Sindh where parents belonged to the farming community, and in ICT, where they held full-time employment and could not adequately engage with their children's teachers. FGD with parents also showed that parents of children with high reading skills followed up more frequently with teachers than those of children with low readings skills. For example, one mother of a child with high reading skills reflected in an interview, "I regularly attend parent-teacher meetings and often visit and meet teachers to discuss my child's progress." In addition, the parents of high-performing children who were uneducated or had little education noted that they still spent time with their children
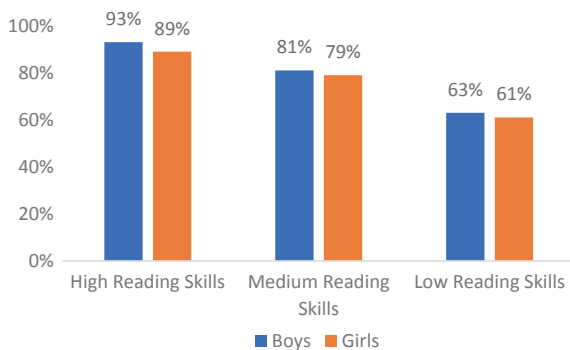
Fig. 6.3 Children taught by parents at home

on a regular basis when they were studying. Improving boys' reading skills through this method points to increased parental engagement at home and with teachers.

Private Tuition (Tutoring)

Survey evidence reveals a growing prevalence of children receiving private tuitions in Pakistan, with approximately 11% in rural areas and 54% in urban areas (ASER, 2012). While findings vary on the correlation between private tuition and students' academic achievement, Khan and Shaikh (2013) noted that primary level students in public schools benefit from tuition as supplementary support.[6] Several studies have also concluded that after-school tuition in early grade reading has made the largest impact in improving struggling readers' performance (Morris, Tyner, & Perney, 2000; Rabiner, Malone, & Conduct Problems Prevention Research Group, 2004). We agree, like critics of private tuition,[7] that student motivation, tutor quality, and time spent on tuition all contribute to its efficacy, and thus without data on these factors, we will not make broad generalizations outside of the limitations of our dataset. Here we concentrate more on access to tuition by all genders. The NGS findings show that cross-regionally, a greater percentage of girls receive private tuition than do boys (Figs. 6.4 and 6.5). Further cross-analysis supports the claim that, in Pakistan, supplementary educational support at home, like but not limited to private tuition, contributes toward children's ability to read well. Data collected through the NGS shows that boys and girls receiving tuition at home have higher reading skills than those not privately tutored.

Moreover, findings also support the fact that students who attend *madrasah*[8] or read Quran at home have better reading skills, which can be considered as an additional exposure to language and reading skill acquisition, as Arabic and Urdu language texts and letters contain

[6]We clarify that the rise of private tuition or education's "shadow sector" in Pakistan should not detract from reforming public sector education services, nor should its potential effect on exacerbating economic inequality be ignored (Aslam & Mansoor, 2011).

[7]Tse, S. K. (2014). To what extent does Hong Kong primary school students' Chinese reading comprehension benefit from after-school private tuition? *Asia Pacific Education Review, 15*(2), 283–297.

[8]School/institution for religious education.
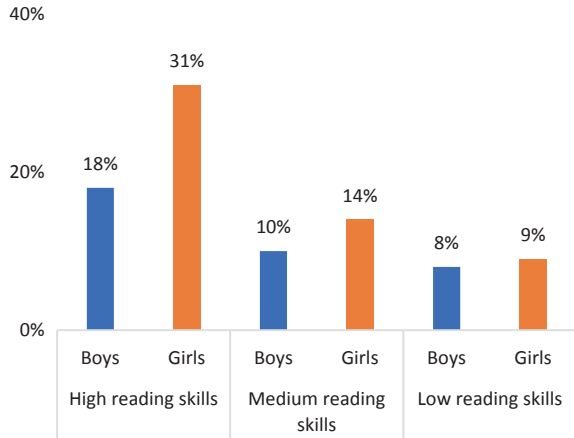
Fig. 6.4   Private tuition and reading skills (by gender)
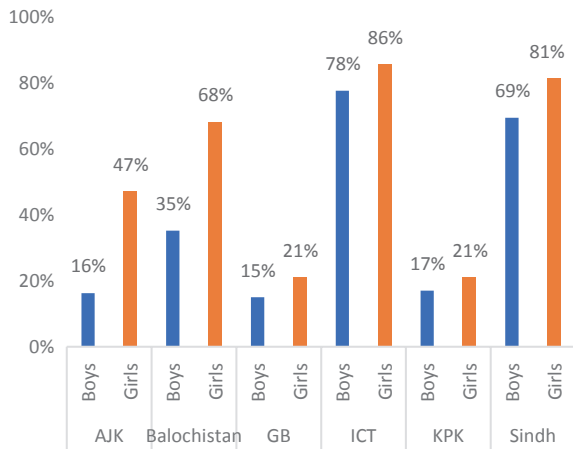
Fig. 6.5   Children receiving tuition at home (by region)

similarities. This finding requires additional research but indicates that cost-restrictive private tuition may not be the only avenue through which to receive additional support for reading, as *madrasahs* often attract families with lower socioeconomic statuses in both urban and rural areas.
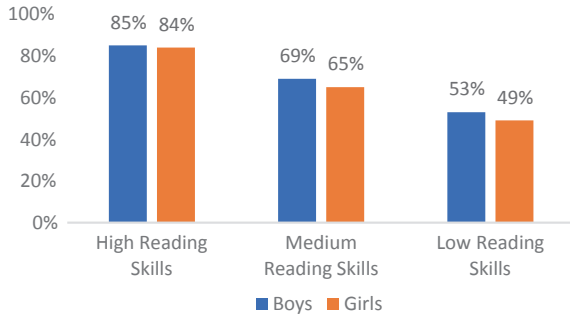
**Fig. 6.6** Children with friends at home/in neighborhood
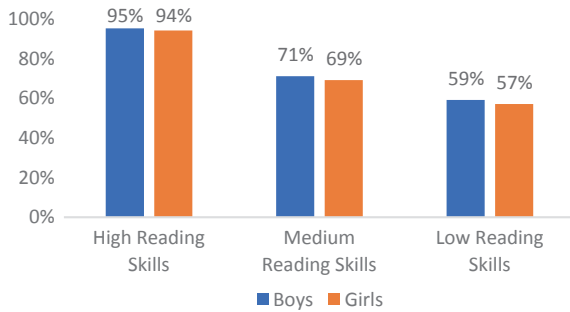
Fig. 6.7 Children with friends at school

Student Socialization

While many indicators, like exposure to violence, which we discuss later in this chapter, can harm cognitive development and correlate to decreased academic success, the NGS found a positive correlation between reading skill level and the existence of a positive social network. The results of this study indicate that children with higher reading skills often have more friends at home, in their neighborhood, and at school. This factor is slightly more significant for boys than girls (Figs. 6.6 and 6.7).

The literature review also revealed that students with positive self-concept or confidence often have high academic performance (Ahmad, Zeb, Ullah, & Ali, 2013). Therefore, it is imperative that
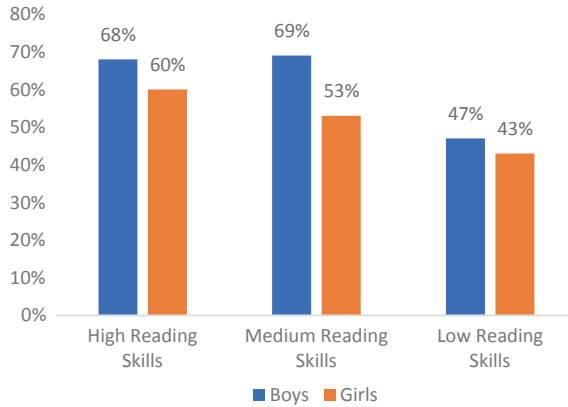
Fig. 6.8 Children who participate in classroom activities

teachers encourage and respect students throughout the teaching-learning process. Findings from the NGS student survey showed that a higher percentage of students who perceived that they were allowed the opportunity to speak and participate in classroom activities also displayed higher reading skills. This was a more common observation for boys than girls (Figs. 6.8 and 6.9).

However, in interpreting this information, we note the possibility that children with better reading skills might actually be given more opportunities to speak or participate in classroom activities. Furthermore, the study did not investigate the practices of male and female teachers in giving students the opportunity to speak and participate in class with respect to respective reading ability. It is recommended that further research be undertaken to determine the strength of this indicator in reading outcomes.

Teaching and Learning Environment

Teaching practices and the learning environment are key factors influencing children's ability to learn.[9] The literature shows the effects of quality teaching begins in primary education (Hochweber & Vieluf, 2018). Trained and competent teachers who are committed to developing

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[9] For the purpose of this study, "learning environment" has been defined as the students' school/classroom and home.

Fig. 6.9 Children who feel they are given an opportunity to speak in class
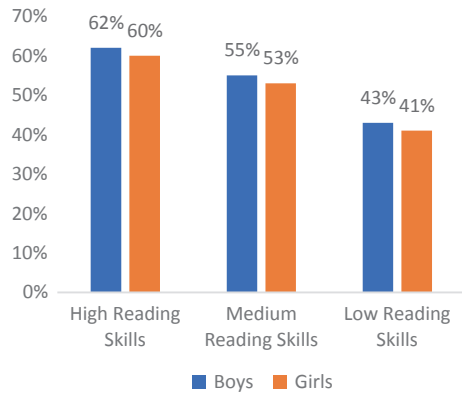
evidence-based pedagogical skills are a key variable in shaping reading skills in children, especially in motivating boys to read. Research suggests that boys are more affected by the quality of teaching due to the lack of reinforcement at home, as explained in the previous section (Hochweber & Vieluf, 2018). The largest percentage of students in the study sample were taught by teachers with 8–11 years of experience (40%), and those students had the best reading scores among all categories of teacher experience. The differences in scores were significant for students of teachers who had 8–11 years of experience relative to 4–7 years of experience and 12–25 years of experience. The study also found that perceptions of female teachers included characteristics indicating more commitment and responsibility. One male senior staff member in the federal Education Department stated that "female teachers are more devoted and engage fully more often with students. Male teachers have their side businesses besides teaching; they are not as committed as female teachers." However, teachers from a higher number of girls' schools across all regions claimed they had been trained in gender-sensitive pedagogical techniques,[10] with the highest numbers from ICT. The quality of the training that these teachers claimed to have received was not clear. What is more apparent, however, is that more female teachers (57%) treat boys and girls more equally than their male counterparts (45%) as observed during classroom observations. Research

[10] Reported receiving trainings on gender sensitivity, supporting minority, disabled and diverse-background children in the classroom, and promoting gender-inclusive classroom environments.

supports the linkage of equity and quality education, noting that it increases achievement for boys without reducing girls' gains (Hochweber & Vieluf, 2018).

Like teaching practices, gender also impacts the distribution of public funds and attitudes about the value of education. In addition to quality teaching as an important factor for reading achievement, a supportive learning environment and facilities[11] are necessary for student engagement. In the study sample, most students attended schools with electricity, clean drinking water, and toilets. Less than one-third of students went to schools with libraries, and less than one-sixth went to schools with separate toilets for girls. Schools without electricity, clean drinking water, and toilets were mainly girls' schools. What was more apparent was, despite lacking basic resources, researchers' field observations noted that girls' schools often provided a more engaging learning environment with educational pictures, charts, posters, or flash cards displayed on walls; whereas boys' schools and mixed schools often lacked engaging classrooms across all regions. During classroom observation also it was noted that girls' schools were more likely to have supportive structures, such as established learning corners, learning material of various kinds displayed in class, teacher trainings, and other mechanisms to ensure that students with low, medium, and high reading skills were all able to learn. Boys' schools did not display the same supportive environments, except for in ICT, where boys' school environments appeared equally engaging. Overall, the field observations suggest that gender equity in creating supportive learning environments in schools may improve learning outcomes for boys.

Exposure to Violence at School and Home

Bullying, or victimization in the school environment, can take several different forms, but for the sake of this study, we have only considered *direct* and *indirect* bullying. Direct bullying refers to aggression in the form of physical violence or verbal abuse (i.e. name calling), whereas indirect or relational bullying refers to the act of one or more students ostracizing or purposefully excluding another student with the intent to cause harm (i.e. spreading rumors) (Woods & Wolke, 2004).

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[11] This includes electricity, drinking water, a boundary wall, and a library.

Various studies indicate that children who are bullied by their peers are unhappy, have greater difficulty making friends, present health and educational problems, and exhibit internalizing behaviors, such as anxiety and depression, than their non-bullied peers (UNESCO & UN Women, 2016).

The surveyed students were asked about bullying and punishments incidences at home and school across provinces to determine gendered patterns of bullying practices and investigate the correlation between bullying and reading skills. An analysis of the data shows that a higher percentage of boys (43%) are bullied at school than girls (29%). In addition to the presentation of more male bullying victims, Fig. 6.10 illustrates a correlation between victimization at school and lower reading skills. This national trend was repeated at the provincial level. The team found the highest percentage of boys were bullied in Sindh (65%) followed by GB (57%) and Balochistan (38%). Given that boys consistently lag behind girls in reading achievement (apart from in FATA), the gendered prevalence of bullying compounds the disadvantage to boys in school.

In addition to bullying, our research also explored corporal punishment in girls' and boys' schools to understand its gender dynamic. The Prohibition of Corporal Punishment Bill, which was presented to the Pakistan National Assembly in 2014, defines corporal punishment as:

> Any punishment in which **physical force is used and intended to cause some degree of pain or discomfort, however light it may be**, which may involve hitting (smacking, slapping, spanking) a child, with the hand or implement (a whip, belt, shoe, wooden spoon, etc.) including kicking, shaking, or throwing a child, scratching, pinching, biting, pulling hair or

Fig. 6.10 Bullying at school and reading skills (by gender)
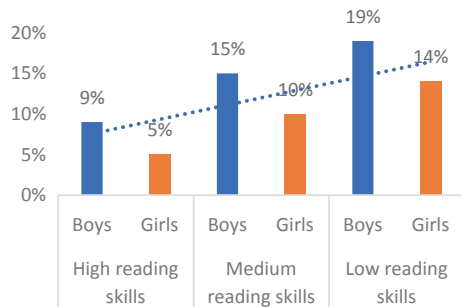
Fig. 6.11 Corporal punishment in schools (national)
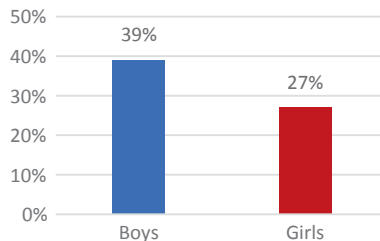
boxing ears, forcing a child to stay in an uncomfortable position, burning, scolding or forced ingestion…**[Including] other non-physical forms of punishment which are cruel and degrading**; for example, punishment which belittles, humiliates, denigrates, threatens, scares or ridicules the child.[12]

In Pakistan, corporal punishment is not uncommon in schools, but policies at the national and provincial levels, such as the policy highlighted above, have strengthened efforts to enforce its prohibition. Free and Compulsory Education Acts in several provinces have included clauses prohibiting corporal punishment in schools, but adoption and enforcement of these policies has not yet been universal. ICT and Sindh provinces have explicitly prohibited corporal punishment in schools; however, other provinces have yet to take definitive measures to codify its prohibition (Global Initiative to End All Corporal Punishment of Children, 2018).

Like bullying, the survey findings reported that boys are more likely than girls to experience corporal punishment. For example, in a national survey of schools, 39% of boys reported receiving corporal punishment compared to 27% of girls (Fig. 6.11). This trend is also reflected at the provincial level (Fig. 6.12). In addition, the survey showed a correlation between lower reading skills and incidence of corporal punishment. For example, only 7% of boys who reported corporal punishment had high reading skills. Girls who experienced corporal punishment also had lower recorded reading skills. However, qualitative data also supports the notion that boys are more likely to be punished than girls due to existing gender norms legitimizing more violent practices in boys' schools, where boys are mainly taught by male teachers. Corporal punishment is indeed

[12]Corporal Punishment Act. (2014). *National Assembly of Pakistan*. Retrieved from www.na.gov.pk/uploads/documents/1397730810_455.pdf.
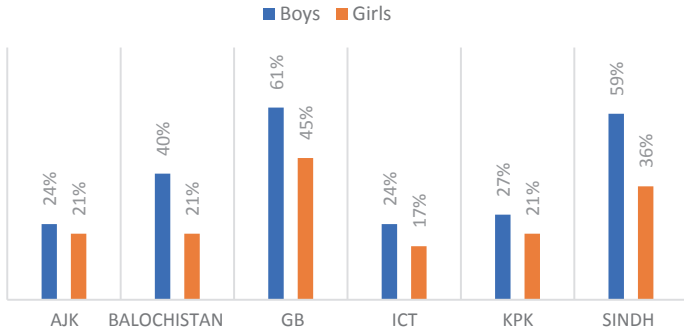
Fig. 6.12 Corporal punishment in schools (by region)

a form of gender-based violence, as it correlates to gender norms that reinforce a particularly violent masculinity.

Corporal punishment is not isolated to the school environment, but also pervades the home and other child care settings. The findings of the survey at the national level indicate that, even at home, boys (41%) are more often punished than girls (26%). The regional disaggregation indicates that the highest percentage of corporal punishment in the home toward boys was reported in Sindh (74%) and lowest in KPK (21%). The percentage of girls experiencing corporal punishment at home was lower than boys in all regions. Indicative of the correlation between violence and poor academic performance, the study indicated a correlation between high rates of punishment at home and lower reading skills. The data showed this correlation was most notable for boys. The trend was comparable for girls but with lower overall percentages in each category (Fig. 6.13). We find the gender difference in the prevalence of corporal punishment particularly interesting, in part, because violence against women in Pakistan is common. Studies show that corporal punishment as gender-based violence is manifested differently depending on the child's gender (Barker & Nascimento, 2010). We hypothesize that children in this age group perhaps report physical violence more than non-physical or psychological forms of violence, hence more boys report experiencing violence in schools and at home than do girls. Nevertheless, the data collected from the NGS allowed us to draw the conclusion that reported corporal punishment in Pakistan disproportionately affects boys, and correlates to children's diminished ability to acquire reading skills.
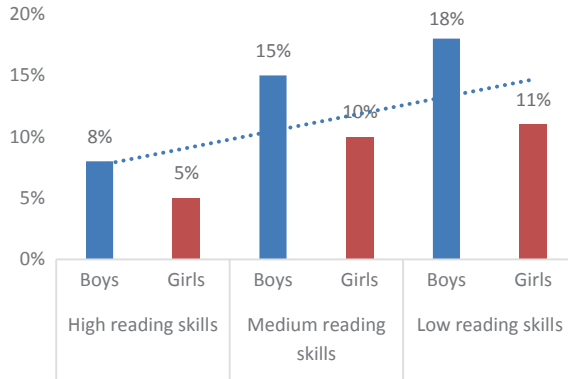
Fig. 6.13   Punishment at home and reading skills (by gender)

Use of Teaching and Learning Materials

Leu and Price-Rom (2006)'s literature review on *Quality of Education and Teacher Learning* emphasizes the importance of defining *quality* through the lens of education reform, particularly as a relational concept and a measurement tool. We further emphasize that quality education includes an adequate quantity of learning materials. Gender equality is a critical element of both the production and use of quality materials, as quality materials are accessible to all learners with consistent application. In conjunction with quality teaching, guided lesson plans and age-appropriate, gender-sensitive learning materials comprise a strong foundation for learning to read. Learning materials with gender bias contribute to the implicit or so-called "hidden curriculum," which perpetuates harmful gender norms and stereotypes (Leu & Price-Rom, 2006). PRP has developed, in addition to reading materials, teachers' daily lesson plans, flash cards, reading games, and toolkits for the classroom. The PRP-developed materials underwent a gender sensitivity review prior to distribution, focusing on equal representation and equitable and transformative gender roles in text and illustrations.

The NGS conducted an in-depth gender analysis[13] of PRP-developed materials and government textbooks in use during the study period,

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[13] Analyses included gender representations in content, illustrations, leading and supporting roles (also covering minorities and people with disabilities), and language choice.

which revealed substantive gender biases in the textbooks across all evaluation criteria (Fig. 6.14).

As curriculum is an important medium for transmitting ideas and can greatly influence a child's concept of gender roles and norms, learning materials can impact children's self-image, behavior, aspirations, and expectations. Specifically, if female characters are only shown in traditional, gender normative roles and never in leadership roles, girls may have a difficult time imagining themselves as strong characters in their own lives. Likewise, male characters shown in equal and respectful interactions with female characters can provide a counterargument for stereotypes and negative social norms that boys regularly encounter (USAID, 2016). Moreover, quality teaching materials that elevate gender equity and inclusion are important complements to learning materials, if teachers receive training on their appropriate use. Overall, NGS findings revealed that PRP has developed far more inclusive teaching and learning materials than the existing government textbooks. The content and illustrations of PRP materials clearly depict a balance in gender representation. There are also multiple stories that feature women in leadership, minorities, and people with disabilities.

To further investigate the gendered practices of male and female teachers in terms of their use of PRP-provided materials in the classroom, we used a classroom observation guide (Annex 6.2). The study found that overall, female teachers used the PRP-developed flash cards, alphabet charts, posters, tablets, and other learning tools significantly more than their male counterparts (Table 6.2). Both male and female teachers used the daily scripted lesson plans for reading most of the time (95 and 92%, respectively). Related to the previous section on the

Fig. 6.14 Government textbooks compared to PRP-developed textbooks

LEADING ROLES BY GENDER GRADE
1 and 2 TEXTBOOKS (GOVT AND PRP)

■ Male ■ Female

	Male	Female
PRP	50%	50%
BALOCHISTAN	88%	13%
ICT	73%	27%
KP	73%	27%
SINDH	67%	33%
GB	64%	36%
AJK	58%	42%
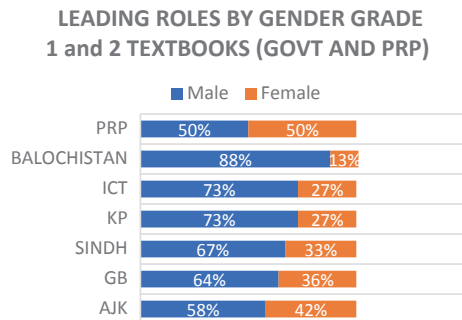
Table 6.2   Use of PRP-developed materials

Use of materials	Male teachers (%)	Female teachers (%)
Teacher has lesson plans	95	92
Flash/cards use in class room	76	95
Alphabet charts use	74	92
Tablet use	69	51
Materials on wall	71	89
Give time for practice	67	80
Display students made materials	40	73

importance of student self-confidence in learning outcomes, we found the significant gender gap for teachers displaying their students' materials intriguing, as male teachers only displayed their students' work in 40% of instances, while female teachers displayed it in 73%. While the gender breakdown of students whose work was displayed was not recorded, the gap between male and female teachers in displaying materials in the classroom (both student-made and PRP-developed) leads us to question how gender norms produce different classroom practices. However, as findings showed that both genders exhibited differences in the use of materials, factors other than use of materials could be affecting learners' outcomes. Recalling the evidence cited previously on the learning environment in girls' and boys' schools, this presents a topic for future research.

Conclusions

While researchers have examined the gender gap in multiple components of education systems, few studies exist on the complementary or compounding effects of multiple reading performance indicators intersecting with gender.[14] The PRP-led NGS examined several factors affecting girls' and boys' reading skills, such as reading habits, learning at home, private tuition, student socialization, teaching and learning environment,

[14] Babbitt Bray, G., & Barron, S. (2004). Assessing reading comprehension: The effects of text-based interest, gender, and ability. *Educational Assessment, 9*(3–4), 107–128.
  Brown, B. W. (1991). How gender and socioeconomic status affect reading and mathematics achievement. *Economics of Education Review, 10*(4), 343–357.

exposure to violence and bullying, and the use of teaching and learning materials. Through cross-sectional analysis, we have suggested which areas of improvement might be prioritized to maximize the benefits of an intervention for all learners and teachers, namely teachers' attitudes toward students, parental support, quality (gender-sensitive) materials, and the elimination of corporal punishment. The study revealed that overall, boys lag behind girls in reading performance. We suggest that this correlates to other gendered attitudes, as the study revealed that boys form weaker reading habits, are less likely to receive private tuition and other forms of after-school educational support, experience more violence at school and at home, and receive fewer social incentives to achieve academically. It is also important to note that each context—even within the same country—can vary greatly and may not conform to the general trend, so adopting a sub-national or regional approach to data analysis is key to evidence-based reading interventions.

The findings also indicate that poor performers tend to be socioeconomically disadvantaged and have parents with limited resources, such as time and additional support for schoolwork. However, as we have illustrated, other factors related to students' and parents' practices toward reading also affect the probability of low/high performance among and across genders. Negotiating gender norms is a nuanced and long-term commitment which quality teaching and learning materials alone cannot sufficiently address. Practices and attitudes fostered outside of the classroom environment significantly impact, and can even predict, the academic success of children, and thus, their future opportunities.

Quality teaching is also a gender-nuanced indicator. The study found that the learning environment, fostered by the teacher, contributes to students' academic success. The research indicated that female teachers in PRP schools were more cognizant of creating a learning environment, which supported the development of reading skills, than their male counterparts. The NGS observed that girls' schools tend to provide more engaging learning environments, though the impact on reading performance requires more research. Classroom management and an understanding of gender-sensitive teaching materials also factored into girls' and boys' perceived self-confidence, which correlates to improved reading outcomes. The research found that female teachers engage comparatively more often with girl students than boys and provide greater resources in terms of time, reading material use, peer and parental

engagement, and creative work in the classroom, all of which correlates to higher reading performance outcomes.

In our interrogation of the gender gap in reading in Pakistan through a multi-method, large sample study, we have highlighted critical areas for attention in early grade reading interventions. In Pakistan, early grade students follow much the same trend as students in other developing countries where boys underperform in reading. The indicators associated with improved reading performance are not inherently gendered, but rather gender inequity in access, quality, and support precludes positive outputs for boys. Focusing on closing the gender gap by improving reading achievement for boys does not disadvantage girls, as the literature has shown no reduction in gains for girls while improving boys' performance (USAID, 2016). Examining multiple, intersecting factors in reading achievement allows for a discursive and institutional approach to creating a truly gender equitable early grade reading program and provides a model for contextualization in other settings.

ANNEXES: EXCERPT FROM QUESTIONNAIRE GUIDE AND OBSERVATION

Annex 6.1: Interview questionnaire with students (boys/girls)

Name of respondent	
Gender	
Age	
Grade	
School	
Reading Ability	1. High
	2. Medium
	3. Low
Mother tongue of the child	
Language spoken at home	
Religion of the child if possible, (as we need to understand if more poor readers belong to minority groups)	
Permanent Address (Village/Union Council/City Name)	
Taluka and district	
Division	
GPS	

Name of respondent	
Contact details of parents	Telephone Numbers: Land line _____ Mobile _____ Email Address: _____
Consent obtained	1. Yes 2. No
Name of Interviewer	
Date of interview	
Time of interview	Start time _____ End time _____

Section I: Family background and home environment

What is your parents' occupation?	**Father**	**Mother**
	1. Government servant; army, civil servant, police, etc. 2. Farmer 3. Laborer/daily wage worker 4. Unemployed 5. Self-employed; shop or business owner, etc. 6. Other	1. Government servant army, civil servant, police, etc. 2. Farmer 3. Laborer/daily wage 4. Self-employed; shop or business owner, etc. 5. House wife 6. Other

Punishment at home	**Scolding**	**Punishment**
Do you get scolded and/or punished at home?	1. Yes 2. No	1. Yes 2. No
If yes, by whom?	1. Grandmother 2. Grandfather 3. Mother 4. Father 5. Aunt 6. Uncle 7. Sister 8. Brother 9. Other (please specify)	1. Grandmother 2. Grandfather 3. Mother 4. Father 5. Aunt 6. Uncle 7. Sister 8. Brother 9. Other (please specify)

How often you are scolded/pun-ished in the past month?	1. Never	1. Never
	2. A few times	2. A few times
	3. A lot of times	3. A lot of times
	4. Others (please specify)	4. Others (please specify)
When were you scolded/punished last time?	1. Never	1. Never
	2. A few days ago	2. A few days ago
	3. Some time ago	3. Some time ago
	4. A long time ago	4. A long time ago
	5. I do not remember	5. I do not remember
	6. Others (please specify)	6. Others (please specify)

Bullying and punishment in schools

Do you get bullied/punished at school?	**Punishment**	**Bullying**
	1. Yes	1. Yes
	2. No	2. No
If yes, by whom?	• Teachers	• Teachers
	• Head teachers	• Head teachers
	• School staff	• School staff
	• Students	• Students
	• Others	• Others
How often you are bullied/punished?	• Never	• Never
	• Daily	• Daily
	• A few days ago	• A few days ago
	• A long time ago	• A long time ago
	• I do not remember	• I do not remember
	• Others (please specify)	• Others (please specify)

Section III: Socialization

Do you have any friends?	**At Home and/or Neighborhood**	**At school**
	1. Yes	1. Yes
	2. No	2. No
What activities do you indulge in during your free time?	• Participating in or watch-ing sports	• Participating in or watch-ing sports
	• Watching television	• Reading a good book
	• Reading a good book	• Being with my friends
	• Being with my friends	• Others
	• Others	
How much time do you spend in playing outside with your friends?	• None	• None
	• 1–2 H	• 1–2 H
	• 2–4 H	• 2–4 H
	• 4+ H	• 4+ H
Do you work at home/farm house?	• Yes	• Yes
	• No	• No

What kind of work you perform?		
How much time do you spend doing household chores?	• None • 1–2 H • 2–4 H • 4+ H	• None • 1–2 H • 2–4 H • 4+ H

Section IV: Reading aptitude and environment

Do you like reading?	1. I love reading 2. I like to read sometimes 3. I don't like reading very much
If yes, what do you enjoy about it?	1. Learning new things 2. Reading the stories 3. The colorful illustrations/pictures 4. I don't know 5. Others
If no, why don't you like it?	1. I find it difficult to read 2. I find it difficult to understand 3. I find it boring/uninteresting 4. Others
How often you read books?	• Never • Daily • Weekly • Often • Very often
How much time do you spend reading? (in minutes)	
Do your parents encourage you to read?	1. Yes 2. Somewhat 3. No
Who read for/with you at home?	1. Father 2. Mother 3. Other (specify)
What type of books do you like to read?	1. Animal stories 2. Biographies; Quaid- i-Azam, Allama Iqbal, etc. 3. Poetry 4. Humorous 5. History 6. Religion/Islam 7. Mysteries 8. Ghost stories 9. Adventure stories 10. Fantasy/Magical stories 11. Other

Do you have library in your class/school/ community?	1. Yes
	2. No
Do you like going to the library?	1. Yes
	2. Somewhat
	3. No
Do you have a tutor to help you study at home?	1. Yes
	2. No
What subjects does he/she teach you?	1. English
	2. Urdu
	3. Maths
	4. Science/General knowledge/ Social studies
	5. All above
	6. Other (specify)
How many days a week does the tutor come to teach you?	1. Once
	2. Twice
	3. Thrice
	4. Four
	5. Five
	6. Six
	7. Seven
Do you read Quran? And where?	• Yes Where? At home/madrassah/ others
	• No

Section V: School life

Do teachers organize students for group activities so that you can work together?	1. Not at all
	2. A little
	3. Quite a lot
	4. Very much
Do you feel you have the opportunity to speak, and be listened to, in class?	1. Not at all
	2. A little
	3. Quite a lot
	4. Very much
Do you feel you are provided with opportunities to engage in physical activity as a recreational choice?	1. Not at all
	2. A little
	3. Quite a lot
	4. Very much
Do you often participate in the class (talking with the teacher and classmates, and going to the board)?	1. Not at all
	2. A little
	3. Quite a lot
	4. Very much

Annex 6.2: Observation guide

School/classroom observation	Response	Comments (if any)
1. Does the school have boundary wall	✓ Yes ✓ No	
2. Does the school have clean drinking water?	✓ Yes ✓ No	
3. Does the school have electricity?	✓ Yes ✓ No	
4. Does the school have toilet?	✓ Yes ✓ No	
5. Does the mix school have separate toilet for girls and boys?	✓ Yes ✓ No	
6. Does the school have library/reading corner/s?	✓ Yes ✓ No	
7. Does the teacher begin and end the class on time?	✓ Yes ✓ No	
8. Does each student have textbook?	✓ Yes ✓ No	
9. Does the teacher have the PRP daily reading lesson plan?	✓ Yes ✓ No	
10. Are the big books present in the classroom?	✓ Yes ✓ No	
11. Is the alphabet chart displayed in the classroom?	✓ Yes ✓ No	
12. Are teacher-made literacy materials on the walls?	✓ Yes ✓ No	
13. Are student-made materials on the walls?	✓ Yes ✓ No	
14. Are teachers using the tablets?	✓ Yes ✓ No	
15. The teacher uses a variety of questioning techniques to engage the students	✓ Yes ✓ No	
16. The teacher gives the students time to practice	✓ Yes ✓ No	

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CHAPTER 7

Mapping Workflows and Perceptions of Delhi's Public School Teachers

Vincy Davis

I feel helpless and guilty for not being able to give full time to my students…makes me think what am I getting this salary for?

I feel like a clerk most of the time! (Accountability Initiative, 2019, p. 11)

These statements embody two powerful narratives that are emerging from public schools in India. The narratives are of teachers feeling increasingly overworked, and spending a disproportionate amount of time on "non-academic" activities, which cut into teaching time and affect their identity as teachers (Majumdar & Mooij, 2012; Ramachandran, Bhattacharjea, & Sheshagiri, 2008; Ramachandran et al., 2017).

Ramachandran et al. (2017) in their comprehensive study on teacher management in India concluded that the sheer range of responsibilities

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public school teachers have to juggle results in the creation of a "sub optimal" professional identity. Sankar and Linden (2014) recorded 916 public and private school teachers' time-on-task inside classrooms and their teaching-related perceptions, spanning the states of Andhra Pradesh, Madhya Pradesh, and Uttar Pradesh. Among many of its interesting findings, the study concluded that activities such as record maintenance and submission of information, and distribution of midday meal accounted for 20–25% of teachers' time per week. Public school teachers reported spending more time every week on such management activities than private school teachers.

In this study, teachers also reported teaching multiple classes at the same time (multigrade teaching), low parental interest in students' education, irregular attendance, lack of students' interest in studies, insufficient space to teach, and "assignment of non-teaching work" as the top hurdles which affected teaching.

The question of teacher practices and role-related perceptions become central to discussions on achieving learning outcomes since teachers have to ultimately deliver upon them. To probe these themes further, researchers at the Accountability Initiative (AI) Project[1] surveyed 200 teachers from 39 government-run schools in Delhi, between December 2017 and April 2018. The study specifically sought to address the following questions:

1. How much time were teachers allocating to school-related activities during and after school hours, and what were these activities?
2. How were teachers perceiving their official roles and responsibilities?
3. Which activities did teachers identify as "non-academic" and secondary to their role as teachers?
4. Were there variations in time allocation and role perception among teachers belonging to two different education managements?

The impetus to conduct this survey came from a parallel Delhi-based study, which required us to spend an extended period of time observing and interacting with school teachers from eight public schools. Our observations repeatedly showed teachers expressing feeling overwhelmed and overburdened due to a host of reasons. We felt it was important to probe this sentiment systematically since Delhi is a resource rich state where commonly noted issues, such as multigrade teaching, poor quality

or lacking infrastructure, and low teacher qualifications, are not as stark compared to rural schools. This Delhi based survey also stands out as a unique one since recent studies, which explore related themes, are set in other states and mostly in rural contexts.

In the following sections, I describe the study's sampling, methodology, and key findings. In the concluding section, I attempt to unpack the narratives of teachers reportedly feeling overburdened and disconnected from their core work, and briefly discuss possible ways to address the same.

SAMPLING AND DATA COLLECTION

Since Municipal Corporation of Delhi (MCD) and Directorate of Education (DoE) zones are not coterminous, schools managed by MCD were mapped on to the 13 education districts, as categorized by the DoE, for district and school sampling.[2] The final "map" consisted of 8 unique districts for sampling MCD schools and 5 unique districts for sampling DoE schools. For school sampling, school information was organized by districts in ascending order of student enrolment, with the three schools in the middle of each list shortlisted for the three rounds of data collection. The final school sample consisted of 39 schools with 24 MCD schools and 15 DoE schools, including 3 DoE Aided schools.[3]

Respondents were purposively sampled since a key objective of the study was to probe in depth how teachers handle various education-related responsibilities, inside and outside the school. Thus, the study findings are not statistically representative of Delhi teachers' behaviour and perceptions. The survey focused on the "busiest" teachers in schools, who were identified by the number of "additional charges" assigned to them.[4] Some common and demanding charges include managing the timetable and assigning teachers to classes in a daily activity called "teacher arrangement", midday meal, examination, and scholarship charges. These activities require maintaining multiple records and demands for these records are not always pre-planned. The survey tool consisted of two components. The first included a questionnaire with 39 closed and open-ended questions (see Appendix for the detailed perception survey questionnaire), designed to capture data on the following themes: perceptions around teaching as a profession; school-related issues; take on teaching-learning; "non-academic" tasks; and teacher performance. The second part of the survey included a "Time Allocation"

component designed to capture teachers' time use. The time use information was collected for all activities conducted by teachers on the day preceding the survey. A detailed protocol was developed for the study, which included definitions and categories of activities reported by teachers.

Shortlisted schools were formally informed about the survey by the DoE at the behest of the Delhi Protection for Commission of Child Rights, which funded the study. Schools were not informed of the day when the survey team was to visit them. Principals or Heads of Schools (HoS) and the respondent teachers were given a brief introduction about the objectives, ethics, and outcome of the survey prior to commencing the interviews.

While the tool itself was in English, the survey was administered in Hindi since teachers were more comfortable conversing in Hindi. All responses, including any explanations offered by the 200 respondents, were noted verbatim in the paper-based survey tool. Barring two questions, teachers were not provided with options or prompts. The explanations given by teachers were noted to code responses against preset options in the survey tool itself. This was used to verify coding and to retain nuance.

For the time allocation component, surveyors were trained to help teachers recall details of the preceding day in minute detail, including breaks and instances when they were multitasking. This data was recorded period-wise for DoE schools and in half hour slots for MCD schools.[5] A total of 1091 hours' worth of data was collected from 192 out of these 200 respondents.

Data was collected in three rounds—in December 2017 (a regular teaching month for schools), February 2018 (when we expected teaching to peak, right before the final exams), and April 2018 (when we expected time spent on administrative paperwork to peak due to new admissions).

Limitations

Due to time and resource constraints, time use data was collected via self-reporting method as opposed to participant observation. Self-reporting as a data collection method comes with the possibility of bias and exaggeration. However, during the pilot stage itself we found that giving an account for every period or half hour reduced the probability

of exaggeration. Further, brief discussions with the HoS were conducted after the surveys to broadly verify the activities of the day for which time use data was reported. Following every round of data collection, time use trends of teachers with similar additional charges were broadly analysed to check for consistency across schools.

Not all teachers could provide their time use account, either owing to paucity of time or being unable to confidently recall the previous day's minutiae. One teacher's time use account was removed from the final dataset as the respondent's report and the HoS' account did not match.

We had initially planned to survey minimum five teachers per school— teachers with the abovementioned charges and one subject teacher with no additional charge. We wanted to contrast the workflow of teachers with no additional charges with the other sampled teachers. But during the survey we found that not only did many of the sampled MCD schools had less than five teachers, almost all teachers had to manage multiple responsibilities. We had to forego this plan and instead decided to speak with few more teachers in DoE schools to maintain an average of 65 teachers per round.

Additionally, we planned to construct three weeks' workflow account (one week per each round of data collection) for selected teachers. This was to be used to create richer workflow accounts of select teachers, over a longer duration. This plan was also disbanded since the respondents who had initially agreed to partake in this exercise could not provide their daily accounts consistently.

School and Teacher Characteristics

The median student enrolment was 687 in the sampled DoE schools and 384 in the MCD schools. 195 female and 5 male teachers were surveyed. Table 7.1 summarizes the key features of the respondents.

Table 7.1 Teacher characteristics

School type	MCD	DoE
Total respondents	110	90
Educational qualification (Bachelor's degree and above)	93	90
Professional qualification (B.Ed. degree and above)	56	80
Average number of years taught	12	18

Teachers' Role Related Perceptions Versus
Lived Experience

With the exception of a few questions, responses of both MCD and DoE teachers were found to be similar. Respondents reported joining public schools for a variety of interlinked reasons. Some of the commonly cited reasons involved having an interest in teaching or spending time with children, drawing a steady income, and being able to maintain a healthy work–life balance. Perks that come along with being employed in the public sector, such as job security, high salaries, and consistent salary increments, were also compelling factors for many of the respondents.

Of the 200 respondents, 76 had taught in private schools prior to joining the public school system. The biggest factors for choosing public schools were "job security/higher income/social prestige" attached to being a government employee. Followed by the expectation of being able to maintain a better work–life balance teaching in public schools. Common to these respondents was also the expectation that the workload in public schools would be less compared to the private schools where they had previously taught. A quote from one of the respondents sums up the sentiment shared by the respondents:

> Only those who have run out of options go for private (sector) jobs! (Accountability Initiative, 2019, p. 17)

Some perceived teaching as a noble profession and/or a vocation. For these individuals, being identified as teachers, the respect associated with the profession, and the significance of the job were ipso facto important incentives. Yet others prioritized being a "government employee" over being a "teacher". They viewed the public school as a stopgap arrangement till the time they moved on to better opportunities, while still being able to draw employee benefits.

In articulating their roles and responsibilities, teachers tended to prioritize activities directly connected to teaching-learning, including preparing lesson plans, evaluating homework and tests, describing these as primary or core to their profession. Recordkeeping tasks related to students' attendance, test scores, and enrolment were also largely viewed as a critical part of their job. In describing their conception of a "good teacher", the responses were, once again, overwhelmingly similar. The responses cut across three themes: teaching-learning style, including

mastery over subject matter and teaching methods; good personal traits such as patience, punctuality, and an ability to connect with students; and someone who was a role model like figure to the students, and focused on their overall development.

The lived experience of working in the public education system, however, differed from their personal expectations and their conceptions of a "good teacher".

Upon entering the system, teachers reported feeling underprepared to cope with the social distance between them and their students, and the challenges that came along with it. There was a sense of exasperation with which most teachers spoke about teaching and managing their students. Teachers reported spending an unaccounted amount of time educating and sensitizing both guardians and students about social issues such as child marriage, drug abuse, and health and hygiene. Taking out time to fill out forms for students, and explaining administrative procedures to guardians was a frequent affair.

The socially and financially weak family background of the students and the lack of parental involvement were largely understood to be key reasons behind why students lacked the right "environment" in their homes to practice lessons. In the same breath, many teachers strongly felt that few government policies, especially those under the Right to Education Act (RTE) (2009), such as ending corporal punishment and detaining students if they failed to clear exams, had reduced the importance of studies in the eyes of students and parents over the past few years.

Balancing Academic and "Administrative" Responsibilities

When asked to list the top five hurdles they faced working in school, both MCD and DoE teachers mentioned the same issues:

- Non-teaching tasks that teachers described as "administrative" tasks or additional tasks (66% of all responses recorded for this question).
- Lack of parental involvement in students' studies (63% of all responses).
- Lack of resources and infrastructure (49% of all responses).
- Weak academic foundation/low learning levels among students (48% of all responses).

- Students being disinterested in studies, undisciplined, or frequently absent (46% of all responses).

When discussing roles which were not directly related to teaching-learning, teachers tended to use the phrases "administrative work" and "non-academic work" in two ways—one to distinguish between the types of recordkeeping work and to differentiate between responsibilities directly associated with the school and Education Department and those that come along with being a civil servant, such as election duties.

For recordkeeping related work, teachers made a distinction between two types, preferring to work on type of record over the other. The first type involved maintaining basic management information that directly related to the students they were teaching, including student attendance, test scores, and enrolment data. Thirty-seven per cent and thirty-two per cent of respondents viewed this as their primary and secondary responsibility, respectively, while 31% of teachers felt they should not be doing this at all.

The second type was repeatedly described as "administrative", "non-academic", and/or "clerical" work. This involved records that teachers recognized as essential to school management, but were not directly related to teaching-learning. For instance, opening bank accounts, updating students' Aadhaar IDs, distributing and maintaining records of entitlements like uniforms, scholarships, and books, responding to Department circulars, and updating the annually collected UDISE information. These activities were also described as time-consuming as they had multiple steps, from collecting the information to organizing the data to verification to online data entry, all of which cut into teaching time.

It was felt that these activities should instead be done by dedicated clerical staff. Some teachers also suggested that bank or Aadhaar officials should hold regular camps in schools instead of involving teachers in the process. Harassment by bank employees, who sometimes refused to open bank accounts of the students, the errors in the Aadhaar details submitted to teachers, and sudden demands by administrative officers in the Education Department to provide different data points further aggravated the situation. Teachers stated that they had no choice but to do these activities in the current schema because most parents could not be relied upon to fill forms accurately. Vacancies and low competence of

clerical staff in DoE schools and lack of such posts in MCD schools exacerbated the problem.

We struggled to get clear responses from teachers when we asked them to list down the total number of records they had to maintain and the frequency with which these were updated in a typical year. The struggle was more about pinning down the frequency and estimating the time spent on each of the records. The responses to this question seemed to be summed up in the question on teachers' thoughts on why paperwork took up a lot of time. Over half the respondents cited the following key reasons why recordkeeping tasks took up a lot of time—they were either asked to submit the same information multiple times in a year, often in slightly different formats shared by the Department; they had to create records in both hardcopy and softcopy formats; lack of or poor quality (clerical/IT) staff; and human errors in data management.

Teachers also reported having to learn to carry out administrative tasks, on the job, such as maintaining salary accounts and bills—tasks which are very different from their basic job profiles—because of poor quality or lack of clerical staff. Instances of human error and time spent on rectifying the same only increased for these reasons.

Teachers reported feeling guilty, disappointed, and expressed other negative emotions while describing how time spent on non-teaching tasks affected their self-image, morale, and relationship with students. As one teacher succinctly pointed out:

> Our job is to teach, not to do the work of lower division clerks…
> (Accountability Initiative, 2019, p. 19)

Further, by virtue of being *government* school teachers, they are required to be involved in decennial census, election, and disaster management duties. Activities like conducting door-to-door surveys to identify and enrol out of school children, and organizing anti-tobacco campaigns are part and parcel of their duties as public school teachers—duties which many of the respondents felt they were not prepared to carry out especially considering the number of days, and the physical and mental toll it took.

Teachers from MCD schools expressed other issues that affected their motivation towards their work. MCD teachers have been experiencing frequent salary delays. During the time of data collection in late 2017 and early 2018, teachers were reporting salary delays of up to three

months and more. Some teachers raised concerns about their personal safety, citing instances where they faced harassment at the hands of guardians. In MCD schools, not having security guards stationed at all times at the school gate was understood to be a critical issue contributing towards creating an environment of fear and mistrust.

Dearth of Professional Feedback and Misaligned Incentives

When we asked teachers about the criteria against which their work was assessed and whether they found them to be fair, we were often met with puzzled stares. We had to explain the question further by giving examples of other professions and mentioning the term "ACR" or Annual Confidential Report—a term that all government employees are well familiar with. The concept of receiving formal feedback about their work as teachers struck as foreign to many. 10% of the respondents either did not know or could not answer the question. 4% of the teachers said performance assessment as a process was not applicable to them because ACRs were not made for teachers recruited on a contractual basis. Pass percentages of students (25% of all responses), teaching abilities (12% of all responses), and punctuality (10% of all responses) were the top three indicators against which teachers believed their performance was measured.

Most teachers reported that the existing mechanism of performance evaluation was insufficient to capture the range of activities teachers did and to gauge the effort put into assessing student progress. The ACR is prepared by the HoS, who uses their discretion to give teachers their annual grade. Teacher promotions are tied to these grades so many HoS' are known to treat this as a formality, with most receiving a "very good" grade.

Periodic school monitoring carried out by zonal and district education officers usually entails going through registers and records, and quick-to-observe indicators, such as school cleanliness. This only adds to discontentment as teachers end up feeling underappreciated for their core roles as teachers.

In the absence of meaningful professional feedback, teachers appear to prioritize what is minimally expected of them viz a viz their teaching responsibilities, including ensuring that chapters in the syllabi are taught to the extent that students are able to score well in tests. This is doubly challenging as students' educational base is weak (World Bank,

2018). Many students hail from families that frequently migrate. Under the RTE, schools are not allowed to strike off students' names for low attendance, and are required to enrol students at any point in the year. All of these factors leave teachers struggling to effectively meet curricular expectations put on them.

During our ongoing semi-ethnographic study in Delhi, we observed teachers ramp up "revision" classes prior to exams, which entailed rote memorizing question and answers, and sharing "shortcuts" to score marks. The focus was not so much on making sure students' understood concepts or applied themselves, but on performing just enough to clear the exams. In the survey, teachers reported feeling pressured to show high student pass rates and also shared anecdotes of manipulating test scores to reflect the same.

Teachers' Timesheets

The time use data seemed to support many of the experiences shared by teachers in the perception survey. It showed that teachers were only able to teach for less than half their time in school. MCD and DoE teachers reported spending total 556 and 543.4 hours, respectively in their schools. Across all three phases, MCD and DoE teachers taught for 41% and 39% of their time in school. This increased to 49 and 52%, respectively, after including other academic activities like engaging students in games and sports, classroom management, and teaching-learning supporting activities, such as answer script evaluation. Figure 7.1 depicts the time spent by MCD and DoE teachers, respectively, on various activities in school, during school hours.[6] It is interesting to note how despite the differences in school routines, the time distribution across activities appears similar for both MCD and DoE teachers.

Academic Activities

Time use data from DoE schools showed that on average, in a 45 minute period, 30 minutes were spent on teaching, around 6 minutes were spent on other academic work like classroom management, and roughly 9 minutes went on school management and "other" work.

Teachers appeared to regularly face disruptions while teaching, which either occupied a stretch of time over several periods or was interspersed throughout the day, thereby breaking the flow of teaching. More so in

MCD schools

DoE schools

9% 1%
2%

49%

39%

3% 8% 1%

52%

36%

■ Academic   ■ School Management
▪ Stakeholder Interaction   ▪ Break
■ Other

■ Academic   ■ School Management
▪ Stakeholder Interaction   ▪ Break
■ Other
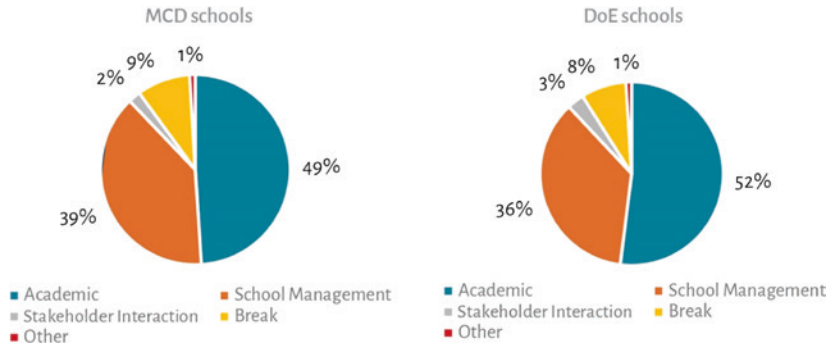
Fig. 7.1 Overall time spent on activities during school hours (in %) (Davis & Singh, 2019, p. 3)

the case of MCD schools due to guardians who would enter classes with queries around administrative matters related to students' bank account details, admissions, or school-leaving certificates. A closer look at the teachers' timesheets helped to further unpack the sentiment of feeling distracted from their core work. Looking at 35 DoE and 54 MCD teachers' timesheets, one could see that the total time spent by each of them on non-academic activities was not as high, but it was the way these activities were distributed through the day, which was probably fuelling the feeling of being overwhelmed and constantly disturbed by non-academic work.

School Management Activities

We found that teachers were spending a significant amount of time on activities related to school management. Routine tasks like recording daily attendance and submitting it online, adjusting the timetable and assigning teachers to different classes, organizing and participating in the school assembly, overseeing the midday meal, and supervising student dispersal at the end of the day, tended to be needlessly time-consuming.

Resource constraints, limited capacities, and procedural inefficiencies aggravated the situation. For instance, teachers reported maintaining records manually and entering the same information on the office computer, doubling the time spent on the same activity. In trying to analyse or retrieve any piece of information, the HoS or senior teachers would

rely on junior teachers to personally furnish the information, even when a digital version of the same was available on the office computer. As previously mentioned, DoE teachers tended to complain about the lack of or poor quality of clerical staff. They felt that the clerical staff either lacked the necessary skills to manage school data or were disinterested in doing their job.

Once again, the under-resourced MCD schools fared worse in this aspect. These schools saw more staff shortages, lacked clerical staff (this post is not sanctioned in MCD schools), and saw more technical difficulties, such as malfunctioning biometric machines, and poor to no internet connectivity at the school. Teacher vacancies in many of the MCD schools were also felt more starkly since these schools have 4–5 teachers, on average, which means fewer teachers have to handle multiple charges.

School management tasks often extended beyond school hours, though not as frequently as teachers appeared to portray in the perception survey. Of the total 39 hours reported by DoE teachers working beyond school hours, 49% of time was spent on academic tasks like evaluating answer scripts and notebooks, while 51% was spent on tasks such as recording their own attendance, student dispersal, recordkeeping work pertaining to exam results, external exam invigilation duties, and responding to official emails and circulars in the HoS' office. Of the 49 hours reported by MCD teachers working beyond school hours, 94% of the time was spent on routine management activities including student dispersal (in MCD schools, teachers are required to accompany students till their guardians collect them), handling admissions and school-leaving documents. Few teachers reported spending time filing annual tax returns for the school staff at the Income Tax office and making trips to the bank for official work.

Juggling Multiple Administrative Responsibilities

Juggling multiple school management related charges was the norm in DoE schools. 30 of the 85 DoE teachers either exclusively taught standards 11 and 12 or 11, 12, and junior classes. These "senior" teachers had, on average, four school management related charges apart from the responsibility of teaching their designated subjects. 15 of these teachers spent less than 50% of their time in school on academic activities. 21 of whom taught for less than 50% of their time in school. All 6 teachers who were Teachers' Incharge taught for less than 50% of their time in school.[7]

On average, the surveyed MCD teachers also had 4 charges related to school management. Across all three phases, teachers who reported spending less than 50% of their time purely on teaching, included teachers with exam, IT or the Head Teacher charge. However, while teachers with these charges were repeatedly found towards the bottom of the list, upon arranging data by time spent on teaching for each of the three phases, they were by no means the only ones who spent less than 50% of their time teaching. Differences were noted due to the time of year when the data was collected. Teachers with "seasonal" charges (charges which require work to be conducted only at a certain point of the year, like admissions) were observed to be busier with charge related work at expected points in the academic cycle, and were found to be spending less time on teaching.

This needs to be tempered with another insight gathered through this study—that variations in time spent on activities depended on the nature and number of charges, the classes assigned to the teacher, and the way work was delegated. For instance, some teachers had fewer charges but were teaching multiple classes or sections. Additionally, some teachers with daily charges, for example, the midday meal charge, could be less occupied with associated tasks if the school employed someone to distribute, supervise, and clean up after the meal. Further, in case of funds and scholarships related charges, much of the work is ongoing rather than seasonal, due to the multiple steps involved in disbursing and maintaining accounts.

What complicated matters further was the fact that administrative tasks would crop up at any time. From our ongoing observational study in Delhi, we have learnt that school priorities are set based on the circulars issued by the Department of Education on a daily basis. But the HoS is also continuously connected with administrative officials telephonically or via emails. We have observed HoS tending to data demands sent in the form of Whatsapp messages while conversing with us. This usually sets off a chain of activity with one or more teachers being called in from either the staff room or classrooms to address what is often deemed an urgent data requirement. Presently, there are no norms or rules around the usage of the instant messaging platform as an official mode of communication but it has become an inextricable part of the Education Department's daily functioning. Teachers often complain about being disturbed by data demands or other petty tasks during and after school hours as a result of this.

Conclusion and Way Forward

Through the perception survey we learnt that teachers were able to clearly articulate their purpose and motivations behind working in public schools. But there exists a strong narrative of feeling overburdened and alienated at work across MCD and DoE teachers. We learnt that this is a layered narrative, one which gets built over time. The feeling stems from an amalgamation of experiences which come into play soon after teachers enter the public school system. These include feeling underprepared to manage multiple roles in what is often an under-resourced and low capacity environment; genuinely struggling to prioritize teaching; the quality of teaching that takes place as a result of frequent disruptions and the stress of juggling other tasks; and lack of feedback on substantive teaching-learning matters from academic and administrative supervisors. These findings are in sync with those of Ramachandran et al. (2017), Majoomdar and Mooij (2012), Bhattacharjea, Wadhwa, and Banerji (2011), and Ramachandran et al. (2008).

We learnt that this sentiment is buttressed by a sense of disillusionment resulting from a mismatch in their personal expectations versus what teachers end up doing in schools. We also cannot discount the fact that teachers find their work demanding, relative to their initial expectations. (The expectation that government jobs are secure and supposedly "relaxed" is still widely prevalent in India.)

Firsthand experience primarily shapes teachers' understanding of and their relationship with "administrative" or "non-academic" work. Teachers reported being struck by the degree of student delinquency and absenteeism, lack of parental interest in academic matters, the time and energy it takes to counsel students and guardians on various issues, and managing other government duties, such as their involvement in elections and survey duties. While the RTE Act clearly spells out the number of hours teachers are required to teach in an academic cycle, it is not as precise about other responsibilities. The time spent on these tasks thus becomes "invisible" in that these are not accounted for in clear terms by anyone at any stage.

This study also raises questions around the efficacy and quality of present-day pre-service and in-service training, which are supposed to acclimatize and prepare teachers to handle their roles and responsibilities. Ramachandran et al. (2017) discuss in depth about the nonexistence of probationary training and the poor quality of in-service training. These

are treated casually by most participants. Teachers report that these trainings are often "too theoretical" and unsuited to their context. The trainings are conducted regularly and often require the trainees to leave their parent school, sometimes for multiple days, which only adds to the feeling of being distanced from their students and their core work. Regular, school level workshops whose content speaks to the immediate context in which students and teachers interact, could be more effective in building capacities.

An examination of teachers' time use indicates how responsibilities are prioritized and how work in schools happen through close coordination with peers and superiors. It was interesting to note the similarity in time use trends across academic, school management, and other activities among MCD and DoE teachers, despite having different school arrangements, and being managed by two separate education departments.

We learnt that having "additional charges" does not always result in teachers struggling to find the time to teach. Teachers with more responsibilities tend to be senior so they are familiar with school processes. They themselves, or with the help of the HoS, rationalize and delegate work among other teachers, even though only one teacher has the formal charge over a certain administrative task. This, then, affects timesheets of other teachers and possibly leads to collectively feeling swamped with administrative work.

With respect to prioritizing academic duties, even though we actively chose to look at the "busiest" teachers in the sampled schools, it is worth reflecting on whether it is acceptable for any teacher to be spending less than half the day in school on activities that are not directly related to teaching-learning, at any given time of the year.

We learnt that most of the data generated at the school level is prepared and maintained in both digital and hardcopy formats. Staff are not formally trained to handle administrative data, resulting in errors, and more time being spent on managing records. Moreover, there is scant discipline around who and when this data is asked for, which only reinforces this perception.

The time and energy diverted to managing administrative records can be reduced by applying various measures. Teachers could be trained on MS Office operations and basic administrative matters on an ongoing basis in their own schools. Contractual data operators, proportional to school strength, could be hired. Improving capacities of existing clerical staff in schools, and filling vacant posts of principals, teachers, ministerial,

security, and cleaning staff will also reduce time spent on non-teaching tasks. Training the school's clerical staff to manage tasks, such as opening students' bank accounts and Aadhaar seeding, would further free up teachers' time to focus on teaching-learning activities.

Middle tiers of the education administration could hire data analysts to manage information collated at their respective levels instead of reaching out to schools regularly for the same information. The various branches of the Education Department and other Departments should coordinate to collect unit-level information on various indicators on preset occasions in a year. This would also help identify and weed out data points that are repeatedly or unnecessarily collected.

Public schools are enmeshed in a deeply hierarchical and bureaucratic setup. This means that schools are not just organized sites for facilitating teaching-learning but also double up as last mile offices of various government departments. For instance, schools distribute entitlements in the form of scholarships provided by the Department of Social Welfare as well as the Department of Education. Thus, the way schools and teachers function, the time put into fulfil essential tasks, and issues surrounding the quality of teaching-learning taking place inside schools, must also be viewed as a symptom and a consequence of issues at the upper echelons levels of the education bureaucracy.

Relying on the Education Department's instructions on a day-to-day basis to plan activities affects teachers' sense of autonomy. Allocating time to complete different tasks entails having clarity about the Department's goals and priorities, knowledge of timing of upcoming events, and control over one's own schedule, which teachers often lack. As a result of this, teachers report frequently being unable to clearly *allocate* time to perform core roles like teaching. Instead, they *allot* time to tasks based on cues or instructions from other actors.

There is an urgent need to streamline planning at the State level as it directly affects school routine. Coordination between branches of the Education Department and with other Departments, whose activities converge at the school level, must be improved. This would address issues resulting from clashing dates of events, and allow various planners to set realistic deadlines, while being cognizant of the time taken to carry out routine school activities.

An important planning tool for the schools is the Annual School Calendar issued by the Directorate of Education. Currently, this calendar is a poorly organized list of timelines issued by each branch of the

Education Department. A revamped calendar with dates of all important events arranged in a chronological manner, would allow ease of planning at the school level. Setting a cap on the proportion of time teachers spend on administrative or non-teaching tasks per week could also be a way for school managers and individual teachers to improve planning and regulate time spent on various activities. This will also send a clear message that Education Departments prioritize teaching-learning, above all other school activities.

Findings from this study also push one to reflect upon the public school teacher's career trajectory and performance incentives. Teachers reported students' annual passing rate as the most definitive marker of their performance as professionals. The processes by which these results are generated and the conditions under which teachers complete the syllabi are actively mystified due to "thin" monitoring by administrative and academic supervisors. Moreover, in the case of Delhi, principals often get promoted to the post of the zonal education official, which is primarily an administrative role. This only distances seasoned educators further away from their core professional identity. There is an urgent need to reform teachers' formal incentive and accountability structures such that it aligns with their core roles. Monitoring and supervision at the school level will consequently improve.

More fundamentally, this study raises questions around how the public school teacher is positioned as a professional in society. Public school teachers have a dual professional identity—that of a teacher and a government employee with an additional set of responsibilities, which is not always related to teaching-learning. Most of our respondents appeared to face some degree of dissonance vis-a-vis the latter set of roles. There is perhaps a need to reimagine the public school teachers' profession as one which smoothly blends the two. This could be a useful starting point to stimulate discussions on introducing reforms in multiple domains, such as recruitment, capacity building, and teacher accountability.

Finally, further studies of this nature should be carried out across the country to deepen our understanding of how teachers perceive and realize their roles in light of their embedded position in a large and complex education bureaucracy. Without a deeper reflection on these issues, discussions on skills and capacities which must be developed to carry out the full range of a public school teacher's duties will remain obfuscated.

NOTES

1. Founded in 2008, Accountability Initiative (AI) is a research group housed within the Centre for Policy Research, New Delhi. AI's mission is to improve the quality of public services by increasing transparency in governance and driving greater accountability for the delivery of these services. It looks to achieve this by conducting rigorous grassroots research on the implementation of government programmes and linking evidence with citizen led action.

2. The Directorate of Education is responsible for the overall administration of public education in Delhi. This means that MCD schools are also accountable to the DoE. However, for administrative ease, MCD schools have an administrative setup and leadership which is entirely separate from the DoE.

3. In Delhi, local bodies including the Municipal Corporation of Delhi (MCD), the New Delhi Municipal Council (NDMC) and the Delhi Cantonment Board primarily manage pre-primary and primary education. While middle to senior secondary education is primarily managed by the state government through the Directorate of Education. The MCD and DoE schools are the two largest education departments in Delhi. Together, the MCD and DoE catered to over 2.2 million students enrolled in 2921 schools as per the 2016–2017 Unified District Information System for Education (UDISE) database.

4. It is a norm in both MCD and DoE schools to assign responsibilities related to school management to certain teachers which are commonly referred to as "additional charges". They are perceived as "additional" in relation to teachers' academic responsibilities. There is no official list of charges that has been prescribed by the Education Departments. Principals or Heads of Schools use their discretion to create the roles and assign these to teachers for the smooth functioning of the school.

5. On average, an MCD school functions for 4.5–5 hours. Usually only one teacher is assigned to a class in an MCD school. She takes on the role of the "mother-teacher" who progresses with the students as they graduate to the next class, and teaches them all five subjects. Since the students being catered to in MCD schools are under ten years old, the time allotted to each subject depends on how students respond to the same on a given day. The assembly, midday meal, and school start and end times are fixed. DoE schools function for anywhere between 5 and 5.5 hours to 6.5 hours depending on the "shift" (schools are run in either single or double shifts owing to high student strength and infrastructure constraints). While a majority of schools follow the standard 8 period timetable for most of the year, some have altered it to 7 periods. This is based on DoE instructions

and HoS' discretion. Period durations vary between 30 and 45 minutes on average.

6. Teacher activities were categorised under five broad headings. "Academic" activities were those involving teaching-learning inside classrooms, as well as games or sports. This included classroom management and activities which directly aided teaching-learning processes, such as preparing and evaluating tests, lesson planning and checking notebooks. "School Management" activities were related to the functioning and management of the school. This included routine activities like marking attendance, recordkeeping, participating in and managing the daily school assembly, managing students outside classrooms and supervising MDM, among other related activities. "Stakeholder Interaction" time was the time teachers reported spending on verbally interacting with parents/community members, officials and School Management Committee members. This also included time spent attending official meetings, defined as formally organized gatherings with a specific agenda. This did not include time spent on informal, day-to-day interactions teachers had with their peers, which could not be meaningfully quantified. "Break" was the time when teachers were idle during school hours. This included the time designated for lunch and "free time" between classes or teaching periods when teachers were reportedly not doing any school-related activities. "Other" activities included time spent on activities that did not fall under the aforementioned categories. For instance, teachers being on officially sanctioned leave.

7. The "Head Teacher" or "Teacher Incharge" in a MCD or DoE school is a senior teacher tasked with the additional responsibility of handling school's administrative affairs in the absence of the HoS.

APPENDIX: TEACHER TIME ALLOCATION AND WORK PERCEPTIONS SURVEY QUESTIONNAIRE

1. Background Information

1.1   Name
1.2   Phone no.
1.3   Year since you have been teaching in this school
1.4   Total years taught in a government school
1.5   Total years taught in a private school
1.6   Employment status (Permanent/Guest/Contract)
1.7   Educational qualification

1.8   Professional qualification
1.9   Subject(s) taught
1.10   Standard(s) and sections taught
1.11   Additional Charges, if any
1.12   Approximate number of periods taught on an average week
1.13   School name
1.14   School shift
1.15   School timings
1.16   Number of Periods (NA if MCD school)
1.17   Date of interview
1.18   Special Occasion/Comments

2. Perceptions Around Teaching Profession

2.1   What made you join this profession?
2.2   What do you like most about your job as a teacher?
2.3   What is the least favourite activity you have to do as a teacher/ Part of your job you dislike the most?
2.4   Who according to you is a model/good teacher or "Adarsh teacher/Achcha teacher"?
2.5   If you have taught in private school, what led you to you shift to a government school?
2.6   What are the major hurdles you face as a teacher in your school?
2.7   Apart from the difficulties listed above, are there any other difficulties you face while teaching inside classrooms?
2.8   As a teacher, what is the topmost thing on your mind while you are teaching?
2.9   Why is the answer to the above question (2.8) on top of your mind while you are teaching?
2.10   We will now list some of the activities that teachers in government schools often carry out. We would like your opinion on which of these you believe are part of a teacher's core or primary responsibility; which of these are part of a teacher's secondary duties; and which are the activities that you believe teachers *should not be engaging in.*

        a. Preparing lesson plans
        b. Invigilation, exam duties

    c. Designing activities for student learning

    d. Creating and submitting lists related to student attendance, examinations

    e. Being involved in distributing uniform, scholarship, other grants (creation of lists, verifying disbursement amounts, follow up with stakeholders)

    f. Being involved in opening and closing of bank accounts of students

    g. Registering students for new Aadhaar cards, filling Aadhaar forms for students, ensuring Aadhaar related seeding of students

    h. Responding to circulars issued by the Education Department

    i. Uploading student information online (for example, UDISE related)

    j. Assisting in health checkup and distributing medicines to students

    k. Ensuring midday meals are properly distributed to students

    l. Attending workshops and trainings organized by the government

2.11 Total number of days spent attending trainings/seminars in the last two years?

3. On Recordkeeping and Paperwork

3.1 Please list the names and number of records maintained by you? How frequently are these updated?

3.2 Do you think paperwork takes up a lot of your time or not? If yes, can you explain why?

3.3 How do you think this can be changed? Any suggestions?

3.4 How frequently do you take back work from school to finish in your home? Why?

3.5 On which months does the volume of paperwork increase? Why does it increase during this time of the year?

3.6 Have you been assigned to any of the following activities in the last two years? When? How many days were you involved?

    a. Election Duty

    b. Census Duty

    c. Other official duty (name to be noted)
    d. Other official Survey (name to be noted)
    e. Disaster Relief Duty

4. Other Opinion Based Questions

4.1 To what extent do you agree with the following statements? (Options—Strongly agree; Somewhat agree; Somewhat disagree; Strongly disagree)

    a. Completing the syllabus on time is the most important task for a teacher
    b. To do well, along with regular school, students also need private tuition
    c. If children don't learn well, it is equally the parents' responsibility
    d. I feel my salary is adequate
    e. Teachers whose students score more should get higher salary
    f. Teachers whose students score lesser should get lesser salary
    g. I feel I need more training on teaching methods

4.2 Do you think current parameters on which teachers are assessed are fair?

4.3 On which parameters is your work as a teacher assessed by your HoS?

4.4 What, according to you, could be fair parameters to assess teacher performance?

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Active Learning Reform in the Maldives: What Works for Whom Under What Circumstances

Rhonda Di Biase

INTRODUCTION

Improving the quality of teaching and learning has become a global imperative, articulated in the *Education for All* goals and more recently in the *Sustainable Development Goal 4* (SDG). As Alexander (2015) asserted, what happens in the classroom is at the front line of educational quality. Across national governments, with support from donor organisations, learner-centred pedagogies (LCP) have been promoted as an antidote to the limits of traditional transmission models of teaching and passive learning argued to stifle critical and creative thinking (Leyendecker, Ottevanger, & Van den Akker, 2008). Yet the implementation of LCP has been fraught with challenges, including transfer of inappropriate models that are not contextually relevant and a lack of clarity around the concept itself (Schweisfurth, 2015). Given the momentum

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to endorse such pedagogical reform, there is a need to understand these challenges and the disparity between policy and practice.

LCP, also referred to as active learning, is aligned with constructivist approaches in which learners have an active role to interpret, construct and reorganise knowledge in individual ways (Gordon, 2009). This requires a fundamental reorientation of the role of the teacher from transmitting a body of knowledge to being a facilitator of learning. O'Sullivan (2004) argued there has been a huge underestimation of the shift required in promoting LCP. This is borne out in the findings of a review of 72 LCP studies in which Schweisfurth (2011, p. 425) reported that the implementation of LCP 'is riddled with stories of failure grand and small'. As a global travelling policy, she signalled the need to recognise what is feasible in the circumstances, taking into account contextual factors in implementing such reforms.

Acknowledging the importance of context, the aim of the study was to investigate the enabling conditions for active learning reform within the Maldives. Given the well-documented challenges with implementing LCP, the study responds to Schweisfurth's (2011) call for a move beyond bland statements to more detailed analysis of what works, for whom and how. The research question guiding this study was 'How can teachers enact active learning pedagogy within the Maldivian education system?' A design-based research (DBR) methodology was used to investigate the conditions under which active learning can be implemented. This is an interventionist methodology that involves developing practical solutions to real-world problems that are implemented and studied in authentic settings (McKenney & Reeves, 2012). The pedagogical intervention, in this study, was an instructional model promoting active learning, which was developed, operationalised and studied in the authentic setting of a Maldivian island school.

Acknowledging Contextual Factors

In examining the conditions under which active learning can be implemented, Bronfenbrenner's (1979) ecological framework provides a way of conceptualising how teacher's practice is influenced by multiple layers of context (Fig. 8.1). This nested model acknowledges that factors operating outside the immediate classroom setting impact the use of active learning methods by teachers inside the classroom. Consequently active
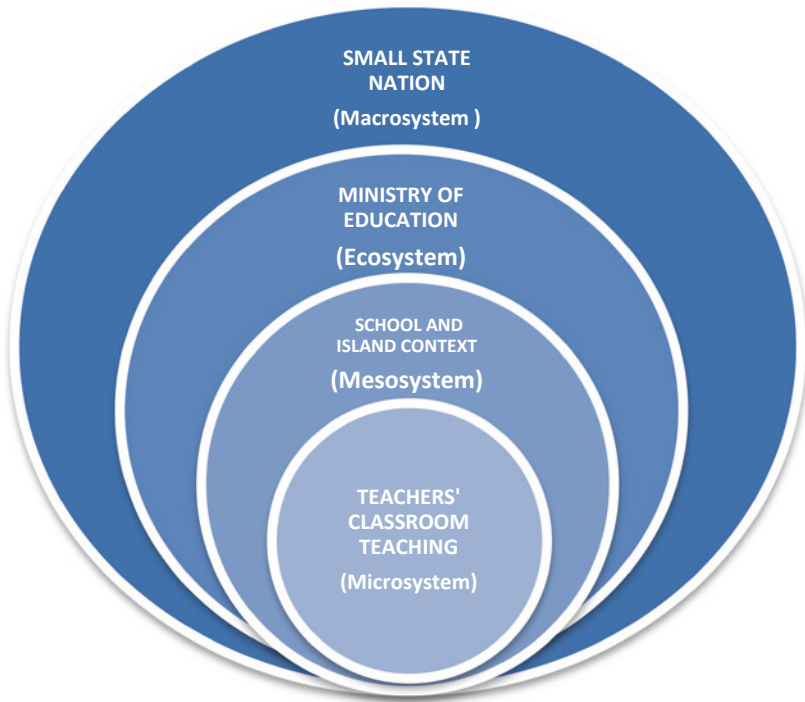
Fig. 8.1 An adaptation of Bronfenbrenner's ecological framework showing levels of influence on classroom teaching

learning as an innovation, can be analysed as part of a complex whole and thus 'enhanced or limited by the social ecology of the interacting systems' (Jónsdóttir & Macdonald, 2013, p. 276).

These layers are conceptualised as: the mesosystem—the school and local island context; the ecosystem—the Ministry of Education representing the policy environment; and the macro-system—the broader Maldivian society. As such, recognition is given to the multiple factors that influence the implementation of innovations in school settings (Jónsdóttir & Macdonald, 2013). Specifically, Schweisfurth (2011), referring to LCP, recommended that any new practices need to be mediated to fit a particular context acknowledging teachers' circumstances and the

factors impacting their practice. Therefore, in investigating the enabling conditions for classroom reform in the Maldives, Bronfenbrenner's model provides a useful conceptual framework.

The Maldives Context

The Maldives is a small island developing state (SIDS), with a population of approximately 450,000 in the South Asia region. It faces particular challenges due to its small size, dispersed population, limited natural and human resources and vulnerability to climate change and natural disasters (UNDP, 2014). The country is geographically fragmented with most of the population living on small islands. The distinctive characteristics and challenges of the Maldives draws attention to 'the signification of context' (Crossley, 2010, p. 422). Small states have distinctive challenges in delivering education for a small number of students from a restricted institutional base and across geographical dispersion (Crossley, Bray, & Packer, 2011). The need for educational innovations is seen as critical to the development of small states. Yet as Crossley et al. (2011, p. 32) argued, international agendas have often dominated educational policy formation, at the expense of local input and appropriate sensitivity to contextual factors at national, provincial and school levels. Therefore, care is needed to ensure that curriculum and pedagogic reforms are consistent with local cultural, contextual and professional realities in striving for successful implementation (Crossley et al., 2011).

Improving the Quality of Education in the Maldives

The Maldives education system is structured around preschool (2 years), primary education (Grades 1–7), lower secondary education (Grades 8–10) and higher secondary (Grades 11 and 12). Despite the challenges of a highly dispersed population, the Maldives provides an example of a country within South Asia that has made great progress in improving provision of education and presents one of the highest net enrolment rates for primary education in the region (Asim, Chase, Dar, & Schmillen, 2017). Despite these impressive gains and a high literacy rate, attention is needed to improve the quality of education (The World Bank, 2014; UNDP, 2014). The highly regimented system supports a pedagogy that privileges memorisation and transmitting a body of

knowledge to students, despite calls to incentivise learning and move away from examination as the yardstick for measuring success (Shiuna & Sodiq, 2013). The limitations of this transmission approach to teaching were revealed in a UNICEF study (2014), which found that students performed better on questions based on recall of facts and performed poorly on questions requiring conceptual understanding.

An explicit program designed to address education quality was the Child Friendly Schools (CFS) project. It began in 2002, with support from UNICEF, as a pilot program and following the 2004 tsunami it was expanded across the country. The CFS approach became a major driver of pedagogical reform in the country that explicitly promoted active learning as a pedagogy that represents 'good education', according to interviews conducted within the Ministry of Education (UNICEF, 2010, p. 16). The initial CFS approach in the Maldives was based on the Gonoshahajjo Sangshta (GSS) model from Bangladesh which promoted the use of learning corners, a major shift in pedagogy, classroom organisation and role of the teacher.

The second major initiative, promoting pedagogical reform, is through the roll out of the new National Curriculum Framework which began phased implementation in 2015. This outcomes-based curriculum strives to reform the predominant pedagogy of a traditional teacher transmission approach through the explicitly articulated pedagogical dimensions, prioritising the use of active learning methods. A change in assessment policy advocates greater use of formative assessment methods over traditional pen and paper testing.

This vision of 'good education' has faced a number of implementation challenges in schools. LCP or active learning reform is a challenging process, not only in the Maldives, but across many low-resource contexts. Schweisfurth (2011), in her extensive review, explored how the vision embedded in reforms often fails to find its way into practice. Within the Maldives, the GSS learning corners model was found to work better in theory than in practice (Shafeega et al., 2005). The following challenges were reported: how the concept of active learning was interpreted by teachers to focus on physical classroom changes; inadequate support for teachers in schools; lack of clarity in Ministry of Education expectations; and limited community mobilisation across island communities in developing a shared vision for change (McNair, 2009; Shareef, 2007).

Rationale for Pedagogical Intervention

DBR, as an interventionist approach, relies on recommendations and findings from prior research to generate promising solutions to a known problem (Schoenfeld, 2009). In light of the well-documented challenges of LCP reform, Mohammed and Harlech-Jones (2008) asserted there is a wealth of knowledge about conditions needed for successful implementation, yet these have often been ignored. Therefore, the pedagogical intervention in this study draws on recommendations in the literature, on LCP reform, to underpin its design.

Developing Operational Clarity

The original model of CFS brought changes to classroom organisation, particularly in the structure of the day and the inclusion of creative writing and story time (Shareef, 2007; Wheatcroft, 2004). These changes in routines emphasised greater flexibility in the classroom and more freedom for students (Shareef, 2011). Physical changes were reported as the most obvious changes (Di Biase, 2009; McNair, 2009; Shareef, 2007; Wheatcroft, 2004). Therefore, change has been most noticeably on organisational features rather than attitudinal and pedagogical change (UNICEF, 2010).

Central to LCP is the shift in the teachers' role from the custodian of knowledge to a facilitator of learning. Within this shift potential misconceptions can occur where teachers have a limited understanding of what 'facilitation' entails (Altinyelken, 2010). A number of researchers have suggested that a more a balanced and staggered approach to pedagogical reform may help combat the misconceptions around LCP and implementation problems (Altinyelken, 2010, 2011; Mtika & Gates, 2010; O'Sullivan, 2004). Moreover, Leyendecker et al. (2008) argued that changing classroom practice does not work by replacement, but by incremental change over sustained periods. Yet teacher transmission approaches are often polarised against LCP and as Barrett (2007) asserted there is a need to move away from this over-simplified dichotomy. Therefore a 'distributed model of active learning' (Leu & Price-Rom, 2006) has been proposed as a more productive way of viewing LCP reform which balances teacher-led and student-centred approaches. Consequently, conceptualising pedagogy as a continuum of practices,

helps underpin a model of LCP that balances teacher-led interaction and student-centred activities (Hardman et al., 2009).

Community Mobilisation

A feature of CFS is to encourage community involvement in the school (UNICEF, 2004). Parents can be kept from being actively involved in Maldivian schools, particularly in classroom activities (McNair, 2009). This can limit innovation when reform objectives and processes are not communicated to parents. Yet, it was also noted that when a school takes the initiative to harness the full support and resources of parents and the wider community, in a collaborative and mutually beneficial manner, the resulting level of community endorsement and participation has been encouraging (UNICEF, 2010). This is supported in the literature where Westbrook, Durrani, Brown, and Orr (2013) reported that positive attitudes from parents in the use of new methods was a facilitating factor and Brock and Crossley (2013) found that involving parents renders a better chance of successfully implementing policies.

Acknowledging Practical Realities

The need for a range of teaching resources is associated with active learning methods (Schweisfurth, 2011). During the early phases of CFS some teaching resources were provided by UNICEF to some schools. Yet McNair (2009) noted these resources could be found unopened, suggesting that perhaps teachers were unsure how to use them. Shareef (2007) observed that there was little evidence of teachers producing locally designed resources from local materials, and McNair (2009) reported the desire to use or make resources came down to the motivation of individual teachers. Therefore, the new pedagogy needs to be tailored to the available teaching resources and any constraints in the physical environment so that it fits with the practical realities of teachers' work (Schweisfurth, 2013). Acknowledging such limitations, Mohammad and Kumari (2007) found that textbooks could be a useful learning aid when the content was enriched. Given Maldivian teachers' reliance on textbooks, they could provide a source of pictures, diagrams or explanations which can be used in innovative ways. Similarly focusing on pair and group work strategies may be a way to manage limited resources (Ginsburg, 2010).

Teachers as Learners

As research shows, workshops alone are rarely effective in replacing traditional methods (Schweisfurth, 2012). Teacher education was noted as a further barrier given the reliance on the off-site workshops in the Maldives, the lack of classroom-based support for teachers in schools and the extent to which school management explicitly promoted pedagogical change (McNair, 2009; Shareef, 2007). Moreover, professional development programs need to not only advocate but also model the new methods so that the message and medium of LCP are consistent (Schweisfurth, 2011) and where teachers, themselves, can experience the new pedagogy as learners. School-based professional development offers the most potential for changing teachers' practice to help teachers to demystify LCP (O'Sullivan, 2004). Teachers need 'continuous, localized and school-based' professional development (Leu & Price-Rom, 2006, p. 15) to support them to expand their range of pedagogical strategies from delivering knowledge to facilitating class discussions, overseeing activities and managing group work and student interactions. Consequently, leading teachers, who oversee teachers' daily work, have a critical role to play in supporting teachers within Maldivian schools.

Methodology

To understand the enabling conditions for pedagogical reform, the aim of this qualitative study was to investigate how teachers can enact active learning pedagogy in the Maldivian education system. It was conceived using DBR, an interventionist methodology, which examines the conditions that influence how educational innovations work in real-life practice. DBR has two outcomes: a practical outcome in developing locally valuable interventions; and a theoretical outcome which encompasses more globally useable knowledge in the form of design principles (McKenney & Reeves, 2012). The theoretical contribution of DBR is designed to be of value to those outside the research setting who may be interested in enacting similar innovations (McKenney & Reeves, 2012).

The study was situated in an island school, referred to as the Research School, which was selected for offering optimum conditions for implementation of the pedagogical intervention. The school was chosen as an information rich case for studying active learning because of its proactive uptake of CFS (Di Biase, 2017) with the intention of moving the debate

beyond the obvious challenges and exploring innovative practices in the best possible circumstances (Altinyelken, 2011). It was conducted over two phases; a contextual analysis phase and an intervention phase.

Using an adaptation of the World Café (Brown & Isaacs, 2005), a participatory approach that promotes collaborative dialogue, the contextual analysis was undertaken with members of the school community— parents, teachers and school leadership—to identify local priorities and perspectives of active learning. It involved a series of group activities including photo and graphic elicitation techniques (Di Biase, 2015b) as seen in Fig. 8.2.

The results from this phase revealed features of active learning considered important in the school community: the active participation of students; the use of group work to aid learning; emphasis on the role of teacher as facilitator; the necessity for a friendly classroom environment; and the potential of active learning to cater more equally for all students (Di Biase, 2015b).

Developing the Pedagogical Intervention

Embracing these features of active learning, a pedagogical intervention was developed in collaboration with teachers and school management, to support teachers' enactment of active learning in the school. It was underpinned by several key inputs illustrated in Fig. 8.3.

The model drew on recommendations in the literature in its development, discussed earlier, and was underpinned by a distributed approach, balancing teacher-led and learner-centred approaches in the design.

Fig. 8.2 Graphic elicitation activities with school stakeholders
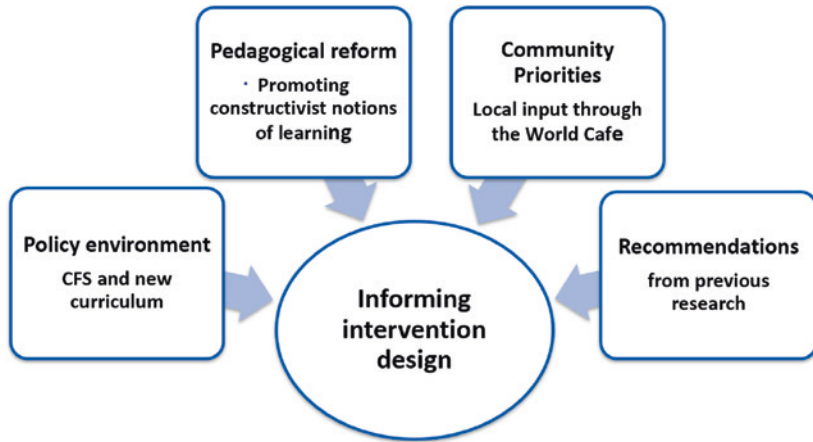
Fig. 8.3 Inputs informing the intervention design

The intervention was an adaptation of the Gradual Release of Responsibility (GROR) model which purposefully shifts the cognitive load from teacher-as-model, to joint responsibility of teacher and learner, to independent practice and application by the learner (Fisher & Frey, 2008, p. 2) allowing for teacher instruction along with opportunities for student participation. It was conceived in the school as 'I do, We do, You do' (see Fig. 8.4):

- I do (teacher direct instruction);
- We do (incorporating elements of co-operative learning); and
- You do (independent student work).

Specific cooperative learning strategies were incorporated within the 'We do' phase, that formed part of the intervention, to provide guidance on facilitating student participation within this structured framework and help shift the cognitive load to students. The community priorities, identified through the World Café, were accommodated in the model with the focus on group work, student participation and providing a structure for teachers to differentiate instruction.

The intervention was then enacted in the island school with two groups of teachers (7 generalist teachers in Grades 1–4 and

Fig. 8.4   Planning template for instruction model

7 subject-based teachers in Grades 5–7) and studied over eight months. Each group was led by a leading teacher in the school. Teachers were supported through this process through a professional development program that incorporated an introductory workshop, demonstration of the GROR model and how it works in practice, and classroom-based support in the form of co-planning and team teaching. An information booklet, providing practical classroom ideas for enacting the GROR model, was developed and shared with the teachers.

Data were collected through multiple sources over the intervention phase:

- Classroom observations
- Teacher recording booklets
- Record of teacher discussions
- Teacher questionnaires (pre and post intervention)
- Semi-structured interviews (pre and post intervention)
- Researcher field notes

DBR typically triangulates multiple sources and types of data to connect intended and unintended outcomes of the intervention (Design-Based Research Collective, 2003).

Data analysis was undertaken manually to identify emerging themes through an inductive process. The first step was to display all the data from the multiple sources. Where possible this was displayed in grids, although the interview transcriptions which were left as full text. Using copies of the data, a manual 'cut and sort' procedure was undertaken to identify patterns and themes, facilitating a dynamic process which evolved through the layers of analysis and an ongoing interaction with the data.

Findings

Drawn from all data sources, several key factors were identified as supporting teachers' use of the intervention in this study. Direct quotes from teachers have been italicised.

Promoting Operational Clarity

The GROR model in this study provided a structured framework assisting teachers to craft lessons in new ways. The teachers perceived the

model as easy to use, and the user-friendliness of the model was one of the key facilitating factors highlighted by teachers. This gives support to the necessity to clearly and practically spell out what should be achieved (Leyendecker et al., 2008). The problematic implementation of the original CFS model in the Maldives (Wheatcroft, 2004) is testament to the challenges when the concept itself was not clear for teachers. Not only was the original model of CFS, the GSS approach from Bangladesh, not contextually relevant for Maldivian teachers, but it was too far removed from their existing practice. Instead, the GROR instructional model in this study was adapted to the school, making the language and concepts accessible to the teachers. Subsequently, teachers were able to articulate their understanding of the instructional model and explain the purpose of each section providing evidence of the model's conceptual accessibility. The GROR model provided a framework for teachers' practice that maintained a clear role for teachers and connection to their subject knowledge and a clear place for teacher instruction through the 'I do' phase. Teachers highlighted that the model helped them view teaching as an interaction, something that is done in conjunction with students as captured by one teacher:

> Before we don't think about this 'I do' and 'we do'…just deciding some activities while planning. But now we should think about the activities and what students should do and what teachers and students should do together.

Teachers responded positively to this model as it allowed them to continue using teaching approaches they were comfortable with, namely teacher instruction and student individual work, alongside group activities, making the model more compatible with the circumstances of their work. As Schweisfurth (2013) affirms, where LCP buy-in has been reported, there has been mediation of LCP practices to fit the local context.

Supporting Teachers and Their Professional Development

In developing new ways of working, Brock (2009) argued that some amount of 'disruption' to the status quo is required to create new models of practice. The teachers voiced the need to have access to new ideas. Workshops have been the typical mechanism by which Maldivian teachers are exposed to new ideas, reforms or policies. Teachers in this study

viewed workshops as a necessity for learning and enacting new teaching methods yet also articulated difficulties with translating ideas from workshops into classroom practice due to density of information, lack of modelling and the indirect links to their classroom practice.

Through the intervention, teachers rated support closest to their classroom practice as the most useful, consistent with the findings of Hardman et al. (2009) that teachers need guidance and mentoring to bring new practices into their teaching. More prominent, however, was the teachers' requests for team-teaching to become part of the intervention phase as this afforded specific assistance with the goal of bringing the innovation to life in teachers' classroom and to help achieve operational clarity. Classroom-based support was a means of 'unfreezing' old practices and stimulating new models of teaching (Brock, 2009) relevant to the circumstances of their work.

Teachers reported the Information booklet, provided in the intervention phase as a useful resource, in providing a self-study reference with practical steps for each of the cooperative learning strategies. Such practical and contextually relevant teacher reference materials has the potential to support teachers across dispersed islands, to enact innovative practices, if they are practical and directly link to the realities of teachers' work (Ball & Cohen, 1999). If carefully targeted it provides another mode of ideas for teachers.

Availability of resources is another factor that does make a difference for teachers, particularly when enacting new, more interactive pedagogies. In comparison, teacher transmission methods 'demand little more than one book and some chalk' (Schweisfurth, 2012, p. 177). In this study, teaching resources were both an enabler and a barrier, dependent on their availability, such as adequate reference texts and teachers' willingness to find or adapt available resources. Existing resources in the school could be sourced and used in innovative ways such as textbooks (Di Biase, 2015a). However, this does require that teachers move beyond their existing routines and the established normative behaviours within the island school.

Developing a Change-Welcoming School Culture

Classroom practice does not function in isolation from the context in which it is situated. The Research School was selected as providing optimal conditions for operationalising the intervention. It posed particular interest in investigating what makes it work against the national trend.

These features resonate with what Altinyelken (2012, p. 202) refers to as 'indigenized implementation' that involves analysing how wider policies are mediated locally. The school's leadership was a critical aspect not only in leading change, but in creating a 'change-welcoming' school culture (Megahed, Ginsburg, Abdellah, & Zohry, 2012). This was seen in not only endorsing change, but also evidenced in the planned and strategic approach of the CFS program and how this was managed across the school community. The leadership in this school, as a driving force, took an inclusiveness approach across the different stakeholder groups that facilitated buy-in of the CFS approach. According to Schweisfurth (2013, p. 137):

> If learner-centred education implementation is taken seriously, shared clarity among teachers about its purpose and classroom workings needs to be fundamental to the process, and it needs to happen in a wider education context of purposeful order.

From the initial stages, the Research School began a process of adopting and adapting the CFS innovation into the school at the lower grades. In planning for change it recognised that the initial GSS model of CFS would not adequately fit with their circumstances and the school revealed a rationale for matching the desired change to their context. Comments from school leadership highlighted the difficulty they perceived with the original GSS model citing a lack of resources, student class numbers and teacher workload as constraints, making it unsuitable for their particular context. The school's approach to implementing CFS highlights the power of influences within the mesosystem (Bronfenbrenner, 1979) when facilitating change.

Working with, not around the island community, as demonstrated in the Research School and its approach to introducing the CFS model into the school, is an enabling condition where community participation is not only welcome but sought after. Likewise, the GROR model used as the intervention in this study was also adapted through a collaborative process. It was the school leadership that established dialogue with the teachers, that presented a deliberate opportunity for feedback in the process. The leading teachers used the intervention strategies in their own teaching, thereby providing a consistent message for teachers.

The organisational conditions for learning were raised by teachers as impacting on their ability to enact active learning: school infrastructure,

teaching resources and time. Mtika and Gates (2010, p. 402) refer to the need for 'supportive settings in classrooms', highlighting the shortage of space and resources as challenges that teachers face. Within the Research School, several resourcing issues were identified. However, it was also interesting to note that the school leadership were responsive to teachers' needs and leading teachers were also seen as a source of support—*management side encourages us a lot—in each and every meeting—likes to give ideas.* Shareef (2008) referred to leading teachers' focus on evaluation and accountability mechanism and highlighted the need for greater focus on mentoring in their role.

The double school session was reported as a further challenge, in the sharing of limited resources and furniture. Such challenges with the infrastructure were something the school could not easily solve, but the inclusive approach with parents in the introduction of CFS, meant parents did play a role in helping to provide some additional classroom resources. This challenge also distinguishes between the different levels of constraints in that some can be more easily solved from within the school, while others are more wide-reaching as conceptualised in Bronfenbrenner's model. Being able to differentiate these constraints was a distinctive characteristic of the Research School.

The findings are brought together in a conceptual framework, outlined in Fig. 8.5, which provides an overview of design principles, the theoretical outcome of this DBR study. The first set of design principles accounted for the reform itself focusing on how to move from conceptual ambiguity to operational clarity through a clearly articulated model that reflects the circumstances of teachers' work and promotes change in modest steps. The second set of design principles addressed teachers' professional development needs referring to the need for access to new ideas along with classroom-based to put new knowledge into practice. The third set of design principles dealt with establishing a 'change-welcoming' school and the key role of school leadership to support and lead change with parent-school collaboration. This conceptual framework acknowledges the macro level contextual details of the Maldives context, and its characteristics as a SIDS. The design principles that evolved from the study can potentially guide other schools and communities engaging with reform around active learning pedagogy.

Enabling conditions

Active learning innovation

Moving from conceptual ambiguity to operational clarity

Develop a contextually relevant model
The model of active learning needs to reflect and respect local priorities, fit with the circumstances of teachers' work and consider the available resources.

Balance what is desirable and what is feasible
The model of active learning needs to be conceived within the zone of feasible innovation, promoting a staggered approach to reform so that teachers can build on their current practice.

Provide operational clarity for teachers
The innovation needs to be clearly and simply articulated, providing practical guidelines within a structured approach.

Teachers' professional development

Teacher knowledge-practice-refinement

Knowledge: accessing new ideas
Teachers need access to new ideas about active learning pedagogy through multiple modes such as practical workshops and how-to guides (print and online resources).

Practice: putting new ideas into action
New ideas need to be enacted within the circumstances of teachers' work by: creating space for reform; providing classroom-based support; and drawing on available resources.

Refinement: adapting new ideas
Active learning pedagogy, viewed as a continuum of practice, requires ongoing refinement of teachers' practice.

School context

Developing a "change-welcoming" school

Leading change: the role of school leadership
School leadership needs to create a vision for change and to support and lead change within the school community.

Parent-school collaboration
Harness the support of Maldivian island communities through an inclusive process that mobilises community participation.

School management and organisation of resources
Organisational features can influence teachers' enactment of active learning. A responsive approach by the school leadership is needed to address teachers' concerns about managing available resource.

Operationalising active learning in the Maldivian education system

External factors

Influencing factors: SIDS

Characteristics of SIDS
Remoteness, small size, limited natural and human resources, vulnerability to external influences.

Contextual features of the Maldives
Highly dispersed country of small islands with challenges for delivering services across the country.
Economically – heavily dependent on tourism which is subject to fluctuations
Politically – problematic transition to democracy, unstable political context
Socially – unified by language and religion. Strong island communities.

Education in the Maldives
Disparity between Malé and island schools in resourcing and educational outcomes

Influencing factors: Policy level

Policy process
Policy creates the space for reform although has lacked operational clarity for teachers around the concept of active learning.

Teachers' Professional Development
Workshops are often carried out off-site in intensive blocks given the highly dispersed island schools. Teachers cited information overload and difficulty translating new knowledge into classroom practice.

Teachers' salary and working conditions
Low salaries were cited as a disincentive to undertaking additional work or responsibilities.

Assessment
Tensions reported between active learning methods and traditional assessment measures e.g. O and A-level examinations

Fig. 8.5 Overview of influencing factors for active learning reform presented as design principles

Implications: Finding a 'Pedagogical Nexus'

In acknowledging the influence of the systems surrounding the context (McKenney & Reeves, 2012), an analysis of wider education sector factors, small state features and the global context for active learning reform have an influence on the reform process. Schweisfurth (2013, p. 140) specified the importance of finding a 'pedagogical nexus', a term proposed by Hufton and Elliot (2000) in reference to the Russian education context. This is a set of linked, interactive and mutually reinforcing influences on students' motivation to learn and encompasses a range of 'ingredients' such as school, class, teacher, home–school relations, lesson patterns, pitch and pace, memorisation and assessment, to name a few. Each context, she argued, has its own unique array of ingredients with different levels of coherence. The Research School, comes closer to achieving coherency across the nested layers of influence of Bronfenbrenner's ecological model (1979). It has gone against the dominant narrative of failed implementation providing an illustration of how active learning practices have been enacted and mediated to fit the local context.

Conclusion

The power of DBR is that the findings are based on what people do during the intervention phase, not just what they say. This study presents a picture of teaching practice that is possible within the Maldivian education system. Bronfenbrenner's ecological framework provided a basis for understanding the various interacting layers of influence on teachers' practice. The importance of contextual factors is argued as being particularly acute for small states, given their distinctive characteristics and priorities (Crossley, 2010). Their 'smallness' raises challenges, yet also has some advantages, rendering more visible the layers of influence on teachers' practice within this island school.

The Maldives, as a SIDS in South Asia, provides an example of how LCP can be implemented; drawing on recommendations from the literature, acknowledging contextual conditions and developing a shared vision for change within the school community. As Schweisfurth (2011) asserted reform efforts are often focused on what is desirable rather than what is feasible. The design principles arising from this study elucidate what is feasible within this context and illustrate the enabling conditions

for active learning reform within the Maldives. These design principles may be of use to those implementing LCP in other low-resource settings where traditional transmission approaches prevail. Moving forward, it would be valuable to test the transferability of these design principles in other Maldivian schools. The school in this study was selected as offering 'optimum' conditions for implementing the intervention, therefore it would be useful to test the design principles within 'typical' school conditions and investigate their applicability in these schools operating within the same policy environment. Moreover, given global efforts to improve the quality of education, the findings from this study provide insights into the enabling conditions for pedagogical reform that can also be applied in other settings that seek to promote learner-centred approaches to education.

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Barriers to Effectiveness in the Classroom: Three Cases of Novice Teachers in Bangladesh

Amy L. Moyer and Jill Sperandio

INTRODUCTION

This chapter reports the results of research undertaken in Bangladesh to examine the implementation of teacher training initiatives and the transfer of this training to classroom practice. Bangladesh has been proactive in attempts to improve its public education system, and has achieved notable success in the areas of gender parity and universal primary school enrollment (Khan, Uddin, Rana, & Haque, 2014). However, the quality of public education remains a major dilemma (Ahmed, 2009; Hutaserani, 2008; Khan et al., 2014; Mullick & Sheesh, 2008). Attempts at integrating "best practice" teaching methods through several educational reform initiatives have met with limited success. While several explanations have been suggested—large class size, over worked teachers and the lack of

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basic resources—little research has been undertaken to identify the cause of teacher behaviors and pedagogical choices in the classroom.

Background

Bangladesh has one of the world's largest primary education systems with over 82,000 primary schools, which employ approximately 365,925 teachers. Further compounding the challenges of government sponsored schools, the dominant pedagogical approach has been described as lecture-based and teacher-centered, and teachers have been characterized as passive and lacking enthusiasm in their interactions with students (Ahmed, 2009; Ardt et al., 2005; Banu, 2009; Haq, 2004).

In Bangladesh, all government primary school (GPS) teachers receive training at one of the 57 Primary Training Institutes (PTI) located throughout the country and managed by the Directorate of Primary Education (DPE). PTIs train new teachers in general pedagogy and subject-based teaching methods over an 18-month course of study for the requirements of the Certificate-in-Education (C-in-Ed). Curriculum and assessment oversight are carried out by the National Academy of Primary Education (NAPE) and National Curriculum and Textbook Bureau (NCTB). Specifically, the NAPE develops the PTI's C-in-Ed (Certificate in Education) curriculum, organizes teachers training and conducts the C-in-Ed examinations. Additionally, the NAPE conducts educational research, helps with the development of curriculum for GPS and produces PTI textbooks. Similar to the NAPE, the National Curriculum and Textbook Board (NCTB) develops curriculum and produces textbooks; however, it is an autonomous organization under the Ministry of Education (MOE). The NCTB's chief responsibility is the development and renewal/modification of the primary education curriculum.

This study examined the problem of transfer of training to practice within the context of GPS in Bangladesh. Teacher training classes were observed at the government-operated training centers to establish the methods used to deliver teacher training and the pedagogical approaches supported during training. Subsequent observations in the classroom of three teachers who had undergone training were then carried out to establish the degree of transfer of training and the barriers to transfer that might exist. The following research questions guided the study: *What methods are employed in Primary Training Institutes in Bangladesh to facilitate transfer of learning about modern teaching methods from*

training to the classroom?; *What are the most frequent teaching methods used by novice teachers returning to the classroom after training?*; and *What do teachers perceive as influencing their choice of teaching methods in the classroom?* Recommendations of how best to improve the transfer of training through better alignment of training methods to the realities of Bangladeshi primary school classrooms conclude the report.

THEORETICAL FRAMEWORK

This research approached the understanding of teacher training through a lens of adult learning and learning transfer theories. Theories of adult learning have helped to shape workplace training and professional development activities for decades. In the 1960s, scholars of adult education coined the term *andragogy* in reference to the practice of teaching adults, versus *pedagogy*, the practice of teaching of children. This marked an important turning point for addressing the unique needs of adult learners. In Knowles (1980) theoretical work on andragogy, adult learners were described as self-directed and independent, having a rich source of knowledge from life experience, having learning needs related to their changing social roles, performance-centered, and motivated by internal factors. Understanding the intricacies of adults learning has aided in the creation of effective training programs in all career tracks.

The life experience adults bring with them into training can also pose a challenge to new learning situations. Knowles (1980) contended that adults have deeply ingrained experiences as students, which can affect their learning. Despite their internal motivation and independent nature, once adults return to the classroom, they may become passive and expect to be taught. They can also cling to perceptions about their ability to learn a particular subject matter. Accordingly, adult educators must establish a learning environment which differs from the childhood model both in physical space and in process. The physical environment should be organized to focus on the students rather than the teachers and facilitate group learning activities. The process should place more of the responsibility of learning with the student by using tools such as self-evaluations, learning inventories, and reflective writing. Additionally, learning activities should be experiential, emphasizing the practical application of knowledge and utilizing problem-centered activities.

The goal of adult training programs is for trainees to apply what they have learned into the work environment. For that reason, it is important

to consider the theory of learning transfer and the educational practices that effectively promote transfer. Learning transfer examines how newly acquired knowledge is transferred to new situations. It is often thought of as a critical thinking skill and a process of *generalization*.

Generalization refers to the ability to learn something in a specific context and later apply that knowledge to another situation. Kirwan (2009) stated that to successfully promote learning transfer, teachers should assess learning needs, create application-oriented goals and objectives, balance theoretical and practical content, and provide opportunities for repeated practice of skills. Other researchers (Engle, 2006; Lobato, 2006) suggested that learning transfer is the extent to which teachers frame transfer activities and promote *intercontextuality*. Specifically, Engle (2006) found that students' ability to generalize their knowledge was directly related to the framing of time and the degree of participation in activities which promoted intercontextuality. Through this study, Engle determined that transfer is aided to the extent that the learning activity is framed as part of continuous learning activities in which the students are critical participants. Studies (Masui & De Corte, 1999) on learning transfer and instructional design identified learning activities that have successfully promoted learning transfer. They include: embedding the acquisition of learning skills within the relevant subject context; linking activities of orienting and self-judging to the learners' goals; sequencing learning and teaching so that it becomes progressively self-regulated; using modeling, individual assignments, pair work, small group work, and class discussion in class; encouraging reflection and articulation of learning and problem-solving processes; and creating opportunities for practice and productive use of newly acquired knowledge and skills.

This research aimed to examine the extent to which teacher training, as supplied through the teacher training centers in Bangladesh, employs methods which address the unique learning needs and styles of adult learners, as well as promotes transfer of learning from training to the classroom. Are teacher trainees given the opportunity for repeated practice and self-reflection? Are their learning activities framed within a larger theoretical context and embedded with ample opportunity for practice? Are teacher trainees regularly provided with feedback and given goals for improved practice? Do they have opportunities with their peers to practice or model lessons followed by group discussion and reflection?

Literature Review

Adult learning and learning transfer theories are particularly meaningful when applied to the context of teacher training. The following literature review examines characteristics of effective teacher preparation programs and their relationship to theories of adult learning and learning transfer. This analysis is placed within the framework of teacher education in Bangladesh to identify practices which promote or hinder the successful transfer of teacher training to classroom practice in the research context reported on in this study.

Just as the teaching of theoretical models in conjunction with practical application is recognized to be effective in the learning transfer literature (Engle, 2006; Kirwan, 2009; Masui & De Corte, 1999), researchers of teacher training programs have also identified its importance. In Korthagen and Russell's (1999) theoretical examination of learning transfer in teacher education programs, the researchers compared "application of theory" models in teacher training to new approaches in mathematics education. For example, in mathematics education, it was widely accepted that theory of mathematics be taught prior to problem-solving activities. This method has been replaced by the "realistic mathematics education" movement, in which students first practice mathematics in authentic learning situations (hands-on problem-solving), then they examine the mathematics theory corresponding to the problem. Likewise, in a teacher training program at Utrecht University, greater learning was demonstrated (as measured by 14 criterions) for first year teachers when actual classroom practice was directly connected to educational theory rather than theory taught in isolation from practice. Green and Ballard (2010) undertook a case study of a school district and university partnership in Northeastern Texas where student-teachers worked as teaching interns for a full academic year, planning units, lessons, and assessments, as well as working with faculty and administrators in a professional capacity. During their year as teaching interns, student-teachers also learned about educational theory through their university course work. New teachers prepared through this highly experiential program were deemed far more competent than their traditionally trained colleagues and characterized by their respective school principals as more akin to teachers with three to five years of experience.

Supervision during teacher training is another crucial component to teacher transfer of learning and overall success of novice teachers when

transitioning from training to the classroom. In a meta-analysis of 12 studies spanning from 1977 to 2006, Scheerer (2008) identified four factors that are most likely to support the transfer and maintenance of teaching skills. This four-stage model includes the following factors: immediate feedback to promote successful attainment of skills: training to mastery of specific teaching skills; programs that actively promote generalization of skills; and supervisor feedback on performance in the classroom setting during teaching practicum. Scheerer's model emphasizes the role of a well-supervised practicum in effective teacher training programs. Likewise, Darling-Hammond and Baratz-Snowden's (2007) research identified the importance of training programs in which well-supervised practicums are held in conjunction with coursework in order to connect theoretical learning with practice.

Brownell, Ross, Colón, and McCallum's (2003) meta-analysis of effective practices in special education, teacher preparation programs used a framework based on two large-scale national studies. The framework consisted of seven practices which have been as identified as exemplary in 15 teacher education programs in seven different institutions. These are: (1) coherent program vision, (2) blending of theory, disciplinary knowledge, subject specific teaching methodology and practice, (3) carefully constructed field experiences, (4) standards for ensuring quality in teaching, (5) active pedagogy that uses modeling and promotes reflection, (6) focus on meeting the needs of diverse learners, and (7) collaboration as a vehicle for building professional community. These education-specific criteria are consistent with effective criteria identified in both adult learning and transfer of learning theories.

Training Teachers in Bangladesh: Two Examples

Innovative training methods, such as those outlined in the previous section, have met with success within the Bangladeshi context. For example, in a project developed by BRAC University's Institute of Educational Development and funded by Plan Bangladesh, researchers (Opel, Zaman, Khanom, & Aboud, 2011) applied a training intervention in primary schools in rural Bangladesh over the course of one school year. The intervention consisted of 96-hours of teacher training, in-class supervision, resources, and lesson plans for an innovative mathematics curriculum. Students in the intervention group (100) and control group (104) were given pre- and post-tests for each of the six units studied. Pre-test

scores for both groups were similar throughout the program. However, at the conclusion of the mathematics program, students in the intervention group had retained the skills they learned with the average score of 82.7% on the final cumulative test, compared with an average score of 46.6% by the students in the control group (regular mathematics program). The findings indicated that the regular mathematics program was "not sufficiently comprehensive, stimulating, or challenging" enough for the school children. Additionally, the instruction in the regular mathematics program relied upon repetition (counting out loud) and repeating facts after the teacher. The intervention program required students to solve problems, check their answers, generalize from one problem to another, and explain how they came to their answer. As a result, the newly acquired reasoning skills helped them to solve mathematics equations they had not previously seen.

Conversely, an earlier BRAC and Plan Bangladesh collaboration found greater difficulty in implementing changes when met with long-held beliefs on education (Nath & Mahbub, 2008). After receiving training and teaching aids, the researchers returned to the schools to find the materials unused and teacher-centered classrooms the norm; teachers did not use any of the new interactive approaches they were taught during the training. While the teachers stated that they knew the importance of using interactive approaches and teaching aids, they still believed that the way they learned in during their childhood "was the best way of learning, thus they followed the same" (p. 133). In a sense, the training curriculum challenged the teachers' beliefs and practices. The researchers discovered the culture of schools and learning requires continuous training and greater supervision.

In the first example, the year-long training and supervision model resulted in a demonstrated improvement to student learning. Whereas, in the second example, brief training without continued supervision and support resulted in a failure of the training objective. These studies not only illuminate how the training and professional development of teachers requires a dynamic approach, but also how it is bound by the larger school culture. Thus, administrative and collegial support are important to help teachers make the leap to more innovative teaching strategies, especially when the new approaches are contradictory to teachers' personal experience as school-aged learners and are not practiced by the majority of education professionals.

METHODS

The study used a qualitative two-phase design involving observation, interviews, and document analysis, and the construction of three case studies of Bangladeshi novice teachers in Dhaka District, Bangladesh (Creswell, 2012; Patton, 2002). Data collection included: site visits to three PTIs; interviews with PTI administrators and faculty; observations of training classes; three interviews with teacher participants; six days of classroom observations for each of teacher participants; and document review of curricular materials. The first phase was aimed at establishing the training methods used to achieve the goals mandated by Bangladesh government initiatives and delivered by the trainers at the PTIs. The second phase developed three case studies of novice teachers who had undergone the training and were teaching in GPS. The subsequent analysis of the data focused on identifying the barriers to teacher learning and transfer of teaching methods, and formulating recommendations for future practice at both the training and practice level that would enhance transfer to the benefit of student outcomes.

RESULTS

In the Primary Training Institutes

In Bangladesh, all GPS teachers receive training at one of the 57 PTI located throughout the country. The PTIs are managed by the DPE with curriculum and assessment oversight by the National Association of Primary Education (NAPE). The Diploma-in-Education program includes a one-year PTI-based program and a six-month practicum in a GPS. Generally, PTI instructors do not have experience as primary school teachers in government schools or elsewhere. Of the 44 PTI instructors in this study, 25 held Master's Degrees, 4 held Bachelors' Degree, and the remaining 15 were "professionally attached." Professionally attached instructors are recruited from the local area and are not eligible for promotion.

At all three PTIs, the classes were fairly large, with 50–85 teacher trainees. The methods of instruction both reported and observed included, question and answer, discussion, activities, projects, demonstrations, technology-enhanced presentations, multiple-choice questions, and group/

pair work. Instructors frequently used question and answer, directed at individual students or the whole class, as an anticipatory set method, for critical thinking discussions, and to check comprehension. A process called the "three-step method" was used to structure the class lessons in two of the 11 training classes observed. Demonstration and modeling, either by the instructor or students, was used in seven of the 11 training classes. Lecture only was the primary teaching method used in four of the 11 classes. All three PTIs had one technology-enabled classroom where lessons were supported with PowerPoint presentations projected onto a portable screen, two classes were observed where this was used alongside lecture. While the multi-media supported lessons were a good example of using pictures and videos to support student learning; unfortunately, most GPSs do not have technology resources. One interesting observation was the experimental primary schools located adjacent to each of the training centers. Experimental GPSs function like all other GPSs, but the primary school students are occasionally brought into the training center to participate in a model lesson with a PTI instructor. Typically, only a small group of 10–15 students participate in the model lessons. During the site visits, one science class had a small group of students participate in a modeled class with the PTI instructor.

Prior to annual examinations, instructors held revision classes, where student-teachers reviewed material in preparation for their examinations. In these classes, instructors used whole class question and answer and rote repetition of facts to prepare. In two of the classes observed at one PTI, the instructors were quick to inform me that the class was a "revision class" in preparation for an upcoming examination, and there was "nothing to see." The instructor seemed to acknowledge the fact that the class was not as interesting and dynamic when reviewing information, but in the Bangladeshi context it is considered necessary, nonetheless. In the revision classes observed, they used rote repetition and comprehension-based questioning to prepare for examinations. Likewise, with the test and text book so closely linked, instructors expressed that it is necessary to work directly from the text book and not deviate during their review, lest students not be prepared for their examinations. It is clear that the PTI training curriculum in Bangladesh is test-centered and driven, which has an undeniable influence on teaching style.

In the Classrooms

Case 1: "Without any improvement in conditions, I do know how I can improve my teaching."

Pori (the names of all participants are pseudonyms), the participant in first case study, held a Master's Degree in English Literature. She completed her training at the PTI two years prior to this project and has been teaching for the past two years at Janalaganj (the names of all schools and training centers are pseudonyms) GPS. Here, Pori taught grades 2, 3, 4, and 5 in English, Science, Bangla, and Math during the afternoon shift. Pori's classes had an average 43 students in attendance over the observation week. There was no bell or system to notify students and teachers of the time, and as such the posted schedule differed greatly from the daily reality in the school.

Pori's main instructional technique in her classes was question and answer, directed to individual students or the whole class. Three question types—rote/repetition, comprehension, and critical thinking— were asked in a total of 20 class periods over four days. Of those questions, 80% were used for checking student comprehension, 16% were rote-based required only memorized or repeated information, and the remaining 4% were critical thinking questions.

On one occasion, Pori used the teaching resource *English in Action,* audio recordings of native English speakers for pronunciation. She noted that the students were more interested when the audio lessons were new, but at the time of the observations it failed to hold their attention. When inquired about the use of teaching aids during classes, Pori reported that the students have "grown bored" with the resources so she does not use them very often. The head teacher at Pori's school referred to the use of resources in the classroom as a way to "give the teacher a break." Pori reported that managing a large class had the greatest impact on how she teaches. She explained,

> The students don't learn to read or write at home and they need intensive help, but there are too many students in the class. There is also a problem of the students misbehaving because they come from poor families and they are not taught how to behave. For these students class time is play time.

Of all Pori's class, there was one where her teaching performance dropped dramatically. In this class, there were more students than her

other classes (average 45 students); the classroom was located on the first floor, with little natural light and no available electric lighting; the room was very hot with no operational ceiling fans due to daily "load shedding" (systematic power outages to conserve electricity) that occurred every afternoon during this class period. In this cramped, dark, and hot environment, Pori spent less time on direct instruction and questioning than in her other classes. Additionally, in this class she only called on students in the front row, whereas in her other classes she called on students throughout the room. She ended this class 10 minutes early on five of the six days observed. In the post-observation interview, she explained the difference teaching that particular class stating, "When the environment is not on my side, I feel it is very difficult to do my job."

During the interviews, Pori pointed out problems at her school, namely, poor leadership. Students and teachers often went to class late (typically 10 minutes after the official start time). Some classes were left without a teacher, and students were loud and unruly. Between classes students ran around the hallways, disrupting other classes. Discipline throughout the school was lacking from the top down. The head teacher was not present on four of the six days we were at the school. She explained, "I don't have any channel or process to inform those in authority about the problems I face." Pori appeared very discouraged about her ability to create positive change within her current teaching assignment.

Case 2: "I use a lot of activities that promote student participation."
The second case study follows Bilkis, a graduate from Nodipur PTI and a teacher at Jutara GPS for three years. She is the newest teacher at Jutara GPS. Bilkis is one of two 5th grade class teachers. She teaches four regular curriculum classes each day and one 5th grade coaching class in the afternoon. Her classes include, 5th grade Bangla and Science, 4th grade Social Studies, and 1st grade English. Jutara GPS was a bright, spacious school located along a major road. The school operated on a single, mixed-gender shift. The school utilized a bell to facilitate class changes, and as such, all of the classes observed followed the posted schedule. The average attendance in Bilkis' classes during the observation week totaled 34.

Bilkis used a variety of teaching methods based on the learning objectives of her classes. Bilkis made repeated reference to the importance of student learning throughout her pre- and post-observation interviews.

She used whole class brainstorming, group work, question and answer, and experiments. Her lessons were engaging and students stayed on task throughout the class period. She also made frequent use of teaching aids and resources, such as models, posters, charts, flash cards, and other materials. She explained that the teaching aids helped the students learn and remember the lesson. She used her planning time to prepare or gather resources. She also kept a lesson planning journal for new lesson ideas. When asked what had the biggest impact on how she presented a lesson, she said, "The ability level of students, some students are so fast and others are slow, or have a weaker ability. I have to consider and think at their level when planning a lesson." Bilkis consistently provided thorough feedback to all of the students when marking their work. Bilkis used the available resources in a school resource room to keep the students on task and interested throughout the class period. Bilkis also used items brought from her home, such as tea cups and hats, for a lesson on counting. Bilkis frequently moved students at the beginning of class, so they were not too crowded and the shorter students were seated in the front so they could see well.

Over 24 class periods observed, when Bilkis used question and answer with her classes, 53% were comprehension checks, 36% were rote/repetition, and 11% were critical thinking. In the post-observation interview, Bilkis' explained rote instruction was necessary for the younger students, whereas more innovative teaching strategies could be used with the upper grades,

> They are too little and their ability level is very low. I try to vary how they are memorizing, like today when counting "1, 2, 3, 4, and 5" I also did it backwards and other ways "one, one, one, two, two, two, three, three, three", and so on. I also tried to confuse them, "one, two, three, four, one….", and then they had to "correct" me. I had the students choose the flash card and say the number to the class. I also believe more resources would help me vary my teaching techniques with this class, rather than memorizing. But overall, Grade 1 students are too young to think critically or brainstorm. It's not possible with grade 1 because I have to consider their level of understanding.

The culture of learning at Bilkis' school was focused on students, as well as teacher professional development. The teachers at Jutara GPS instituted an informal professional learning community at their school.

Once a week, one teacher would model a successful lesson and the teachers would share instructional strategies. In addition, after Bilkis' participation in this research project, the head teacher at Jutara recommended her as an exemplary teacher to lead the sub-cluster training at the Upazila Resource Center. In fact, throughout the research at Bilkis' school, the head teacher was supportive and engaged.

Case 3: "Discipline is the most important thing for the structure and success of the class."

Rashid, the teacher in the third case study, began as head teacher at Nakoli GPS nine months prior to participation in this study. As a head teacher, Rashid did not teach a full class load of class, but he did teach 5th grade mathematics coaching class which was a national primary school examination (Primary School Certificate) preparation class. For the benefit of this research, he also taught an additional class (2nd grade mathematics) twice during the observation week. The average attendance during the observation week totaled 32 students per class.

Rashid had high expectations of student learning in the preparation for the grade 5 exam, which was to be held the week after the observation period. Because of that, his lessons were focused on test success. He primarily used question and answer and student board work. He also had the students choose the problems they wanted to practice. During the post-observation interview, he acknowledged his teaching style was limited, but found it necessary for the students to do well on the examination. He explained, "I would like to use more teaching aids. But chalk, eraser, pointer, and blackboard are also teaching aids in our country, in my perspective."

During the observation period 76% of the questions used in teaching were comprehension checking, 21% were rote/repetition questions, and 3% were at the critical thinking level. During the post-observation interview, Rashid explained why he preferred the use of rote memorization as an instructional strategy,

> I like to make them remember the questions by repeating them because it makes it easier for them to understand and it explains the problem. They will have the same type of questions on the examination and know how to solve the problem.

Rashid did value critical thinking and appreciated how it would help the student beyond the exam. He explained, "I like to make them think

more than the examples in the book, take the problems a step further and think critically."

Beyond teaching methods, Rashid was kind to the students, but serious in his demeanor. He valued classroom management and maintained strict control of the class at all times. This carried over to the whole school environment. The school was kept clean and ran on a firm schedule, maintained with a bell to signify class changes.

Summary of Findings

Training in the PTI—What Learning Has Transferred?

Instructors in PTIs face similar challenges to teachers in primary schools, namely, poor physical conditions, such as inadequate classroom facilities. Also, large class sizes, limited teaching resources, and the test-driven curriculum keep instructors from using innovative teaching strategies. For these reasons, instructors at PTIs do not always use or model the teaching methods they teach theoretically. Curricula that refer to using greater participatory methods, such as using group/pair work, student modeling/projects, and posing challenging critical thinking questions are mostly taught in theory. One of the greatest resources at the PTIs was the experimental school on the premises; however, it was not used to its fullest potential. The experimental schools hold the promise of more direct modeling of training and, more importantly, teaching new teachers how to reflect and modify (re-teach) as professional practice.

PTI instructors are overextended. For example, they teach eight, 40-minute classes each day of the same content matter. In addition to a heavy teaching load, instructors must visit student teachers at their schools for formal observations. To further exacerbate the problem, instructors find the curriculum stale and uninspiring. Because teachers and school administrators do not have the authority or the necessary training, they do not innovate beyond the textbook. PTI administrators and instructors clearly recognized the problems in the system that adversely affect the quality of training, but are powerless to make necessary changes.

After Training—Novice Teachers in the Classroom

All three teachers used the three-step method to structure their classes. Additionally, question and answer was used often by the teachers as

a way to engage students and easily assess student comprehension. Likewise, the teachers used rote level question and answer at times, while rarely questioning students at critical thinking level. During the post-observation interviews, the teachers explained that rote questioning was primarily used for two reasons. First, when the teacher considered the concepts too difficult for students to grasp, and second, for test preparation. This indicates that the teachers have a lack of trust in the students' ability to think critically or problem solve without memorization. This lack of trust is deeply embedded in the learning culture of Bangladesh; hence, the ubiquitous practice of memorization for examinations at all education levels.

Frequently, Bilkis and Rashid turned the blackboard over to the students to contribute to discussions or demonstrating problems. Pori had students solve problems at the board less frequently, and this technique was usually reserved for mathematics class. Bilkis and Rashid considered how students learn concepts best when planning lessons. Bilkis used teaching aids and resources with every lesson; whereas, Pori considered them a classroom management tool. Both Pori and Rashid were more resistant to using cooperative learning strategies that challenged their conception of how a classroom and learning should be managed by a teacher.

Bilkis was the most innovative of the three teachers. She was creative in her use of anticipatory set questioning, brainstorming, group work, kinesthetic activities, and demonstrations. She was open-minded and thoughtful in her lesson planning. She considered how to engage her students, how they would best learn the concepts, and what resources she had available to accomplish the learning objectives.

Why Novice Teachers Teach the Way They Teach

Pori perceived classroom management and the physical conditions of her classroom (large class size; small rooms) as the greatest influence on her teaching practice. She cited the conditions—power outages, cramped and overcrowded classrooms, and no resources—as a source of daily stress. This was directly observed when she taught in the classroom without power or natural light. Furthermore, during her pre-observation interview, Pori stated she wanted to do more interactive lessons using games and individualized contact; however, she felt this was too challenging with so many students in her class. She felt the students were misbehaved because they had no play yard or physical education class.

Bilkis consistently referred to the learning needs of her students. This is what influenced her teaching style. This was directly observed in her willingness to use a variety of teaching methods to meet the students' learning needs. For Bilkis, helping the students to understand and apply the concepts they learned in her class to their life inspired her. She used resources as tools to help her students learn.

Compassion for his students influenced Rashid's teaching style. He was a serious, dedicated professional that was empathetic toward his students and wanted to help them succeed in life. Rashid frequently mentioned the poverty of the students, as well as their future prospects with and without education. Rashid did not dwell on the challenging conditions of government schools; rather he focused on how he could help motivate the students to be successful.

Discussion

The dominant teaching style used by the three teachers in this study observational findings indicate that the teachers in this study chiefly used the teaching strategies taught at the PTIs which were (a) modeled frequently by PTI instructors; (b) easily implemented within similar classroom contexts, such as question and answer for large groups of students; and (c) similar in learning objectives, such as test preparation. Additionally, the three-step method of structuring a lesson was used the majority of the time by all of the teachers. The three cases show that new teachers are able to transfer what they learn in training; however, the current PTI training does not challenge the status quo in pedagogical practice in order to make consequential improvements to the quality of primary education.

Professional Identity

How the teachers in this study viewed their professional role shaped the teaching methods they used. During the interviews and observations, when the teachers discussed their approach to teaching and student learning, they reiterated the following role conceptions of themselves as teachers—as a *manager* of classroom behavior (Pori), as an *inspirer* of student learning (Bilkis), and as a *motivator* of students for their future well-being (Rashid). While professional identity was not considered a factor when constructing the theoretical framework, during the course of

the research, teacher professional identity emerged as a prominent indicator of how teachers approached their role as teacher. However, the conceptualization of adult learning is not all together separate from an understanding of professional identity. Specially, the role of learner-directed practices, needs assessment, and self-reflection. Furthermore, research (ten Dam & Blom, 2006) on the development of teacher professional identity found that school-based collaborative programs help teachers develop a positive professional identity within a community of learners. This is also evident when examining the differences in classroom teaching in this research. In those schools that supported collegiality (second case study), the teacher was more focused on student learning and trying innovative teaching strategies to best assist student learning, as compared to the school (first case study) where teacher professionalism was not encouraged or fostered.

Furthermore, the level of professionalism displayed by the teachers was reflective of the professionalism displayed by the head teacher at each school. In fact, the head teacher had a strong impact on the overall school culture, and ultimately the culture of learning in the classroom. In the two schools with strong leadership, the teachers were more focused on student learning. School conditions, which were another reflection of school leadership, also influenced school culture and teacher motivation. This was most evident in the dichotomy of Pori's and Bilkis' cases. The poor condition of the school in the first case study caused the teacher great distress and directly affected her teaching. Pori expressed her despondence in her inability to bring about positive change at her school. Conversely, the school in the second case study, Jutara GPS, was highly visible and visited regularly by government representatives, thereby increasing pride in the school. Furthermore, the frequent visits at Jutara GPS resulted in a more authentic accountability than is common at GPSs.

School Leadership

The effect school leaders have on teachers, and consequently student learning, has been the focus of a great deal of research interest in the U.S. and abroad. In this study, the impact the head teacher had on shaping the learning culture in each school was undeniable. At Jutara GPS (second case study), the atmosphere of the school and classroom was student-focused. Teachers shared lesson ideas and observed other

teachers' classes both on their own accord and as part of an in-house professional development program. The head teachers' support and encouragement of the teachers empowered teacher leadership and thereby improved the culture of learning at Bilkis' school. Research (Horng & Loeb, 2010) from the U.S. established that schools with consistent gains in student achievement have principals who support teachers and direct resources toward professional development. Encouragement of teacher leadership has also been found to be a crucial component of school improvement (Hart, 1995; York-Barr & Duke, 2004). Teacher leadership empowers teachers to create meaningful change in their environment using their expertise and knowledge.

Also, school-based professional development programs, like the one established previously at Bilkis' school, provide teachers with the opportunity to practice new teaching methods, observe other teachers, and reflect on their teaching. This is akin to the professional learning communities' (PLC) concept used in US schools. Empowerment of schools and *upazilas* to create in-house professional development is even more crucial in Bangladesh where the centralized system often fails to provide needed resources and timely professional development. It is also noteworthy that Bilkis was recognized and honored for being an innovative teacher at her school.

Recommendations

In order to influence teachers' professional identity and foster professional traits associated with an effective teacher, PTIs must implement self-reflection, collaboration, and modeling strategies throughout the training program. Self-reflection is instrumental to the process of developing professional identities of teacher trainees (Masui & De Corte, 1999; Schulte, Edick, Edwards, & Mackiel, 2005). Collaboration during training has also been cited as a crucial element in the development of professional identities and behavioral practices of new teachers (Brownell et al., 2003; Green & Ballard, 2010; Korthagen et al., 2006). The literature on learning transfer and teacher training consistently recommends modeling pedagogical techniques during training and professional development (Brownell et al., 2003; Korthagen et al., 2006). Researchers (Green & Ballard, 2010; Korthagen & Russell, 1999) recommend teaching educational theory in conjunction with direct practice during training. This could be easily accomplished with the PTI experimental schools. Small cohorts of teacher trainees could be paired

with experimental school teachers for regular classroom observations of experienced primary school teachers as well as short practice teaching session for the trainees. Furthermore, trainee cohorts could also function as collaborative groups that work together on instructional planning and providing critical feedback to one another. Thus, modeling, peer collaboration, practice teaching, self-reflection and critical feedback could all be easily implemented, through a reallocation of resources and a redesign of the training program, to support learning and learning transfer.

Instructional leadership training for Head Teachers in the GPSs is essential for promoting programs that support teachers and are focused on student learning. Effective school leaders offer assistance to new teachers by coordinating collaborative programs (mentorships and induction), organizing in-house professional development, and encouraging collegial sharing. Mentorships and collaborative programs for new teachers not only bridge the training to practice gap, they send a message that the training was valuable by re-affirming and putting into practice concepts learned during training, thereby promoting learning transfer. Recent studies (Hoque & Alam, 2011; Opel et al., 2011) in primary and secondary schools in Bangladesh have found success with school-based professional development programs that focus on collaboration and peer observations.

Limitations of the Study and Direction for Future Research

Case study research is inherently limited due to its inability to be generalized to the greater population. This study is limited by the use of a case study approach and purposive sampling. While time and research resources were limited, a manageable sample size of three teachers allowed for more frequent observation visits and interviews. With the exception of extremely rural GPS teachers in Bangladesh, the findings of this research are representative of the situation of GPS teachers in Dhaka and other cities as the centralized system creates uniformity across PTIs and GPSs. The exception to this uniformity is the influential role of individuals in schools. Given the instrumental role the head teachers in this study had on creating, or not creating, a culture of learning, future research on quality in the primary education sector in Bangladesh could examine more deeply the impact of the head teacher on teaching practice, student learning outcomes, or school community. While educational leadership studies are ubiquitous in the U.S., research on school leadership in Bangladesh is extremely limited.

CONCLUSION

The findings indicated the need for PTI training to more formally address the professional identity of new teachers through self-reflection, collaboration, and critical thinking in training. Leadership training is needed for GPS head teachers. As effective instructional leaders, head teachers will be empowered to implement in-house mentoring and professional development programs, and foster a culture of learning where teachers are focused on student learning. Also, it was found that schools with greater visibility and accountability were more successful at creating a culture of learning in the school and classroom. School leaders and teachers that are trained and empowered to create positive change are the direct link to successful reform initiatives. However, the importance placed on national examinations, which all require lower-level thinking and memorization, will continue to undermine improvements to educational quality. If quality improvements in education are the goal of government initiatives, then it is necessary to put aside ambiguous policy language such as "increasing child-friendly and participatory teaching techniques." Quantifiable improvements should be centered on evidence-based program components during training and at the school sites. The literature supports training that includes self-reflective practice, integrating practice and theory, and peer collaboration. Given the crucial role of school leaders in developing a culture of learning and professionalism at the schools, targeted leadership training is also necessary. Bangladeshi PTIs and GPSs already have innovative program elements in place, such as experimental and model schools, but they need to function in a more comprehensive way. Wasteful management practices and corruption need to be addressed so that the funds dedicated to primary education are reaching the intended objective, namely, improved quality of education for more than 16 million primary school students.

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Empirical Research
on Teacher Education in South Asia

People, Not Numbers: Using Data to Humanize and Strengthen Teacher Support Systems in India

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India is a country where numbers speak for themselves: a population of 1.3 billion has the country's borders filled to the brim with potential. The fundamental right to education is enshrined in the Right of Children to Free and Compulsory Education Act (2009) that mandated free and compulsory education for children between 6 and 14 years. The size, scope, and diversity of the country's educational systems, both national and state-specific, impart not only complexity but urgency. Over the last 71 years, while the country has made great strides toward equity, accessibility, and quality in education, it has continued to face challenges

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in ensuring quality education at scale (Spier, Leenknecht, Carson, Bichay, & Faria, 2019). Despite the swell of enrollment at the primary level, only 57% of children have matriculated to secondary school, with only 16% entering tertiary education (UNESCO Institute of Statistics, 2019).

While some states fare better than others, the Indian education system is struggling to find the capacity to foster effective teaching. In primary education alone, there are over 2.6 million teachers in the system (Government of India, 2019). The country's in-service training system is overwhelmed, and the quantity and quality of most teacher professional development (TPD) has not met the pedagogical needs of teachers (Kidwai et al., 2013). Consequences of absent or overworked teachers have manifested in low student attendance and learning (Singh & Sarkar, 2015). Despite expressed intentions at the national and state levels for teacher training to emphasize peer learning, self-reflection, and child-centered teaching (NCF, 2005), teacher training has continued to be theory-based (Gupta, 2017; Verma, 2018).

At the district level, teacher in-service training is the responsibility of several agencies, including the State Council for Education Research and Training (SCERTs) and District Institutes of Education Training (DIETs). While DIETs also serve as the conduit through which data on students and teachers travel to the state and national level, they do not engage with it. Additionally, Cluster Resource Coordinators (CRCs), Block Resource Coordinators (BRCs), as well as TPD and training agencies often collect and pass data along, emphasizing head-counts more than analysis and interpretation.

To improve two pressing issues need to be addressed: (1) High-quality data on teachers is needed for self-reflection and continuous improvement of teaching practices along with support for those changes from their colleagues; and (2) Districts need to start regularly leveraging available data for system improvement. There is interest at the national level to bring change but the inertia within existing structures has made it difficult to translate intentions downstream. The question then becomes: how can this top-down system be altered to effect change that reimagines the way data is utilized to support district and school-level needs?

This chapter details the Piramal School of Leadership (PSL) approach to cultivating meaning, learning, joy, and pride in stakeholders in the system by focusing on aspects of self-motivation and engagement through a holistic lens (Kaivalya Education Foundation, 2018). Programming is based on a unitary goal: to work with teachers, principals, district, and state officials to support meaningful behavior change that will improve the quality of the education that children receive. PSL's approach is

operationalized through an array of connected programming that focuses on leadership, improving motivation, and leveraging technology. Undergirding these tactics is a humanist, data-supported philosophy that places emphasis on meaningful, reimagined utilization of data at each level of the education system. People should be served by data; not the other way around. Using a case study approach, we will illustrate how this approach has brought about a unique response where actors at each level in the system have begun to reimagine the scope and prospect of their roles within the education system.

Systems Change Is Possible: A Theoretical Perspective

Frameworks to bring about meaningful change in education service delivery and programming that flourish in spite of challenges remain elusive. From successful education systems that do exist,[1] we recognize that the delivery of sustainable, high-quality education rests not just on the better functioning of the individual components of the education system. Rather, it rests in the way "capacity building, learning in context, lateral capacity building, sustainability, and systems leaders in action—leaders at all levels engaged in changing the system, [are] changing their own context" (Fullan, 2007, p. xii).

As we seek to reconcile these realities, we turn to dynamic systems theory. It hypothesized that multiple levels of interaction between individuals and systems can influence behavior; therefore, sustained behavior change can only be enacted through frequent, simultaneous changes that are reinforced at multiple levels of the system (Yoshikawa, Wuermli, Raikes, Kim, & Kabay, 2018). Understanding holistic systems functioning is imperative if we are to identify the effects of interventions used to enact changes to specific parts. Relatedly, understanding the fundamental relationships within the system have been critical for identifying points of intervention (Kroelinger et al., 2014). The fields of cybernetics, developmental science, and psychology have presented some prominent models and viewpoints for applying systems theory (e.g., Bronfenbrenner, 1979;

[1]A recent comparison of public education delivery systems indicates that the Republic of Korea and the Republic of Singapore stand out for their education system outcomes, especially high learner preparation of students entering primary school. These countries also differentiate themselves in the caliber of their governance, accountability, and leadership in their education systems (World Bank, 2018, p. 23).

Maruyama, 1963; Masten, 2007; Thelen & Smith, 1994). There have been far fewer instances of systems thinking being applied to human development programs and policy implementation at scale (Lundberg & Wuermli, 2012; Yoshikawa & Hsueh, 2001), and only very recently have we seen an example for education at scale (Yoshikawa et al., 2018). Yet, we already know that education systems consist of complex, nested settings—classrooms, schools, districts. The social processes within and between these settings can impart an understanding of how each setting operates (Seidman, 2012; Tseng & Seidman, 2007), and by extension, the workings of the broader system in which they are couched. For change to happen, the social processes or social regularities of the setting must change (Seidman, 1988). Sustaining that positive change then becomes the practice of "*balancing* by integrating or adjudicating conflicting situational demands" (Maton, Seidman, & Aber, 2011, p. 65).

Recognizing and understanding the broad challenges that a system faces becomes an important first step. This allows for a more comprehensive and targeted approach to systemic change. An anthropomorphic take on a "breathing" system is not far from the reality of an education system and its various parts that are engaged in independent and co-creation of knowledge, feedback, and learning. The "body" of the system can shift to assume a new reality as constructed by these interactions. We know this about the neural network within the human body—medically, it is possible to localize the area that is causing pain, yet physiologically, the entire body experiences and reacts to the pain. Similarly, it is possible to localize the underperforming parts of a system, but the entire system adjusts and reacts to the dysfunction of those particular parts.

This internal complexity of a system means intervention design must also account for and anticipate the multiplicative effects of feedback within the system (Marayuma, 1963). This is because the system's feedback enters into its collective memory of what has changed how and what parts remain the same. The power of feedback has been amply demonstrated in many domains (see, for example, Berwick, 2003; Glisson, Dukes, & Green, 2006; Lingard et al., 2008) as well as in education (Allen, Pianta, Gregory, Mikami, & Lun, 2011; Becker, Bradshaw, Domitrovich, & Ialongo 2013; Cappella et al., 2012; Seidman, 2012; Yoshikawa et al., 2015). Here, the ethics of intervening are a significant consideration. Interventions naïve or ignorant of embedded structural hierarchies such as power dynamics, astringent political economy, and social inequalities can create feedback loops that actively undermine the positive change intended.

Fullan and Quinn (2016) have tied together these reflections on system dynamics with one word—coherence. They have posited that a "shared understanding" about the role and responsibilities assigned to each contributor in the system must be developed for a system to change course toward meaningful change. Concomitantly, "*simplexity*" (Fullan & Quinn, 2016), or the breakdown of complexity of the system to smaller and integrally important parts, allows key players in the system to understand the importance of their roles and the contribution they are making to the broader system. This perspective is suited to the state systems with which PSL works. The inertia experienced by many state systems belies a lack of "coherence" and is symptomatic of the irregular disposition of the respective components toward the goals of a single education system as a whole.

Challenges to Teacher Professional Development in India

Next, we present a bird's-eye view of PSL's TPD efforts in India. Currently, PSL supports schools in 14 states of India. The organization serves more than 300 thousand students in over 4500 schools by embedding within the multiple layers of the education system across the states. On the ground, TPD support across the country can best be described as variable. While TPD programs are sometimes tailored at the state level, most are not customized to school or even district-level needs. For example, in Surat, Gujarat, multi-language schools present a complex endeavor for TPD providers in the area, as most TPD does not support this linguistic diversity. Cumulatively, two primary challenges that appear to hinder the effective implementation and maintenance of quality TPD programming in India are, (i) the cut and replace cycle and (ii) use of data as currency.

Challenge 1: The Cut-and-Replace Cycle

Removing one part and replacing with a new one is a common approach to systems change in the TPD arena. The cut-and-replace strategy is attractive for both the potential to introduce novelty to the system and the belief that TPD components that worked in other contexts will autonomously thrive in a new one. What often gets overlooked is an emphasis on and integration of the individual and contextual learning that must accompany change and ripple through the system. The resultant patchwork of TPD often leaves teachers with an unclear understanding of what standards they are expected to meet. Furthermore, the cut-and-replace cycle also limits agency. As

administrators, principals, and teachers understand their roles as *recipients* rather than *active contributors* to the functioning of the system, they stop contributing to the improvement of the system. PSL has found that most people can self-assess their performance and evaluate themselves against the required skills for their position. However, most struggle with closing the gap they have identified between where they are and where they aspire to be professionally. In accountability-focused systems, where these gaps are recognized as personal ineptitude, people dissociate because they find little support in the system to help themselves improve. Attending system mandated trainings then become a chore, not opportunities for improvement. When TPD ultimately does not work, reformers are quick step in to "fix" the system by replacing with new parts. Thus, the cycle continues.

Challenge 2: Data as Currency, Not Agency

Data in all forms hold a privileged position in this hierarchy of knowledge for policy and practice decision-making. In education, performance data hold the top spot. District managers use performance data to evaluate schools, and data is used as currency to exert influence, compel acquiescence, and institute accountability. In state education systems throughout India, data travels from the bottom to the top. District-level agencies serve as the main conduit through which school data travels to the state and national level policymakers. CRCs and BRCs often collect and move data on children upto the district hierarchy, disregarding most opportunities for analysis and interpretation for their own planning. A consequence of passing data along in a relay race is the fragmented picture the CRCs and BRCs hold of the scope and possible uses of data they hold. Schools tend to know even less. One persistent concern teachers convey is their anxiety about what their own data profile looks like. Another concern expressed by principals is not knowing the threshold required for their school to remain in good standing. Data are viewed as subjective, rather than objective measures of performance. There exists a demand by teachers to create a participatory approach to data use in evaluation; however, resistance to address this power differential by those in higher ranks is immense. What leverage would district managers have over the schools if the principals started to evaluate their own performance as well as that of their school?

Reimagining Systems Change in India: The Case of Gujarat

In practice, the challenges noted above are not independent but intersectional. Therefore, PSL has taken the Fullan and Quinn simplexity approach toward system change with feedback at its core (2016). Using the state of Gujarat as our case study, we identify some key impediments hindering the effective delivery of education and examine some potential levers for change (the simple part). Then we demonstrate how PSL's approach is bringing about change in the state by putting the right drivers in action and making them work together under real-world pressures and dilemmas (the complex part).

Administrators, principals, and teachers across Gujarat describe a gap between the different levels of system as an impediment to understanding the role that they truly play in education service delivery. Teachers feel responsible for student learning, but see their authority limited in terms of helping their students outside the classroom. Similarly, administrators at the district level aspire to do more for students but were unsure how to customize support for each school. The complementarity of these aspirations was previously unrecognized when thinking about systems change in Gujarat. Earlier, we stressed that changing the social regularities in the different levels of a system is a powerful way to bring sustainable change in a system. Seidman and Tseng (2011) noted that over time these interactions or transactions reinforce not just the pattern of behavior but also the individual's assessment of the role they hold in the setting. Fullan and Quinn (2016) furthered this idea by noting that leaders can impact change by adjusting systemic regularities that originate from their position. Thus, PSL has sought ways to aide district administrators, principals and teachers to reimagine their roles. Making use of education data across all levels was one way of achieving this.

Part of that effort was also identifying what data were absent from Gujarat's education system. The organization conducted a broad needs analysis in schools and found that crucial school-level data were largely missing. Administrators, principals, and teachers had little knowledge of the granular needs of each teacher in each school. Taking a targeted approach to meet this need and adding only tools that could be fully integrated and supported, PSL introduced three targeted instruments into the Gujarat school system which we expound upon later in this chapter.
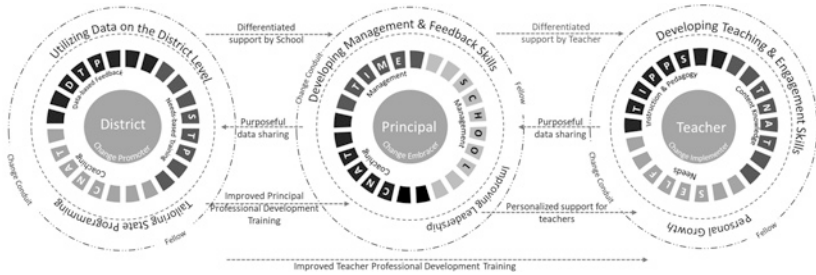
Fig. 10.1   Reimagined professional development system

Furthermore, PSL has been working to change not only self-perceptions but the general perceptions around the roles of key stakeholders in the system, taking them beyond traditional labels of district administrators, principals, and teachers. As *Change Promoters*, district and other administrators espouse the idea that as part of their roles, they promote new or revised ideas, approaches, and methods to improving education delivery. As *Change Embracers*, principals lead by example in the school, embracing new or different methods for school management, instruction and student engagement. As *Change Implementers*, teachers as primary education providers develop and build their instructional and pedagogical knowledge in new or different ways to further both student learning as well as their own professional career. Finally, to tie these efforts together, PSL scaffolds the change process through a team of dedicated *Conduits of Change*—Gandhi Fellows (Fellows)—who are temporarily integrated into the system. Figure 10.1 is the visualization of the forthcoming discussion on the reimagined system, emphasizing the role of key stakeholders and purposeful use of data.

Quality Data Tools for Quality Change

PSL's approach to change is built upon instruments that are geared toward in-service development. This means all instruments must primarily serve as TPD anchors, with secondary purpose of tracking teacher effectiveness. Because teachers are continuously honing their skills, these measures are routinely evaluated by both developers and teachers to evaluate their fit and usefulness in supporting teachers' needs.

The Teacher Instructional Practices and Processes System (TIPPS)
The TIPPS is a classroom behavioral observation system developed at New York University (Seidman, Raza, Kim, & McCoy, 2014) and adapted to support the needs of Gujarati teachers. The nineteen items in the tool focus on core instructional practices and classroom processes (Seidman et al., 2014), providing a holistic picture on the quality of teaching and the learning environment in the classroom. Teachers in Gujarat were already familiar with classroom observation, but as an accountability measure, not as a feedback and support tool. While the notion of feedback was appreciated by district administrators and teachers' unions, many were hesitant to implement a form of data collection that was perceived to be used to undermine school and teachers respectively. In an iterative process that included stakeholders, PSL built a self-reflection protocol around the TIPPS. Teachers are trained to use the TIPPS to evaluate their classroom footage and reflect upon the quality of instructional practices and the learning environment. As the teacher works toward skill development and improvement, the Fellow or principal becomes a thought partner in evaluating his or her classroom and instructional performance.

Teacher Need Analysis Tool (TNAT)
The Teacher Need Analysis Tool is a tool that helps evaluate teacher content knowledge in language and mathematics. The TNAT consists of an item bank linked with the skills and sub-skills that students are expected to learn in class 2 through 7 in language and math. For each teacher, the TNAT is adjusted to the class they teach. Like the TIPPS, the TNAT is used as a reflection instrument by the teacher and a supportive peer, administrator, or coach. In a safe, nonjudgmental environment, the teacher works through his or her difficulties with content knowledge, learning, revising, and clarifying concepts.

Coaching Need Analysis Tool (CNAT)
The Coaching Need Analysis Tool is a reflection-based measure for administrators and principals to evaluate their coaching abilities. A multiple-choice questions-based tool, CNAT is designed around coaching competencies such as problem-solving, providing feedback, and planning. In Gujarat, and the broader Indian education leadership context, providing feedback to teachers is uncommon. Even administrators, with responsibilities toward teacher development, often do not think that

coaching teachers is their responsibility. The CNAT is structured so that it can be used both as a self- and mediated reflection instrument so that administrators feel comfortable using it, even if they hesitate to reach out to others for help with their coaching abilities.

Changing Chaos into Coherence

Building on the Fullan framework (Fullan & Quinn, 2016), PSL has systematized self-reflection as part and parcel of the roles individuals play in the education system. We explain this shift by highlighting the key systems actors from the district level down to the school and how these actors are utilizing reflection to find coherence with one another and, in turn, the system.

Change Conduits: Gandhi Fellows

As part of a civically focused, education improvement fellowship, Gandhi Fellows shoulder the responsibility of building capacity within the district education system in which they are couched. Their superordinate goal is to support different levels of the system to embrace learning. Fellows go through a series of trainings that prepare them to adapt to a new community as well as to specialize in teacher observation, feedback, and needs analyses. In particular, stirring joy is considered a crucial skill for Fellows working with teachers, school, and district leadership in order to ensure that problem-solving is always approached with optimism and hope for the future. Fellows are also embedded in both school and community for a two-year commitment.[2] Incredibly, there is low attrition in the Fellowship. This is partly due to the fact that applicants go through a competitive selection process that seeks out individuals that are driven and civic-minded. A much larger part is due to the Fellows' commitment to their schools.

Fellows support teachers in testing new ways of teaching as well as managing and engaging children in the classroom. They are trained to reach out as peers and coaches, not monitors or inspectors, and work to build self-confidence in teachers, help with classroom management issues, lesson planning, or other areas that teachers request. They work to support teachers in feeling confident about asking questions and requesting help when they need it. Additionally, a Fellow conducts

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[2] For the duration of the Fellowship, the Fellows live in the community of their school.

TIPPS and TNAT trainings for teachers and conduct teacher evaluation in a low-stakes environment, where everything starts from the reflections of the teacher on their practice and continues by following the improvement track developed in by the teacher in consort with the Fellow.

Similarly, Fellows are assigned to work alongside district administrators or principals and provide support and training.[3] Co-development of materials and activities focuses on actions and outputs that restore connections between teachers, principals, and teaching supports from the District. Editing or revising materials, changing dates or venues for training, traveling distances to visit teachers or principals at home, and building recognition of the school in the community are all examples of the effort Fellows put in to support the cohesiveness of the system. Fellows also work with district administrators to help support administrative offices, identifying bottlenecks and helping to create solutions to resolve them. All Fellows receive continuous training so that they are proficient at modeling pedagogy, demystifying evaluation, allaying fears, and identifying needs in real time. Feedback from Fellows is rich in details that would otherwise be missed in surveys. Thus, the Fellows have a voice in the identification of key district concerns and evaluating the existing capacity for change of the district, schools, and classrooms.

Change Promoters: District Administrators
Gujarat, like many other states in India, has an education district administration that includes management, monitoring, and training components. To maximize the impact of support for TPD, PSL focuses on the professional development arms of the district administration. Specifically, this entails working with the BRCs, CRCs, and the DIETs. These efforts are bridged into two streams. First, the State Transformation Program (STP) builds capacity of BRCs and DIETs to facilitate change among the teachers and principals by designing and developing the needs-based training of the teachers. Next, the District Transformation Program (DTP) builds capacity of the CRCs in providing data-based feedback, deliberately moving away from assumption-based feedback to improve the teaching practices of the teachers and principals.

[3] Most fellows are in their 20s. Therefore, conversations around the Fellows leading trainings are initially viewed as both humorous and absurd by teachers and principals. However, the Fellows work hard to win the confidence and respect of their school colleagues through their empathy and dedication. The age differential works to their advantage as they propose fresh ideas and thinking about schooling and learning.

Common to both STP and DTP is a component tailored to build communication and transactional skills, supporting administrators in giving feedback to principals and teachers by employing tools such as non-violent communication and influencing without authority. Building these competencies enables administrators to provide objective, useful feedback to teachers in a mutually considerate manner. The breadth and depth of options allow the administrator and Fellow to tailor either program to their needs. For instance, as TIPPS-feedback grew popular among teachers, Surat CRCs, Fellows and DTP coordinators worked closely to develop ways of utilizing the resulting data for future CRC teacher trainings. CRCs limited capacity to utilize data proved to be an initial challenge, nevertheless, administrators continued to hone their coaching skills and developed a broader training program to integrate learning from the TIPPS. The CNAT was more readily understood and integrated as it was a more conventionally formatted tool. CRCs began to use it for evaluating overall school and individual teacher coaching needs.

In Gujarat, a fresh perspective on data that was already being collected provided a great opportunity for district administrators to support their districts. Since 2009, Gunotsav, the State-run, large-scale assessment of literacy and mathematics for primary school students, has been collected almost yearly across the state (Education Department Government of Gujarat, 2019). These data were never used for any district or school level planning or decision-making, much less for TPD. PSL began to work with staff from both BRCs and CRCs in 2017 on analyzing and using this data to inform teacher training. The Gunotsav provided key data to answer a question critical to both BRCs and CRCs: which schools in the state require more and what type support?

With answers now in hand, teams from the BRCs and the CRCs then co-created support strategies for each block, cluster, schools, and classrooms. The CRCs initiated their role as academic supports to the teacher, and the BRCs and CRCs redesigned and delivered a specialized training intended for the most struggling schools. In 2018, Gunotsav data indicated improvement in schools with Gandhi Fellows. This approach to data-based decision-making was also adapted for use by principals and teachers. The principals' and teachers' knowledge of the dataset has helped them understand the way that BRCs and CRCs use the data. Mutual understanding has helped build community and opened up a dialogue between these previously siloed levels of the education system.

Change Embracers: Principals

PSL's School Leadership Development (SLD) program was initiated in the city of Surat, Gujarat in the year 2013–2014 with 150 Principals, with 130 more schools added the following year. In 2015, 253 of the 280 Nagar Prathmik Shikshan Samiti (NPSS) Surat also joined in (Kaivalya Education Foundation, 2019). Couched within the SLD programming they received is the Principal Leadership Development Program (PLDP) which focuses on professional development for principals. As the purveyor of instructions from the District and participant on the ground in the school, a principal is uniquely positioned to be a change embracer. A principal can leverage his/her position to persuade teachers to persist with new ideas, even when tasks are challenging. Alternately, principals can find ways to integrate District directives in ways that support school progress and lobby the District when they do not.

Reimaging their role as a change embracer is not a linear process for any principal, but principals readily embrace their role as learners. Their own learning experiences also help principals become more empathetic and supportive of teachers, a shift from the traditional supervisory role that most principals see themselves in. For instance, Principal Bodhiben[4] struggled to get her school teachers to work collaboratively with her. She was often unsuccessful in convening her teachers for staff meetings, so she would delegate work to individuals when she saw them in the hall. She began making decisions and telling the teachers after the fact. Working with a Fellow, Principal Bodhiben a started to try out different ways to be more accessible and started to call meetings more often. Attendance was unassured, so was Bodhiben. With the support of the Fellow, Principal Bodhiben reflected on the pattern of these low-attended meetings and teacher disinterest. She recognized that she did not have a working relationship with any of the teachers and was not sure what one would look like. Principal Bodhiben devised an engagement strategy with the help of the Fellow. With new practice, Principal Bodhiben tried again and was met with lukewarm reception by her staff. So, she tried again. And as told by the Fellow, she tried again, and again.

By the five-month mark, the dynamic of the school had begun to change. Principal Bodhiben was leading regular staff meetings with high

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[4] No real names are used; all names are pseudonyms.

teacher attendance, and she worked with them to make decisions about the school. She used her better understanding of their classrooms to support her teachers. Her motivation to support her teachers, when she was still learning herself, was not lost on her teachers who in turn, respected her dedication and persistence.

Principals often occupy leadership positions with little or no training on how to do so. This challenge is further compounded by the fact that they often serve in a dual capacity as both principal and teacher. Across Gujarat, three critical issues persist for principals: (i) giving feedback to teachers, (ii) improving school processes, and (iii) time management. Fellows work closely with principals on the first issue, supporting the utilization of data to provide feedback to teachers. The principal can look at TIPPS and TNAT data to understand the different needs of teachers as well as how students are faring. To improve processes in schools such as Bodhiben's, creating a sense of unity between staff, principal, and teachers has been critical to improve the functioning of the school. Practices such as the effective use of the school assemblies have greatly facilitated this process. Lastly, principals are working to guard their valuable time at school through informed decision-making. Principals can build valuable skill-sets for prioritizing tasks and developing a more manageable schedule. More time translates into the ability to work more effectively, efficiently, and even incorporate new school projects such as maintaining school libraries. When the principal of a school is on board with embracing change, that sentiment resonates throughout the school.

Change Implementers: Teachers

The Teacher Leadership Program (TLP) is tailored to extend teacher abilities and build capacity in two areas: (i) personal growth and (ii) professional development. This differentiation is deliberate in order to emphasize teachers' identity as both individuals and teachers.

  i. *Personal growth.* Teachers are provided seminars on reflective practices, self-awareness, and planning to support their development as individuals.
  ii. *Professional development.* Teachers are provided regular content knowledge and pedagogy training and support. PSL staff provide trainings, and Fellows follow up with in-school support.

The common thread within the two program components is the emphasis on the teacher taking initiative in both assessing his/her needs and being open to feedback to change their teaching practices. The challenge for teachers is to embrace the tools of professional development. In the past, most have never encountered measures created specifically to support their development as teachers and are hesitant to opt into evaluation that could become one of high stakes. Principal support, peer influence, observing the needs assessment processes, and observation are key contributors to teachers' decision to participate in the program.

Teachers' reluctance is a powerful reminder that trust is the foundation on which all programming rests. To protect teachers from feeling vulnerable, teachers are first trained to assess their own content knowledge and pedagogy gaps through the TNAT and TIPPS. Teachers also learn to interpret the findings from these measures. Transparency and active involvement in their development allays fear of being judged. Teachers begin to reach out with gaps they assess in their practice, as evidenced in the experience of Grade 2 teacher, Minaben. She knew something was amiss. Her students were not reading as fluently as she had hoped. When she and her students were assessed by the TNAT and TIPPS, she asked the Fellow to help her interpret the results. Her instincts were correct. A majority of students were not reading at Grade 2, nor Grade 1 level. Further, some students were having difficulty with pronunciation, while others were struggling with letter comprehension. Her limited pedagogical skills made it difficult for her to support the different needs of both groups in the class. She also learned her content knowledge on the topic was inaccurate and contributing to the students' reading issues.

Minaben and the Fellow developed a strategy for the next two months to tackle these issues. She worked with the Fellow to build both content knowledge and pedagogy. Minaben tested out her collaborative learning skills and organized her classroom into two groups based on reading needs and worked on need-specific activities with each group. Her initial effort to differentiate her teaching by students' needs was met with complete chaos in the classroom. She was learning to instruct, as her students adapted to learning in a new classroom learning environment. Though she did not start with a focus on classroom management, Minaben honed this skill as well. She met most of her objectives in differentiating her teaching to the needs of both groups. By the end of the year, her students' reading, on average, improved 22% from the assessment at the beginning of the school year.

Humanizing the Data System: Gujarat and Beyond

PSL's approach has been to use feedback within the system to lift the voices of individuals in the system. Feedback has become a cornerstone of every Government TPD training program in which PSL is involved. Teachers not only receive information on their progress, but they are also allowed to provide their opinions on the training they are receiving. This exercise in amplifying their voice is often a new one for teachers, but it is a productive one because it enables teachers to have agency over their professional development. Importantly, feedback initiates dialogues within and between levels of the system, requiring all participants to think beyond their immediate positions in the system and to think about how they contribute to the broader system.

Feedback on pedagogical practices in the classroom is a consistent request from teachers. In Gujarat, teachers now receive feedback after every observation and discuss the results with a Fellow. Since teachers work on their technical teaching skills between observations, teachers often use the subsequent observation to self-evaluate their progress as well. When experimenting with and mastering different teaching tactics and techniques, teachers use the feedback to evaluate execution of the technique. For example, one teacher described using observational data to track what she did to engage students in the classroom. In her first observation, she could not keep students engaged in the lesson. In the next observation, she was seen engaging students by trying to connect the lesson to their everyday lives and asking questions. As another teacher, on using manipulatives to teach, stated, "Now, understanding is improving. Before, children were frightened when they saw [me]. By using teaching aids, I get children involved, [their] fear runs away".

Nonetheless, pedagogy and content knowledge remain challenging for most teachers as evidenced in the feedback PSL receives from teachers and Fellows. Most teachers feel least confident in instruction, and most confident in classroom management. Second, difficulties experienced within the classroom can be socially isolating. It can be more socially desirable, to assign blame for any lack of learning to students, rather than admit to their peers that they might be struggling to teach themselves. Asking for support, teachers report, is akin to admitting they are a low-performing teacher. Thus, problems do not get discussed with peers or principals. And thus, no support exists to avail.

The response to the above needs was embedded in data that was already being collected in the system—the classroom observation data.

As part of their self-reflection, teachers were already taping their classrooms. PSL extended the in-classroom model to create the Virtual Field Support (VFS), a central feedback support center for teachers across the country. Teachers could request their classrooms be evaluated using the TIPPS and also request feedback on the 19 different dimensions. VFS provides direct access to instructional support, without the risk of feeling isolated embarrassed. Due to interest from principals and district administrators, the VFS was expanded even further. The team developed content support materials such as guides, lesson plans, and worksheets for language and mathematics lessons. To date, coders trained on the TIPPS analyzed over 2000 classroom videos to provide both general as well as teacher-specific feedback. The classroom footage was also used to create a virtual library of promising pedagogical practices, the teaching of different curricula, and classroom management.

Access to this video repository brought forward a new way in which principals and district administrators were interacting with schools and teachers. As VFS expands, the approach to providing feedback on each level of the system is being super customized such that when a teacher calls from a specific district in a specific state, VFS will be in a position to provide granular feedback on pedagogy (TIPPS), content knowledge on all his/her classroom videos (TNAT), and a professional development profile for discussion and planning. If a middle manager or district administrator needs support, state, district, block, and school-level data will be available for decision-making needs.

Exploring ways to address systemic issues in any education system require a thorough investigation of the challenges and capacity for change within that system. The PSL approach for systemic change has been to inspire and support change by reimagining the role and use of both the people employed and data generated within the system. Therefore, our focus has been to reinvigorate and support the role that people play as key contributors to the wellbeing and efficiency of the system. Generally systemic change is slow, and we capitalized on this pace to be used as a deliberate attempt at purposeful capacity building—teachers improving their instructional, pedagogical and content knowledge skills, principals developing feedback and management skills and district administrators for better use of data and metrics. The results have indicated change in both the way data is utilized within the education system and the way in which individuals understand their role in improving education service delivery.

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Designing for Technology-Enabled Reflective Practice: Teachers' Voices on Participating in a Connected Learning Practice

Bindu Thirumalai, Anusha Ramanathan, Amina Charania and Glenda Stump

Introduction

This chapter discusses teachers' articulation of their attitudes, knowledge and perceptions concerning participating in a continuous professional development (CPD) programme for upper primary and secondary school teachers across four states in India. It traces the changes in the teachers'

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beliefs and practices as a result of participating in a technology-enabled, practice-based, blended learning certificate CPD programme implemented at scale in the Indian context. The aim and purpose of doing such an exercise were to study how the CPD framework operates on the field, and the focus of this research study is, therefore, on the evaluation of the processes of the CPD programme.

The nature of teacher professionalism and the role of the school teacher in contemporary India has changed to some extent due to the Right to Education [RTE]) Act (GoI 2009) which makes school education a fundamental right for all. Accountability of teacher's work has become the focus of the discourse on quality education and student learning outcomes by politicians and policymakers alike (Sarangapani et al., 2018; Batra, 2012; Day & Sachs, 2004). Hence, implementing a CPD framework for teachers involves understanding the intersections between macro characteristics of the professional development of teachers and the microcosms in which the teachers operate. The macro aspects include policies, structures, status and expectation of teachers from the state education system and vice versa. The micro aspects involve contextualising teacher education pedagogy. The integration of ICT for delivery of CPD programmes requires new imagination of macro-level structures as well as pedagogies and learning environments. Keeping the complexity of implementing a CPD programme at scale in a diverse context such as India in focus, this study aims to answer how the programme's CPD framework operates on the field and what are its highlights and challenges. The study is presented from the vantage point of teachers who are the primary recipients and stakeholders of this programme.

This chapter, first presents the design, approach and implementation of the CPD programme to provide the readers with a context. Subsequently, it develops an understanding of Indian teachers as professionals and the evolution of professional learning communities by presenting the teachers' landscape and the viewpoints of those participating in the CPD. It delineates the need for a CPD programme to be responsive to the learners' contexts and lays out the ground as to why there must be a systemic intervention at both the policy and administrative levels to enable CPD. It is envisaged that the learnings from this research will inform CPD policy and processes required for large-scale pedagogical transformation in India, as well as in the broader South Asian context.

Research Methods

Any CPD programme requires considering multiple stakeholders with differing needs, especially one implemented at scale across the diverse contexts seen in four Indian states. Evaluation of such a programme can lead to improvements in design and enhance outcomes. This study uses qualitative methods to understand how a CPD programme implemented at scale operates on the field from the viewpoint of teachers. A qualitative method enables nuanced understanding of differing levels and nature of adoption and changes through detailed descriptive explanation, mix of quantitative and qualitative data, formal and informal methods of data collection, face-to-face interactions, field observations and online data (Patton, 1990).

This study depicts a realistic picture of a complex interconnected CPD framework to enable formulation of the programme's theory-of-action by establishing connections between the implementation processes and the expected programme outcomes (Patton, 1990, p. 107). The specific research questions are (1) how does the CPD framework operate on the field, from the viewpoint of teachers? and (2) what are the highlights and challenges of implementing the programme? Quantitative and qualitative data were gathered from four primary sources that included responses from online feedback post-workshops, communities of practice posts, field visit reports on implementation in schools and telephonic interview of a representative, purposive sample of teachers from each subject. A detailed analysis is presented in the section titled Teachers' Voices.

Programme Design and Approach

The latest National Curriculum Framework for Teacher Education (NCFTE 2009) (NCTE, 2009), drawing on the national curriculum for elementary and secondary education, National Curriculum Framework 2005 (NCF 2005) (NCERT, 2005), advocates for the development of reflective and constructivist practitioners. Based on the shifts, from a predominantly positivist epistemology of practice to a constructivist position (NCERT, 2005; NCTE 2009), there is a dire need for quality CPD to reach and support teachers to realise the intended reforms in classrooms and aid their professional growth. The discourse on teacher accountability has become inevitable, however, it has to shift from *contractual*

accountability that relies on measuring teachers against standards to *responsive accountability* aimed at developing teachers as reflective autonomous professionals through a collaborative process and relies on self-regulation to address accountability issues (Sachs, 2016). Deriving from this, a CPD framework was designed to develop teachers as constructivist and reflective practitioners (Schön, 1983, 1987). The CPD design includes developing teachers Pedagogical Content Knowledge (PCK) (Shulman, 1986) adopting a practice-based pedagogy (Ball & Cohen, 1999; Korthagen & Kessels, 1999) using exemplar OER; a blended approach of workshops and online MOOC-based courses and creating online teachers' communities of practice (Wenger, 1998) to enable professional discourse among teachers by making classroom practice public (Sarangapani, 2011) to support teachers' pedagogical transformation process in the classrooms and collaboratively build a discourse around teachers' practice to create a self-regulating environment. This CPD framework has been developed and implemented at scale in a phased manner since 2016, covering over 2000 teachers across four states in India.

A key aspect of the CPD framework design to develop teachers as reflective practitioners involves creating a connected learning experience for teachers. The CPD framework for secondary school teachers was designed, developed and implemented through the Connected Learning Initiative (CLIx).[1] CLIx aims to improve the education of high school students in English, mathematics and science leveraging technological innovations. The intervention has developed ICT-based student resources and professional development programme for teachers. This section outlines the theoretical and conceptual underpinnings that informed the design of the complex CPD framework that connects multiple conceptual constituents aiming at pedagogical transformation of teachers as well as improving student learning outcomes.

Design

Connecting subject content and pedagogy—Pedagogical courses in English language learning, mathematics and science: The design principle draws on ideas of student learning from the NCF 2005 which

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[1] For more detailed information about CLIx, please visit https://clix.tiss.edu/.

espouses a constructivist and active approach to teaching and learning, adopting a theoretical orientation of social reconstructionism. Curricular content is defined as integrating the domain knowledge with the learners' sociocultural contexts. The learning of subject matter is conceived as a series of activities facilitated via rich pedagogical interactions that learners engage in to construct their knowledge of the domain bringing their prior knowledge and experiences into the process. Another aspect of deep learning is best outlined in Lee Shulman's (2004) work on teacher knowledge and practice supporting active learning pedagogies. Explaining, representing, creating examples, understanding students misconceptions and incorporating the culture, language and context of the students is an important aspect of knowledge-base that a teacher needs to build. This knowledge was conceptualised by Lee Shulman (2004) as PCK. When teachers are exposed to the domains of knowledge in a historical and contextualised way, it not only helps them develop content but also enables development of subject-specific pedagogy. PCK is developed and influenced by the teachers' subject knowledge, everyday activities, availability and use of resources, personal beliefs, beliefs about the subject and learners and is rooted in the experience and contexts of the learners and their communities. Part of this connect to the learner's current schema is language. The linguistic situation in India is complex wherein multiple languages—home language/s, regional language/s and English—form a complex matrix in a student's school life. The NCF 2005 encourages a multilingual approach to teaching and learning. Based on these guiding principles, the *Reflective Teaching with ICT* (RTICT) certification programme, available in English and Hindi, was developed. It uses the CLIx student modules[2] available in English, Hindi and Telugu as Open Educational Resources (OERs) exemplar. Together

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[2] Fourteen modules have been developed in communicative English, mathematics and science for secondary school students as Open Educational Resources. The modules are (1) Digital Literacy—Invitation to CLIx, (2) English Beginner, (3) English Elementary, (4) Geometric Reasoning—Part I, (5) Geometric Reasoning Part II, (6) Proportional Reasoning, (7) Linear Equations, (8) Atomic Structure, (9) Basic Astronomy, (10) Ecosystem, (11) Health and Disease, (12) Sound, (13) Understanding Motion, and (14) Reflecting on Values. Each of the modules are divided into units and further divided into lessons. The lessons have a variety of activities for students that are classroom, technology-enabled and hands-on with different levels of facilitation required by teachers. The modules are accessed in schools via the CLIx learning platform specifically designed to work offline, providing a connected learning experience through local area network.

with the pedagogic courses aimed at enabling teachers to integrate technology meaningfully using the student modules to support active learning, the communities of practice too were designed to nurture the development of the teachers' PCK. Thus, a three-pronged approach of using communities of practice, pedagogic courses for teachers and reflection on implementation of student modules was used to ensure CPD.

Connecting teachers with teachers, teacher educators and subject experts—Nurturing subject-based teacher communities of practice: To enable the development of a practice-based epistemology in education, there is a need to create a professional discourse among teachers. A community of practice (Wenger, 1998) is an epistemic community that draws on the idea of situated learning theory. Lave and Wenger (1991) developed the idea of situated learning (or situated social practice), describing learning as occurring through participation in social processes situated within specific sociocultural contexts that shape the learning through participation in its activities. As argued by Wenger (1998), the practice is itself the curriculum. Learning or meaning-making takes place through the dual actions of engaging in community activities, discussions, conversations, and reflections and sharing artefacts such as teaching resources, methods and documents. The artefacts produced through participation in the community are the knowledge of practice produced by the community. Learning is most effective when a practitioner actively participates, produces artefacts and engages in discussions about the practice (Thirumalai, 2017). The university faculty act as brokers (Wenger, 1998), connecting teachers' communities of practice with other communities such as teacher educators and education administrators, thereby bring new meaning into each of these communities were designed to connect the teachers of a subject with each other, with the teacher educators, and with the administrators. These focused on fostering domain-based group communication to encourage nuanced discussions about the practice.

Connecting practice with theory through practice-based pedagogic courses and community of practices: Traditional teacher education models have been developed to integrate theory by applying technical designs such as lesson plans and activities converted by experts into implementable procedures, to practical classroom situations. However, such an approach is prescriptive and creates a theory-practice gap that

teacher education has been perpetually struggling with (Korthagen & Kessels, 1999). Building on this argument, Korthagen & Kessels (1999) suggest a realistic approach to teacher education where a teacher's learning process involves developing theory from practice, considering the relationship between teacher cognition and teacher behaviour. They use a model of levels of learning based on the psychological idea of *gestalt* whereby individuals respond to a situation through the formation of a holistic perceptual identity of a situation. There are three learning levels in this model, the gestalt level, the schema level and the theory level. In the gestalt level, teachers reflect on their *gestalt*, examining their behaviour, beliefs and theories of learning of specific teaching situations. This enables teachers to start developing a *schema*, moving slightly away from the specific situation to analyse and reflect on the situation in more general terms making use of theoretical knowledge (*episteme*) and progressing to the theory level, where teachers can reflect on the situation in more general terms, connecting their experiences to construct logical relationships and meanings that may apply to many such situations, thus engaging in the development of theory. This learning is a cyclic process with learning in the theory level becoming intuitive and subconscious in the teachers' action leading to the refinement of teacher's gestalts, termed as *level reduction*. This three-level learning model integrates Lave and Wenger's (1991) situated social learning perspective, where all knowledge is grounded in a social context and where the learner can build theory by logically ordering the schema level experiences that are rooted in practical situations. Such a conceptualisation requires a practice-based pedagogy of teacher education (Korthagen, 2010).

A practice-based learning approach requires teachers to inquire into their classroom teaching, interpret theoretical ideas by connecting their practice to the ideas rather than using it to prepare for their teaching. Teachers may also engage with artefacts of teaching situations such as videos, student's work and so on, analyse these artefacts and gain insights on how to adapt the learnings into their practice. Engaging in discussions collectively in a community of practice enriches the discussions and as more ideas and challenges may be deliberated on, creating an environment of professional collegiality and enabling development of a professional discourse around teaching practice (Ball & Cohen, 1999), essentially developing as reflective practitioners. In general, reflective teaching aims at developing critical inquiry into one's practice. It was first identified by John Dewey (1938) as a form of thinking that was

different from routine action. Later (Schön, 1983, 1987) developed the idea of a reflective practitioner and its development. Schön also identified two types of reflection, *reflection-on-action*, thinking about the experience after the event is over and *reflection-in-action*, thinking while doing. Essentially implying, like Dewey, that professional practice is never routine and involves responding to situations based on experience and practical wisdom. Teacher professional knowledge is an amalgamation of theoretical or formal knowledge, tacit craft knowledge embedded in experience and knowledge that is generated by inquiring into one's own practice (Cochran-Smith & Lytle, 1999; Winch, 2004). To build such a knowledge-base teachers fundamentally need to develop as reflective practitioners. Developing as a reflective practitioner is also known to be more effective when one is engaged in collective dialogue with peers. From this standpoint, the pedagogic courses focus not just on sharing theory with the teachers, but also on ensuring that these learning activities are designed to foster active discussions in the communities of practice connecting theory to examples that the teachers can share based on their own experience.

Connecting students with peers and teachers: The third of the three-pronged design of the framework is the CLIx student modules. The design of all CLIx educational resources is informed by a pedagogic framework referred to as the "Pedagogic Pillars" to support an interactive and learner-centred learning environment. The three pillars are peer learning or collaboration, risk-taking and learning from mistakes and relevance and authenticity of learning. The first pillar, peer learning encourages dialogue between student-student and student-teacher to integrate ideas, co-construct knowledge to deepen learning of concepts through collaboration. The second pillar encourages teachers to create a classroom environment in which risk-taking and learning from failure are integral to the educational process creating a culture that deepens the connection between students and teachers. The third pillar is intended to develop a culture in which students understand that their learning is meaningful for their lives and the teaching pedagogies support learning that is true to the domain knowledge of the subject being taught as well as relevant to the students' context (CLIx, 2017). The implementation of these modules in their classrooms enabled teachers to reflect on their practices and themselves construct the knowledge the pedagogic courses

facilitated the learning of and then share their ideas in the communities of practice to further their PCK.

Approach

The foundational enabling conditions for integrating ICT into teacher professional development are access to devices and the internet, relevance to school curricula and practice and teacher's availability of time for professional development (Albion, Tondeur, Forkosh-Baruch, & Peeraer, 2015). The CLIx baseline data (Chandran & Roy, 2017) revealed that the majority of the teachers accessed the internet and computing tools through mobile smartphone devices. Data also revealed that over 50% of teachers needed training to become digitally literate, making the option of implementing a purely online professional development course improbable in these circumstances. Taking into consideration the context of CPD and the Indian school teacher's personal and systemic conditions, CLIx has adopted the following approach (See Table 11.1).

Table 11.1 CLIx teacher professional development approach

Design	Approach	Mechanisms
Pedagogical courses + Foundation course: ICT in education including digital literacy	A 17-credit, two-year postgraduate certificate programme, Reflective Teaching with ICT (PGC RTICT) offered by TISS in the blended mode in multiple Indian languages	TISSx—*Open Edx* platform for delivery of courses MitiBot—a *Telegram* bot to access course resources via the smartphone
Community of practice	An online community of practice	Open source mobile messaging application—*Telegram*
Practice-based learning	Implementing the exemplar CLIx student modules—English, mathematics and science Open Educational Resources developed for students by CLIx Reflecting & reporting on experiences of implementing the modules	CLIx platform is a next generational digital learning environment designed for connected and collaborative learning at K-12 Reporting templates and teacher course books—formal Sharing on the communities of practice—informal Monitoring and technical support through periodic field visits by CLIx field team members
Pedagogic pillars	All student and teacher resources exemplify the pillars as relevant in design. Workshops adopt the pillars in the facilitation process	Pedagogy framework of CLIx
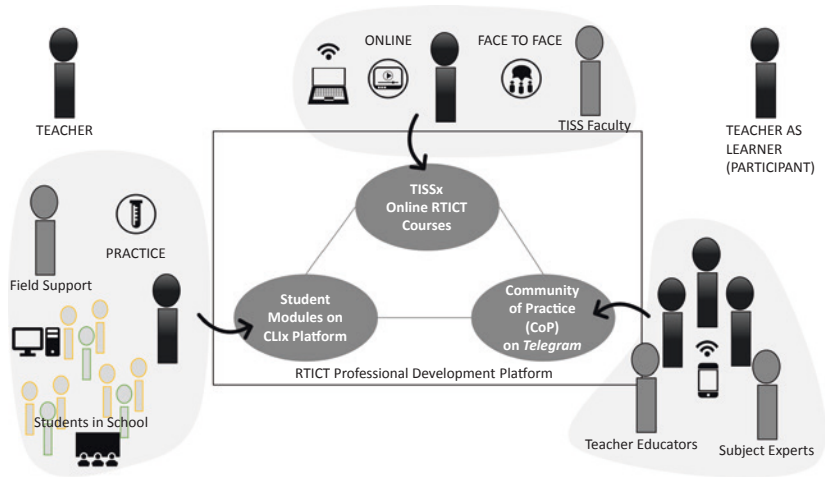
Fig. 11.1 Reflective Teaching with ICT (RTICT) professional development platform

Teacher professional development is being offered as a two-year, university-based 17-credit postgraduate certificate programme RTICT (See Fig. 11.1) by the Tata Institute of Social Sciences (TISS) for long-term sustainability. The programme includes two foundation courses to develop abilities to use ICT in education (04 credit course), enhance action research skills and develop PCK in any one pedagogical course (04 credit course) in communicative English language, mathematics or science teaching. In addition, several interdisciplinary electives (2 credit courses), such as ones on values or toy-making, have been developed so that teachers can choose any three. RTICT is offered as a blended model, where teachers meet for three days face-to-face in a workshop mode to experience hands-on the ICT-based resources and platforms used by the courses including the CLIx modules. The courses adopt practice-based pedagogy whereby teachers implement OERs that exemplify research-based pedagogies and best practices. Additionally teachers are expected to reflect and report on their experiences of implementing these modules. The CLIx field team provides technical support and monitors the implementation by visiting schools on a periodic basis. Furthermore, teachers continue their learning process by completing the courses on the *TISSx* platform. The widespread use of smartphones to

access the internet prompted the use of an open source mobile messaging application for creating subject-based teacher communities of practice. The pedagogy framework consisting of the three pedagogic pillars mentioned above are integrated into all educational resources and facilitation processes developed and offered by CLIx and are woven into the theoretical components of the pedagogic courses.

Implementation

The CPD programme in CLIx was offered (See Table 11.2) from 2016–2017 in four states[3] in India. In the first year, only the face-to-face workshop sessions were implemented with teachers to introduce the student modules and prepare them to implement the modules in their schools. Teachers participated in subject-based community of practice groups created on the mobile messaging application. The implementation was preceded by intense field work and negotiations with the state education department and readying the school computer labs. Approximately 86, 32, and 27% of schools implemented[4] the digital literacy, English and mathematics student modules, respectively, in three of the four states. In 2017–2018, the RTICT was launched in all four states offering four[5] courses. Participating teachers had to mandatorily register into the programme and enrol in two courses. The implementation design also included building capacity of local teacher educators (TEs) to strengthen the scaling process. Approximately 1600 teachers from the four states enrolled in the courses, teachers connected with the course faculty and actively participated in the communities of practice. However, less than two per cent of the teachers engaged in online learning (CLIx, 2017).

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[3]The CLIx programme is being implemented in four Indian states namely, Chhattisgarh (CG), Mizoram (MZ), Rajasthan (RJ), and Telangana (TS).

[4]Typically, teachers implemented 2 or 3 lessons in the first unit of the digital literacy, English and mathematics CLIx student modules.

[5]C01—Introduction to ICT in Education; S01—Communicative English Language Teaching; S02—Reflective Mathematics Teaching; S03—Interactive Science Teaching.

Table 11.2 CLIx teacher professional development—Workshop implementation 2016–2018

	2016–2017 workshops for CLIx student module implementation				2017–2018 workshops for Reflective Teaching with ICT teacher certification programme courses			
	Teachers (invited) participated				*Teachers (invited) participated*			
State	*Digital literacy*	*English*	*Math*	*Science*	*C01 (ICT and education)*	*S01 (English)*	*S02 (Math)*	*S03 (Science)*
CG	(103) 93	(34) 29	(33) 28	n/a	(103) 72	(33) 29	(33) 29	(36) 24
MZ	(165) 164	(58) 36	(53) 34	(54) 30	(167) 164	(58) 22	(52) 26	(57) 27
RJ	(264) 248	88 (50)	(84) 46	n/a	(313) 224	103 (58)	(102) 55	(104) 71
TS	60 teacher educators	230	n/a	n/a	(1807) 1472	(481) 375	(547) 471	(978) 743

Teachers' Voices

As the teachers journeyed through the CPD programme during the academic year 2017–2018, their experiences were actively sought and recorded. Online feedback forms at the end of the workshops supplemented by the observation reports filled by CLIx team members collated the first impressions the teachers had of the programme. The communities of practice posts presented the ongoing journey of growth and the subtler nuances of the usefulness of the programme as perceived by the teachers. The field visit reports on implementation in schools added depth to the documentation of teachers' experiences evolving over the course. Finally, at the end of the course, a representative, purposive sample of teachers from each subject was interviewed telephonically to understand their experience of having participated in the CPD programme. These four primary sources of data lent themselves to detailed qualitative analyses that are expounded upon in this section to enable comparison between the espoused CPD framework and the actual implementation to answer the research questions.

2017–2018 Workshop Feedback

Taking into consideration micro aspects of CPD as well as macro-systemic aspects, the feedback, stories and experiences of teachers during the workshops have been thematically classified into four[6] categories: content, pedagogy, implementation/technology and systemic/career. Teachers' confidence-level responses were collected at the end of the workshop using a 5-point Likert scale. The qualitative responses were analysed from the following three open-ended questions asked in the workshop feedback: (1) Any other comments? (2) What did you like most about this workshop? (3) What did you like least about this

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[6]Content—comments related to workshop session content and the CLIx student modules.

Pedagogy—comments related to workshop facilitation and duration, CLIx pedagogic pillars.

Implementation/technology—comments related to implementation, infrastructure, technology issues experienced in the workshop.

Systemic/career—comments related to administrative, career and systemic issues raised by teachers.

workshop? These responses were further categorised into the four themes mentioned above. The digital literacy workshops for the foundation course were conducted at the school cluster level by local resource persons trained by university faculty for some districts of Rajasthan and all districts of Telangana, however, the subject-based course workshops were facilitated directly by the module and course designers and university faculty. This subsection elaborates on the four categories identified above.

Content

Teachers indicated they were mostly satisfied with the workshop content. As there were very few teachers who engaged with the online course, the teacher's opinions on the content of the complete course were not possible to determine for the academic year 2017–2018. The qualitative feedback was also positive, and teachers expressed that they found the content covered in the workshop useful for their professional development in all three subjects (Fig. 11.2).

In all the states, most teachers (except mathematics) initially struggled to find relevance to their professional development with the digital literacy activities. The digital literacy activities included learning to

I really find CLIx student modules useful because it is very intreactive and requires active participation of the kids at individual, pair and group levels. Yesterday's class was an eyeopener for us, showing that English class can be real fun and funny at times.

-English Teacher Mizoram, Workshop feedback,
Teacher's Community of Practice

Fig. 11.2 Teacher's voices 1—English teacher Mizoram, workshop feedback, teacher's community of practice

use tools such as mind maps, spreadsheets, vector drawing and dynamic geometry. Teachers engaged more easily with subject content, solving puzzles and questions posed in science and mathematics and less with PCK. The topics developed into mathematics and science CLIx student modules were meant to serve as exemplars for demonstrating meaningful use of technology supporting active and interactive pedagogies and discovering research-based PCK. Similarly, the English student modules did not focus on the textbook curriculum and instead addressed listening and speaking skills. However, the teachers, expecting complete coverage of curricular content, were disappointed. Several teachers informally expressed that the student modules were more suitable for lower grade students rather than the 9th grade students with whom they were to implement the modules.

Paradoxically, responding to the questions of what they liked and disliked about the workshop concerning content, most teachers focused on the usefulness of their favourite CLIx module or ICT tool. In most of the workshops, teachers were keen to spend maximum time practising on the computers and were not interested in participating in theory-based sessions.

Pedagogy

The majority of the teachers appreciated that the faculty adopted an active and interactive pedagogy, allowing teachers to freely express their opinions, discuss their experiences and the collaborative learning environment of the workshops as expressed in the open-ended responses by teachers in the post-workshop feedback. Specifically, the science teachers appreciated the hands-on experiments that were covered in the workshops; the English teachers appreciated the collaborative environment and the mathematics teachers, the independence to explore the GeoGebra tool and engage in mathematics processes of reasoning and problem-solving. All teachers, however, felt that the workshop time was insufficient for hands-on use with computers. The lack of time was especially highlighted by many of the teachers working in rural contexts who had not used computers before these workshops. The reported confidence levels in integrating ICT in teaching were different in the four states; however, none were lower than 60%. Furthermore, most teachers were confident at the end of the workshops that they would be able to help their students learn from their mistakes. The practice-based component of the professional development was significantly new for teachers.

During the discussions around the implementation of the CLIx student modules in their schools in the workshops, teachers were mostly sceptical about following through with the plan. Most teachers expressed that the school computer labs were not functioning and they did not have the ability to make it functional. Issues about timetabling the activity were also a significant concern as teachers expressed that they were under time pressure to complete the prescribed syllabus.

Implementation, Infrastructure and Technology
In a majority of the workshops, except in Jaipur, Rajasthan, the state department's computer labs were used to conduct the workshops. Despite the technical team's effort to set up the technology before the workshops, the teachers faced many technology and infrastructure issues. Often the size of the computer labs was small with insufficient working computers that led to teachers sharing computers or working in cramped spaces. Unscheduled power outages disrupted the training several times. In many cases, even if the computer was working, the mouse would not work correctly. The internet connection, when the training were conducted in districts away from the capital city, was poor. All this added significantly to both the faculty as well as teachers' frustrations. Additionally, although the proposed workshop timings were from 10:00 a.m. to 5:00 p.m., most teachers would arrive late on the first day of the workshop and request to leave early, especially on the last day. Sometimes teachers did not receive the order to attend the workshop on time; other times teachers had to travel long distances from surrounding districts to attend the workshop.

While in the pedagogy section, the teachers' ease with using technology seemed low based on their feedback that they would have liked more time for computer-based activities, all teachers reported increased confidence in their ability to handle computers. The open response feedback varied based on the number of technical glitches that affected the trainings. The smoother the training itself went, the higher the confidence reported with respect to CLIx adoption and the fewer the complaints linked to dearth of infrastructure in their schools.

Systemic
Teachers are mandated by the state education departments to participate in the professional development programme, hence in every

workshop, a few teachers were disinterested in the programme. The senior teachers in all states who had less than two years of service left were not interested in engaging in new pedagogies. Many such teachers felt that they had taught successfully without using ICT and did not see the need to adopt it in this late stage of their careers. Specifically, in Mizoram and Rajasthan, teachers were vocal about expressing the need for a connect with the certificate programme and their career, and none of the teachers continued with the online learning beyond a cursory engagement.

2017–2018 Community of Practice

The second source of data analysed led to a vast information bank. The data were analysed in two ways. Quantitative measures for the calendar year 2018 for all the communities that included number of members, number of posts and photos posted by faculty, teachers and by the days of the week were analysed. Specific posts of teachers that highlighted their engagement with the programme have been identified and collected throughout the implementation period and presented in the chapter. Teachers were made members of subject-based groups on Telegram during the workshops. In January 2018, the total number of teacher members across all the community of practice groups was 1900 (Figs. 11.3 and 11.4).

The teachers posted every day about their experiences and concerns about the workshop, and the activity was high. Once the workshop was completed, the teacher posts were usually limited to inquiring
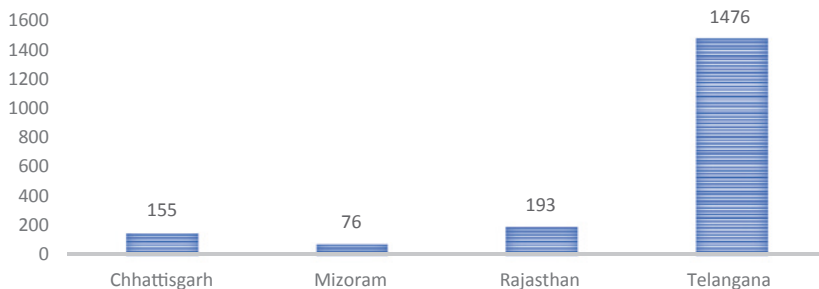
Fig. 11.3 Teacher membership online communities of practice by state (January 2018)
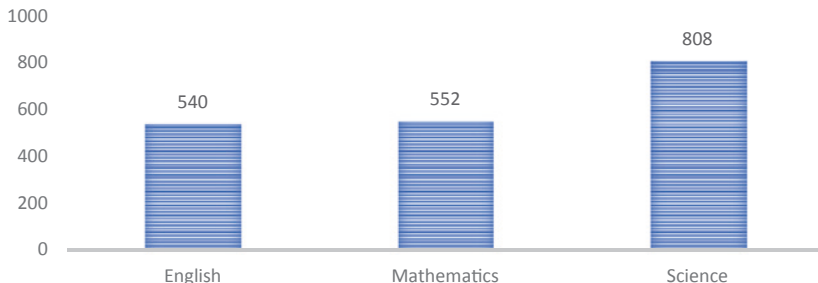
Fig. 11.4 Teacher membership online communities of practice by school subject (January 2018)

about technical issues related to their school computer lab, sharing photos of students engaging with the CLIx student modules in their schools, while implementing the practice component of the courses. Many of the teachers were already a part of local district subject groups and from the beginning moderated the group posts accepting only education and subject-related posts. During the workshops, there were about 40–60 posts a day that reduced to an average of 5–15 posts subsequently. "Friday Mathematics Education Time" post was posted every Friday in the Telangana Mathematics Group attempting to increase teacher participation in the community of practice. This post generated interest among teachers, and at least 4–5 teachers actively participated in the discussions. The Telangana mathematics teacher's community of practice group showed a 27% increase in the total number of posts on Fridays as compared to the other weekdays in 2018. In the Chhattisgarh mathematics teacher's community of practice group, one teacher expressed appreciation for the Friday posts, saying, "Thank you so much for giving this interesting question. I know that you and your team work hard to post such questions that make us think. I have enjoyed this post as much as the previous posts". Subsequently, Friday Times was initiated in all subject groups. Although some of the managed posts engaged with PCK-related content, teachers were responsive to problem-solving and puzzles-based posts. For example, there were hardly any responses to questions asked about students' misconceptions, students' thinking or ways of representing concepts to enable students to learn. The participation in

Table 11.3 Teacher communities of practice—Percentage of total posts in four states for 2018

Communities of practice (4 states)	Number of posts	Posts by TISS faculty and other CLIx team members (%)	Posts by teacher (Text based) (%)	Posts by teachers (Photos of implementation shared) (%)
English	2760	42.54	35.83	17.21
Mathematics	3901	41.09	37.58	21.33
Science	4872	44.99	31.67	24.08

the communities of practice by TISS faculty and CLIx team was only slightly less than the participation by teachers. Many of the posts initiated by teachers were photos they shared of implementing the CLIx modules or special events in their schools. Table 11.3 shows the distribution of the posts in the communities of practice by subjects.

The TISS faculty play an important role in moderating the discussions in the communities of practice. For example, in the dialogue that was facilitated in the Rajasthan English teacher's community of practice, one teacher wrote "One should not insist on accuracy before Fluency is gained". Two other teachers, who did not completely agree, responded, "Accuracy is required with fluency" and "Accuracy is also important for a child to get knowledge of grammar and vocabulary". When a TISS faculty probed "Some of you have said fluency first then accuracy. Some of you have said both accuracy and fluency are equally important. Can you explain why you think so?", the responses from the first and second teachers were, "I think if we prefer accuracy students will hesitate to learn the language" and "Accuracy is more important rather than fluency. We all should focus on accuracy, fluency is gained gradually. Without accuracy we will communicate incorrectly". Such dialogues bring out the voices of the teachers, their reasoning and also enable the readers to engage more deeply with the aspects of accuracy and fluency for English language learning and pedagogy. The communities of practice have through these different forms of management by the faculty enabled the teachers to continue to share their implementation experiences establishing programme continuity and a link between university faculty and school teachers (Thirumalai, 2019).

2017–2018 Practice-Based Pedagogy—Implementation in Schools

The third dataset, the practice-based component of the course required teachers to implement at least one of the CLIx student modules of their subject in schools. Templates were provided to scaffold teacher's reflection and reporting processes (Setty, 2016). For example, the mathematics teacher course book (CLIx, 2018) has two sections Student Observation and Self-Reflection (See Fig. 11.5) that enable teachers to inquire into their classroom learning and teaching. Teachers are required

Student Observations	
How did students discuss the game in the class? Give some examples.	
What are the different criteria that students came up with while doing the sorting activity? Note down atleast 4.	
What are some of properties that students understood? Note down at least 3.	
What were the common mistakes observed by you? How did you address them?	

Self-Reflection	
In the group activity, did the students discuss the given task? Note down some discussions.	
Was it easy for you to organize the group activity? Note down some of the challenges that you faced.	
How were you able to use students' experience of playing the game in the classroom discussion?	

Fig. 11.5   My notes: mathematics teachers course book

Today I divided students of 9th in 3 groups of each 18 members and discussed properties of quadrilaterals and connection among the shapes. First group worked in the computer lab on the CLIx student modules to understand properties and shape relationships. Second group worked on Tangram and Geoboard and tried making shapes. Third group worked with paper pencil, tried to make shapes with paper cutting. All students were busy and enjoyed working. Making shapes with Tangram was most challenging. Finally, they could not make a trapezium or rhombus. They will try again tomorrow.

-Mathematics Teacher Chhattisgarh, Teacher's Community of Practice, Implementing the Geometric Reasoning – Part I CLIx student module

Fig. 11.6 Teacher's voices 2—mathematics teacher Chhattisgarh, teacher's community of practice, implementing the geometric reasoning—Part I CLIx student module

to record their experiences, student's learning and work and submit reports as course assignments. Teachers are also encouraged to share their experiences on the communities of practice to enable collaborative reflection among peers (Fig. 11.6).

Teacher interviews and observations conducted during workshops and field visits showed that teachers mainly relied on their own experiences as students to develop their pedagogies. Moreover, there was a significant reliance on the CLIx field team members to provide technical and infrastructure support, especially to just initiate the implementation process in schools. Many teachers believed that student-centred and constructivist pedagogies needed to be adopted, however during the computer lab sessions these teachers by and large adopted lecture-based methods of teaching. Furthermore, while the formative assessment methods are put in practice, but its tenets as reflected in teachers' beliefs about formative assessment and the lack of providing feedback for learning are missing. However, teachers, recognised and shared how the use of the CLIx

student modules have generated significant subject-based peer discussion among students. For example, as all computer-based activities of the module are designed as group activities, several teachers have reported how students were discussing properties of quadrilaterals among themselves in order to succeed in the *PoliceQuad* game. There are also many examples of students collaborating to create a story while using the *Open Story Tool*. The field visits and discussions in the communities of practice revealed that teachers are not exposed to the idea of reflecting on their practice or using an inquiry approach to their teaching. Largely teachers assumed that students have learned when they had completed teaching a topic. Teachers therefore feel compelled to cover the syllabus and hence found the activities to be suited for lower grades and mismatched[7] for their 9th grade class and express a lack of time to implement the CLIx module. Hence, the reflective reports and sharing of the practice-based component and the timetabling of the implementation of the CLIx modules have been the most challenging aspects to implement in the programme.

2017–2018 TPD Review—Teacher Interviews

The fourth data set consisted of teacher interviews taken at the end of the course to consolidate the post-course perspectives of select teachers provided insights at variance with some of the workshop data and in concordance with some of the other data sets. Having engaged with the course for over 12 weeks, the teachers' evaluations of the courses were nuanced. Many teachers spoke of the tool-based affordance such as the need for "more mobile-friendly features" on the course platform and the need for "more videos" to make the course "less text-heavy". They felt the courses were "too long" and were anxious about the "student-focused learning". Teachers completing the courses reported "improved teaching" as a result of the courses and appreciated the sustained engagement demanded by the programme and the continuous help given by the CLIx and RTICT teams.

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[7]The level of understanding of English, mathematics and science among a majority of the students does not match their grade level. The CLIx student modules have been designed to build conceptual understanding from the basics to the grade nine level.

Discussion

This CPD programme introduced many new ideas through the RTICT. First, the use of ICT in the teaching-learning process and for professional development and second teachers were exposed to a reflective and practice-based model of professional development. These themes have been discussed, explicating the highlights and challenges of how this CPD framework worked on the field to inform the next iteration of programme design and implementation.

Use of ICT in the Teaching-Learning Process

The use of ICT in the teaching-learning process has been mostly in passive forms,[8] where students are made to watch videos or presentations. Such ICT based resources make learning passive. The ICT resource development has been dominated[9] by private education technology companies and vendors. Both the certificate foundation course and the pedagogical courses have problematised the use of such resources in the lesson planning activities, making teachers aware of using technology when it matters as well as understanding the affordances of technologies to create an active and interactive learning experience for students. In the feedback at least 10% of the teachers in all the courses did not feel confident about making lesson plans integrating ICT, which is encouraging. Teachers have also changed their outlook towards using ICT as a replacement for classroom teaching to look at ICT as complimenting their regular teaching-learning processes (Ramanathan, 2018; Thirumalai, 2019). Teachers now see ICT use in a blended manner, adopting hands on activities, classroom discussions and field experiences along with ICT use to teach a topic. Teachers were surprised as well as enthusiastic that their professional development was not limited to workshops, and that "someone" cared and followed up about how they were going to implement their learning in the classrooms. Many teachers have

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[8] During field visits through the Digital Classroom Programme of the states, students were seen sitting in front of a television or projector screen and watching pre-recorded lessons by expert teachers of the state. Students looked disconnected and bored as there was minimal interaction. However, many of the teachers were excited about the programme.

[9] An internal study of education technology programmes conducted in 2015 to review the landscape of ed-tech programmes in India.

> **Teacher:** Today's field visit for the Ecosystem CLIx student Module. [Photo Attached]
>
> **TISS Faculty:** Wow! Seems like everyone had fun :) It is so great to be outdoors :) Did students like it?
>
> **Teacher:** Yes Madam, they liked it very much. After coming back, we had a session in our projector room and studied the CLIx Ecosystem module.
> -Science Teacher Telangana, Teacher's Community of Practice, Implementing CLIx student module

Fig. 11.7 Teachers voices 3—science teacher Telangana, teacher's community of practice, implementing CLIx student module

been continuously posting photos of implementing the student modules on the teacher communities of practice, see Table 11.3. Although teachers have not had a follow-up workshop in 2017–2018 in Telangana, implementation continues in many schools and teachers share photographs of the processes (Ramanathan, 2018) (Fig. 11.7).

Use of ICT for Professional Development

The use of ICT for professional development is relatively newer for this cohort of teachers. Teachers have participated in subject-based online email-based forums and mobile messaging groups and in workshops for creating OERs. However teachers were participating for the first time in an online course using a practice-based pedagogy. Majority of the teachers engaged actively in the workshops but found it difficult to independently implement the student modules in their schools due to a lack of confidence in handling the school computer lab or because of poor infrastructure. The CLIx field team members needed to visit the schools to initiate the process in the majority of the schools. Although schools had been surveyed for computer lab readiness at the beginning of the

programme, many schools faced infrastructure issues at the time of actual implementation. The mobile-based community of practice was designed to enable teachers to engage in course level discussions as well as discussions around their experience of implementing. Although over 80% of the teachers were keen to participate and complete the course, very few teachers were engaged in the online learning process. Initial field experiences indicated several reasons for this, including lack of time, no access to a laptop and importantly the lack of skills to engage in online learning. Teachers need to develop skills for online learning. Additionally, teachers working in rural schools typically have long commute times and hence long work days. For online learning to be active, the teachers need to be provided time during their workday to participate. Self-reporting processes were used to assess the practice component of each course. However, the inability of teachers to describe their experiences in practice impacted our ability to gauge the effectiveness and quality of the experience. Initial field experiences indicate that self-reporting of the practice component of the course by teachers is not adequate as teachers also need to develop skills of reflection as well as update their professional knowledge, especially PCK. Teachers have recognised that the community of practice is a way of seeking academic support. Although teachers are still reluctant and shy to post on the group, many teachers have connected with specific faculty members seeking academic and pedagogic support. With teacher's permission, the faculty usually repost their queries in the community of practice groups. The university-school linkages are established in this way as well (Fig. 11.8).

Systemic

At the macro level, we saw the implementation takes shape differently in each state. At each level of implementation, there have been intense negotiations with the state, for example, regarding the number of days of workshops allotted for the programme, fixing the dates, venue and other logistical considerations. Although at a macro level, the states have internalised the value of the CPD offering, at a micro level, teachers themselves did not perceive any benefits of the course programme certification as it did not have a direct impact on their career. The plan to build the capacity of teacher educators in all states did not materialise in three of the four states. There is an acute shortage of teacher educators in general (Batra, 2012) and in all states experienced teachers are taking on

> I think the posts on the community of practice are very useful.
> I try to solve all the problems posted on Fridays and I am
> compiling the problems and the solutions in my notebook as a
> reference.
>   -Mathematics Teacher Telangana, Interview
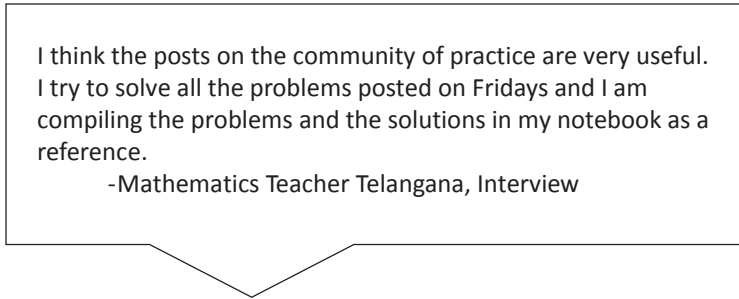
Fig. 11.8   Teachers voices 4—mathematics teacher Telangana, interview

this role. Due to the low completion rate of the online courses in 2017–2018, in 2018–2019 the certificate programme has been offered only to a select number of teachers identified as teacher educators in each state, who have been recognised by the state education department as resource persons (teacher educators) in order to create a nested model of CPD to facilitate the workshops in each state, to enable scaling the blended mode of delivery. The identified resource persons participate in two communities of practice, the teacher educator community of practice as well as their subject teachers community of practice in each state. They are also required to take the 2-credit elective course *Mentoring for Teacher Professional Development* to complete their certificate programme. The teachers who have enrolled and not completed the courses in the 2017–2018 programme continue to participate in the communities of practice and implement the CLIx student modules in schools.

CPD Programme

This evaluation research has also helped in comparing the espoused framework with the actual implementation and has brought forth some issues and challenges in the design as well as implementation processes of the programme. The digital literacy levels and teacher's access to the internet made us realise, very early in the programme that teacher's required mobile-based technology. However, the schools presented a different context and required a student platform that would work on desktops. The differing accessibility to technology has led to teachers requiring three distinct technology platforms, a student module

platform, a course platform and the mobile messaging application for the communities of practice. The use of multiple technology platforms created significant confusion, and many teachers were initially overwhelmed. How we can consolidate and connect the various platforms to streamline the technology experiences of teachers will be a design aspect to consider in future iterations. The extent of support and mentoring required to enable teachers in implementing the CLIx students module is enormous. A practice-based CPD is sustainable at scale only through robust implementation monitoring and teacher communities of practice. An entirely technology-based online community of practice will be insufficient to sustain the rigour and quality of a practice-based approach. The need to nurture local face-to-face meetups and complement it with the online community of practice activities will enable sustaining the quality of the programme at scale. Universities in India are only recently beginning to develop and offer online programmes. The changes to university structures and faculty pedagogies for online learning is evolving. This dual development needs of university faculty, as well as teachers, poses many challenges, particularly in the management of faculty time for running the courses, managing communities of practice and mentoring teachers. However, the implementation processes have now given us a more realistic picture of the structural changes and professional development requirements of university faculty as well.

The Way Forward

The NCF 2005 and the NCFTE 2009 have provided us with a strong foundation and frameworks to develop a reflective model of professional development to support teachers to transform their pedagogies to create active learning environments. These documents point us to the ideal goals of professional development. The implementation of the Reflective Teaching with ICT teacher certificate programme at scale has enabled us to understand better the processes that are required to achieve these goals, and we have moved a few steps forward in this direction with many more steps to go. By and large, educational academicians are not taken seriously by policymakers because of the disconnect from the actual field action and therefore discussions of CPD in the universities become largely academic exercises (Setty, 2016; Sarangapani, 2011, 2004). The fact that only about 2% of the teachers completed the online programme is actually a minor concern as online learning is new

and as the baseline studies (Chandran & Roy, 2017) indicate over 50% of teachers need to become digitally literate. The experiences and understanding of the processes gained have been enormous. We now have a cohort of experienced teachers in two state successfully completing the courses and playing the role of teacher educators and mentoring their peer; many teachers continue to implement the CLIx student modules in their school computer labs and classrooms, sharing their experiences in the online community of practice. We have successfully established links between schools, the university and the state education departments through the online communities of practice and field level programme support. These links have already provided us with the processes for supporting academic and pedagogic work.

A CPD framework cannot be a static artefact, as it changes with every iteration of implementation by integrating the complexities of the field and requires constant negotiation with the state education departments. Our positions in the negotiation processes have strengthened. While we submitted to most implementation design changes asked by the states in the previous two years, we now have evidence from the field to justify some of the critical design aspects. For example, to offer the *Reflective Teaching with ICT* certificate programme only when states have provided adequate ICT infrastructure in schools and creating strategies for ongoing academic and pedagogic support, both through peer mentoring and managing posts through the community of practice. The importance of situating the approaches for implementing the framework within systemic structures and policies cannot be overemphasised.

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Humanizing, Professionalizing, and Intellectualizing the Policy Goals

Transformative Problem-Posing Teacher Education: A Framework for Engaging with Teachers' Beliefs Through Teacher Education in India

Suzana Brinkmann

INTRODUCTION

Teacher education programs in India, like in many South Asian countries, have had limited success in shifting teachers toward more inclusive, learner-centered pedagogies[1] as desired by national policies.

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[1] 'Learner-centered' pedagogy is being defined here as an approach that values every learner's background, capacities, interests, and active participation, and designs learning experiences around these to engage learners in discovering new knowledge for themselves, in contrast to more teacher-centered knowledge-transmission approaches. The author's understanding could be more aptly termed 'learning-centered' education, which is similar to the understanding contained in literature on learner-centered education (see Schweisfurth, 2013) and in India's own educational policy frameworks (see NCF, 2005), but implies a greater focus on the underlying *beliefs* driving this approach than on the specific *practices* used, which may vary in different contexts (see Brinkmann, 2018).

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A major reason identified by educationists is that existing pedagogies are rooted in deeper beliefs about learning, teaching, different learners' abilities, social hierarchies, and so on, which have hindered them from significantly changing despite numerous teacher training programs (Batra, 2006; Clarke, 2001; Deshkal Society, 2010; Kumar, 2008; Sarangapani, 2003). Although a focus on teachers' beliefs has become increasingly prominent in teacher education (TE) research and practice in Western countries, this focus has rarely found its way into TE in India (Jha & Jhingran, 2005). Only a few TE programs in India have attempted to engage with teachers' beliefs (e.g. Mahila Samakhya, Rupantar, Delhi University's Bachelors of Elementary Education—see Batra, 2013; OPEPA, 1997; Ramachandran, 1998). However, these have failed to offer a comprehensive, theoretically grounded, practice-based framework suited to the Indian context that could be used by Indian teacher educators seeking to challenge Indian teachers' beliefs. This is a key gap that the present chapter attempts to address. It draws together insights based on analyzing global literature on what factors have proven effective in shifting teachers' beliefs, as well as principles gleaned from programs within India that have attempted to do the same. Based on these sources, the purpose of this chapter is to propose a framework for targeting Indian teachers' beliefs, by exploring the question of what principles and processes could be drawn upon by Indian teacher educators.

The chapter begins by presenting a rationale for engaging with teachers' beliefs within TE programs in India.[2] After pointing to the failure to engage with beliefs as one possible reason for the limited success faced by teacher training programs, the chapter argues why teachers' beliefs should become an important focus of Indian TE. This is followed by a practical discussion on whether it is justified or even possible to change beliefs through a training program. Next, the chapter proposes a theoretically grounded yet practice-oriented framework for Indian teacher educators seeking to engage with teachers' beliefs. The framework weaves

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[2]The terms 'teacher training' and 'teacher education' are used interchangeably in this chapter, as in Indian education reforms, although there is an implicit difference between them. As suggested by Peters (1967), training usually implies the acquisition of a skill through some amount of drill, without necessarily developing a deeper understanding of the underlying cognitive principles involved—as involved in the educational process. Moreover, the chapter focuses predominantly on in-service TE, although insights from the proposed framework could equally be applied to preservice TE.

key insights from two theoretical approaches that have been successfully used in Western TE to bring changes in adult learners' beliefs and practice, but rarely before applied to Indian TE: Transformative Learning (Mezirow, 1990) and Freirean problem-posing (Freire, 1970). It goes on to suggest a model for how such a journey could be initiated, with examples of specific processes and strategies that theory and research have shown to be effective in transforming teachers' beliefs. Ultimately, building a deeper commitment to learner-centered beliefs could be one way of developing Indian teachers into intellectual professionals able to determine the most effective practices best suited for helping all their particular learners succeed (which may vary from context to context).

Many Trainings, Little Change

Research on in-service teacher training in India indicates that despite over two decades of annual training for government teachers conducted under District Primary Education Project (DPEP) and Sarva Shiksha Abhiyan (SSA), teacher training programs have been ineffective in eliciting significant changes in existing classroom practice[3] (Mehrotra, 2006; Ramachandran, 2005; Singh, 2006). In fact, studies have found that teacher training seems to have little correlation with better teaching quality or learning outcomes (Bhattacharjea, Wadhwa, & Banerjee, 2011). In 2010, SSA's government-led Joint Review Mission reported that enormous investments in quality improvement initiatives under SSA had little impact on pedagogical shifts:

> The 'chalk and talk' or teacher instruction still dominates the classrooms… After a number of years of implementing in-service teacher training, it is not clear what type of impact such training has had on improvements in the classroom processes. (Government of India, 2010, pp. 35–36)

The picture in many other South Asian countries is not that different. Research indicates that numerous interventions in the region to improve the quality of teachers and introduce contemporary pedagogies like learner-centered and active pedagogies have had mixed results

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[3]This chapter focuses on teachers in the government sector, which caters to nearly two-thirds of children enrolled in elementary schools—primarily from lower socioeconomic backgrounds (NUEPA, 2015).

(Asian Development Bank, 2017). Most countries in the region have poor quality TE if at all, typically taught through teacher-centered transmission-based pedagogies that contradict the learner-centered approaches they are trying to promote. This along with poor monitoring and on-site support to working teachers makes pedagogical changes difficult to sustain, with the result that teachers in the region have struggled to shift from teacher-centered to more learner-centered pedagogies (Brinkmann, 2017).

There are various factors possibly contributing to the low impact of teacher training programs in South Asia, such as whether the training methodology reflects the approach it seeks to promote, practical classroom constraints, or lack of systemic alignment. However, one crucial but largely unexplored issue is that of the prior beliefs that teachers bring to their training programs. A growing body of international research has pointed out that teachers arrive at TE programs with deeply held beliefs about teaching and education, shaped by thousands of hours spent in classrooms as students, which act as filters to how they interpret training content (e.g. Pajares, 1992; Richardson, 1996; Sanger & Osguthorpe, 2011). These scholars have argued that the "failure to recognize the role beliefs play in practice will destine these educational initiatives to failure" (Cantu, 2001, p. 150), and that engaging with teachers' beliefs "must serve as the primary currency of teacher education" (Sanger & Osguthorpe, 2011, p. 572). But despite the growing focus on teacher's beliefs in Western contexts, this remains an unaddressed area in both TE research and practice in South Asia. This may shed some light on the limited success faced by TE in India and other South Asian countries in shifting pedagogical practice as highlighted above, and may be a means of making TE more effective in bringing pedagogical shifts in South Asia.

WHY INDIAN TEACHER TRAINING SHOULD TARGET BELIEFS

In the quest to determine a framework for addressing Indian teachers' beliefs within Indian TE, the current section looks at what beliefs research indicates should first be targeted in attempts at pedagogical change, and on what basis we are even justified in trying to change such beliefs. Although *teacher beliefs* is still a nascent field in India, the most in-depth study on this topic in an Indian context is Brinkmann (2016, 2018). This study utilized mixed methods to compare the beliefs of teachers displaying less or more learner-centered practice, and thus

Table 12.1   Teacher beliefs associated with lower vs. higher learner-centered practice

Belief dimensions	Beliefs of teachers with less learner-centered practice	Beliefs of teachers with more learner-centered practice
3 core beliefs:		
1. Inequality vs. equality of human worth and ability	Students from 'lower' (caste/class) backgrounds are less capable or deserving of learning	All children must and can learn, if teacher gives enough efforts
2. Knowledge as transmitted vs. constructed	Knowledge must be transmitted from teacher/textbook	Children construct knowledge through active exploration
3. Purpose of education: material success vs. social transformation	Doing well in exams to get a lucrative, high-status job	Developing values and skills that contribute to a more ethical, just society
3 peripheral beliefs:		
4. Hierarchical vs. democratic relationships	Children should be controlled through fear and discipline	Teacher–student relationship should be democratic and friendly
5. Teachers' duty: completing task vs. ensuring outcomes	Teacher's duty is to 'complete the syllabus'–lack of learning is the student's fault	Teacher feels personally responsible for ensuring all students learn
6. Low vs. high professional commitment	Low sense of commitment, accountability or work ethic	High professionalism, with teaching seen as a calling

Source From Brinkmann (2018)

beliefs potentially associated with a shift to learner-centered pedagogy (summarized in Table 12.1).

Brinkmann (2018) argued that to more effectively facilitate a shift to learner-centered pedagogy, TE would need to target specially teachers' core beliefs about equality, knowledge, and purpose. Learner-centered pedagogy presupposes a belief in children's equal value and potential, in learning as knowledge construction, and in the purpose of education as social transformation. This is contrary to the beliefs found prevalent among many teachers in different parts of India, which Brinkmann pointed out can be traced to oppressive ideologies[4] dominant in Indian

[4]An ideology is a set of beliefs that supports the dominance of certain groups in a society and the oppression of others, which may become internalized as natural, taken-for-granted, common-sense wisdom—a process Gramsci (1971) called 'hegemony'.

society, enabling an elite upper-caste minority to preserve their dominance in Indian society. Yet, there is little research on how such cultural beliefs could be engaged with. For example, a few scholars have stated that existing cultural beliefs must be kept in mind (Rao, Cheng, & Narain, 2003) or even be actively changed by developing 'an alternative worldview among teachers' (Batra, 2009, p. 121), yet none have presented a concrete framework for engaging with such ideological beliefs. The current chapter attempts a first step in this direction.

Any discussion on targeting teacher beliefs must confront ethical questions regarding whether we are justified in trying to change beliefs grounded in cultural traditions, who should determine which beliefs need to change, and which 'desirable' beliefs TE programs should promote. As Stuart and Thurlow (2000) argued, teachers' beliefs cannot remain unexamined when some of them may contribute to the perpetuation of pedagogies counterproductive to student learning. Raths (2001) argued that certain beliefs such as attributing students' academic failure to external factors like the child's family background may end up limiting the ways in which these students' learning problems are addressed— turning them into 'victims, one might say, of teacher belief systems' (p. 2). Further to beliefs affecting student learning is the issue of beliefs that may be supporting pedagogies oppressive to certain groups. Freire (1970) offered a comprehensive analysis of how 'banking' education serves to dehumanize students, rob them of the capacity to think and act for themselves, and indoctrinates citizens to passively accept and adapt to oppressive social conditions. Thus in addressing teacher beliefs, one could use the lens of determining which cultural beliefs among teachers may be hindering learning or may prove oppressive to marginalized learners in that society. As Sanger and Osguthorpe's (2011) concluded,

> …even if we assume that the content of educators' beliefs are far from sufficient for predicting practice…the explicit discussion of what educators believe, why they hold those beliefs, and the practical implications of the beliefs held, must serve as the primary currency of teacher education. (p. 572)

Can a Training Change Beliefs?

The teacher beliefs literature has shown a mixed picture regarding whether teachers' beliefs can indeed be changed through TE programs. Many studies have emphasized that beliefs (particularly those formed

in childhood) are strongly resistant to change, and that belief change during adulthood is rare, often necessitating conversion or a *gestalt* shift (Nespor, 1987; Pajares, 1992). Some studies have indeed shown evidence of beliefs changing as a result of TE, and have identified specific factors within TE programs that have shown to contribute to conceptual changes in teachers' beliefs (e.g. Ashton & Gregoire-Gill, 2003; Gardner, 2006; Jackson, 2008; Lundeberd & Levin, 2003): These include training strategies like linking theory to practice, opportunities for self and group reflection, engaging teachers' emotions, or building teachers' conviction and self-efficacy in implementing the new practice.

Rather than asking *whether* TE can lead to change in teacher beliefs, it is perhaps more appropriate to ask what *kinds* of TE processes are more likely to contribute to change in teacher beliefs. What TE can do is create an environment where teachers become conscious of oppressive beliefs they may have imbibed, of the kind of practice and society these beliefs are perpetuating, and of the fact that their beliefs and practices are either reproducing or transforming dominant oppressive structures. Teachers can be exposed to other alternatives, begin questioning their own beliefs, and intentionally choose the kind of beliefs they wish to promote through their practice—whether they wish to reproduce or transform oppressive structures.

Ultimately no particular training approach can guarantee that transformation will take place. One must decide for oneself to undergo this shift in consciousness—it cannot be done to another (Cranton, 2002; Dyson, 2010). Change is a personal choice and individuals may choose to adhere to antidemocratic values. But ultimately the value lies not only in the outcomes but also in the process itself: even if teachers do not change exactly in the ways in which we expect them to, there is still value in teachers engaging meaningfully in this process of reflection. Moreover, it is not likely that a single TE workshop or program will result in complete transformation. But what a transformative educator can do is set the stage and provide the environment and conditions that are likely to initiate a transformative learning journey.

The previous sections have concluded *why* targeting teachers' beliefs should become a central objective of Indian TE in order to increase its effectiveness in strengthening existing pedagogies. It has highlighted some key beliefs that could be a starting point to address as part of national attempts to shift toward more learner-centered pedagogies, and has discussed some ethical as well as practical considerations involved in

this task. Next, the chapter turns to *how* such a transformative journey can be initiated among teachers, laying out a proposed framework with key principles and practices that teacher educators in India could draw from.

Proposed Framework: Transformative Problem-Posing Teacher Training

This section lays out the theoretical foundations of a 'Transformative Problem-posing Teacher Education' (TPTE) framework. The framework brings together key insights from two theoretical approaches explicitly aimed at transforming adult learners' beliefs and practice, but rarely brought together to be applied to TE, and even less so in an Indian context: Transformative Learning and Freirean problem-posing.[5]

Transformative Learning (TL) developed in the past three decades in the field of adult education based on the writings of Jack Mezirow (1990; Mezirow & Associates, 2000), and has been further elaborated by Cranton (2002, 2006), Dirkx (1998), King (2005), Taylor (2006, 2009), and others. TL occurs when individuals reflect self-critically on jarring experiences, become aware of problematic or distorted beliefs, examine their validity through rational discourse, and opt for more open, better justified ways of seeing themselves and the world (Dyson, 2010; Mezirow & Associates, 2000; Taylor, 2009). The process of TL is triggered by people or experiences that challenge one's fundamental worldview assumptions: e.g. resulting from a life crisis, a challenging interaction, an unexpected question, or a carefully designed classroom experience (Brown, 2004). TL offers a well fleshed out, theoretically grounded paradigm that aims explicitly at enabling adult learners to challenge previously unquestioned beliefs, leading to transformed self-perceptions and action.

Freire expounded his theory of transformative education two decades before Mezirow, from his adult literacy work among rural peasants in Brazil. While Mezirow himself was influenced by Freire, Freire's focus was more on societal transformation, in contrast to Mezirow's emphasis on personal transformation. Like Mezirow, Freire also saw critical

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[5]I found very few examples of frameworks that explicitly blend Transformative Learning with Freirean Problem-Posing (e.g. Brookfield, 2001; Brown, 2004; Curry-Stevens, 2007), even fewer applied specifically to TE, and none within an Indian context.

reflection and dialogue as central to transformative education, but for Freire the focus was enabling *conscientization*—a process whereby learners become critically aware of oppressive social, political, or economic forces shaping their society, and the ethical necessity of taking action against them (Freire, 1970). For Freire, the goal of education was creating a more just and equitable society, and reflection only became truly critical when it led to transformative social action against oppressive social practices or ideologies. To facilitate this process, Freire proposed a problem-posing approach, which taught students to analyze and act upon their reality, viewing issues not as given but as problems that they can work to resolve.

TL and Problem-posing both offer useful avenues for exploration in the quest for a framework for Indian TE seeking to bring changes in teachers' beliefs and practices. TL offers a coherent, research-based theory and methodology (applied extensively to TE) for facilitating adults in changing beliefs toward personal transformation. In turn, problem-posing broadens this scope from personal to social transformation, seeing the two as interlinked. It offers a stronger power analysis of how individual beliefs are shaped by wider cultural hegemonies, equipping learners with a sense of agency to engage in collective social action toward cultural transformation. This is a focus which TL can benefit from, Moreover, both TL and problem-posing embody many principles of a learner-centered approach, but applied specifically to adult education. This makes them particularly relevant for TE attempting to shift teachers to a learner-centered paradigm, since teachers must first themselves experience this paradigm before they can successfully implement it. A Transformative Problem-posing approach could illustrate what learner-centered education looks like when applied to TE: an approach that draws upon teachers' prior experiences and beliefs, getting them to reflect critically and arrive at their own answers, within a safe and democratic environment.

Table 12.2 summarizes some key ways in which a TPTE approach would differ from current government TE approaches predominantly in India (as described in Batra, 2013; Dyer, 2004; Singh, 2006).

Firstly, TPTE is aimed at both personal and social transformation. If beliefs change requires a conversion or 'gestalt shift' (Nespor, 1987; Pajares, 1992), this inevitably also affects other areas of one's life, often irreversibly, implying tremendous risk and possibly some fear. Going further, Freire sees liberation not as a purely psychological shift

Table 12.2 Current TE vs. transformative problem-posing TE

Current TE	Transformative problem-posing TE
The goal is adoption of certain practices	The goal is personal and social transformation
Focuses on imparting knowledge and techniques	Focuses also on examining deeper beliefs and ideologies
Learning content is predefined by the textbook/educator, and passed down to learners	Learning is derived from learners reflecting on experience and arriving at own answers
Targets mostly the rational/cognitive domain	Targets the 'whole' person, particularly emotional and spiritual dimensions

in consciousness, but involving the transformative action of humans on their world, to recreate a more democratic society (Roberts, 2000). Secondly, TPTE targets not only teachers' practice, but also the deeper beliefs in which practices are grounded, as well as tracing how one's own beliefs or actions are shaped by ideology and may be perpetuating inequalities. The goal is to help educators realize their role and responsibility for creating a more inclusive, democratic society, to identify and reject taken-for-granted beliefs rooted in ideological manipulation, and to consciously choose beliefs and practices based on a commitment to the common good (Brookfield, 2001; Brown, 2004; Curry-Stevens, 2007; Freire, 1970).

Third, the goal of TPTE is not to pass down new knowledge like learner-centered pedagogy from the 'expert' to the learners, but to enable learners to first experience learner-centered pedagogy for themselves, and then reflect on these experiences in order to discover these principles for themselves. This requires faith in learners' own capacity to reason and arrive at answers for themselves. Finally, a TPTE approach involves a holistic orientation that engages all dimensions of a person's being (affective, intuitive, thinking, imaginative, physical, spiritual), by using diverse methodologies such as music, art, poetry, story, film, movement, and so forth. Recent scholars have highlighted the importance particularly of emotional and spiritual dimensions in motivating beliefs change (Ashton & Gregoire-Gill, 2003; Cranton, 2006; Dirkx, 1998). Research has found that learners rarely change through a rational

'analyze-think-change' process, and are more likely to change through a 'see-feel-change' sequence (Taylor, 2009). Curry-Stevens (2007) found that facilitating an ideological shift from inequality to inclusion encompassed a spiritual change: from relations of domination to pursuing right relationships, from self-centeredness to a concern for the common good, from disengagement to an enacted commitment to social justice. Korthagen (2004) similarly describes a spiritual level of 'mission' or 'interconnectedness' at the core of what drives teachers' identity, beliefs and practice, relating to questions of purpose, calling, personal inspiration or meaning—'the question of what it is deep inside us that moves us to do what we do' (p. 85).

Process: Sparking a Transformative Journey

Having outlined the theoretical foundations of a framework for Transformative Problem-Posing TE, this section proposes a model of how such a journey could be facilitated (see Fig. 12.1), with examples of specific processes and strategies. These stages are not necessarily discrete and linear, but interwoven with one another throughout the TE process.
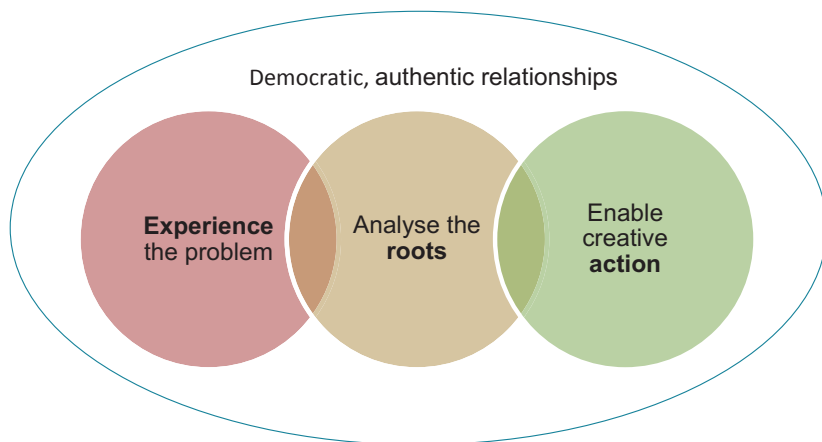
Fig. 12.1   Model for transformative, problem-posing teacher education

Build Democratic Relationships: Nurture an Authentic,
Learner-Centered Environment

Freire's approach was premised on a democratic, dialogical relationship between educator and learners, founded on shared power, mutual trust, respect, humility, and love. He disrupted teacher–student hierarchy:

> The teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow. (Freire, 1970, p. 80)

A democratic classroom is one where opinions or decisions are not merely asserted as fact but constantly negotiated through dialogue and consensus, where learners' different agendas and interests are respected, and their curiosity encouraged (Freire, 1998). TL literature also highlighted the necessity of nurturing authentic, meaningful relationships for fostering TL (Cranton, 2006). It is through building trusting relationships that one develops the confidence to cope with the threatening and emotionally charged experience of questioning one's foundational beliefs. The transformative educator must thus take time for well-crafted team-bonding activities in order to develop these support networks within the group. For TL to occur, the group must be small enough and the emotional environment inclusive and safe enough for all learners to feel comfortable to open up, share honestly, and question their beliefs. An authentic educator requires willingness to be open and genuine about their own experiences and feelings, and courage to invite learners to question or even disagree with what they say—rarely done in Indian classrooms.

Indeed, after years of working with Indian teachers, Paliwal & Subramanian found that 'it is the democratization of the training process that holds the key to change in beliefs and attitudes' (cited in Batra, 2005, p. 4352). Most teachers would have experienced the same hierarchical relationships in their training programs that characterize most Indian classrooms. Allowing them to experience radically different democratic relationships where their contexts, expectations, experiences, and insights are both invited and valued, can itself be a transformative experience. Such experiences can powerfully impact teachers' beliefs of valuing themselves and others as equal, valuing democratic relationships, and learning to value their own and others' uniqueness.

Experience the Problem: Design Experiences to Raise Cognitive Dissonance and Empathy

A transformative journey often begins with a trigger—some kind of engaging experience or 'disorienting dilemma' that raises awareness of a problem and of one's problematic beliefs (Mezirow & Associates, 2000). This experience must usually target both cognitive and affective domains, to create a feeling of dissatisfaction with the current reality, and initiate the motivation for seeking change.

Cognitive dissonance occurs through some activating event that challenges one's existing assumptions or violates one's expectations, by confronting someone with a different perspective which cannot be assimilated into their existing worldview. This raises awareness of one's previously subconscious assumptions, which may now prove unsatisfactory in making sense of this new experience or information, and this can trigger a process of belief change in order to restore equilibrium (Pajares, 1992). Below are examples of strategies that can help trigger cognitive dissonance and help unearth teachers' assumptions (synthesized from Cranton 2002, 2006; Raths, 2001; Richardson, 1996):

- Analyzing problem-posing 'codes' taken from teachers'/children's lives (dialogues, skits, newspaper/magazine clippings, pictures, cartoons), to identify an existing problem (e.g. low learning, discrimination in schools).
- *Encountering new information*: research evidence, case studies, documentaries (e.g. about children's experiences or capabilities).
- *Encountering a different viewpoint*: critical debates, games, discussing controversial statements/readings, films, novels, stories.
- *Seeing familiar things from a different perspective*: student autobiographies, reflecting on past schooling/teaching experiences, metaphor analysis.
- *Confronting own assumptions*: presenting teachers with videos of their teaching, or transcriptions of their interviews with their assumptions highlighted.
- *Realizing children's capabilities*: observing children, analyzing children's work, experimenting activities with children.

Activating events must also engage teachers' emotions, especially if confronting deep-rooted beliefs and prejudices shared across

communities. Overcoming beliefs such as inequality or instilling a sense of purpose and mission for social transformation requires creating empathy—enabling teachers to put themselves in marginalized learners' shoes. This can help generate the deeper calling and commitment for marginalized children needed to motivate teachers for change. Educators must help teachers personalize the problem, relate it to their own lives and experiences, and nurture an internal desire for change. Some strategies that can help facilitate this include:

- *Inspiring a vision for change*: showing examples of innovative classrooms, inspiring quotes, showcasing inspiring teachers or role models (through videos, stories, real-life examples, personal narratives).
- *Creating empathy with victims of oppression*: films, stories, novels, poems, songs, journaling, art, imagination, sharing own stories of discrimination.
- *Venturing into the world of marginalized learners*: visiting children's communities; videos, interviews or writings where children speak of their experiences.

Analyze the Roots: Facilitate Critical Reflection and Dialogue to Examine Assumptions and Ideologies, Leading to New Commitments

TL, Problem-Posing, and beliefs change literature have all emphasized critical reflection and dialogue as central to the process of transformation. The educator's role is crucial in debriefing with thought-provoking questions that help learners reflect on the above disorienting experience. This may raise awareness of some contradiction among one's thoughts, feelings, and actions. Critical reflection involves articulating one's previously taken-for-granted assumptions, evaluating their sources, consequences, accuracy, and validity in light of new knowledge or experience, and considering alternative perspectives (Brookfield, 2006; Cranton, 2006; Jackson, 2008). In a TPTE model, this would also involve unpacking how one's assumptions have been shaped by dominant cultural ideologies, and how these may contribute to unjust power relations.

Dialogue provides opportunities for learners to exchange opinions and ideas, receive support and encouragement, seriously engage with

diverse perspectives, and recognize the 'shared' nature of their experience (Cranton, 2006). Reflective dialogue is ultimately aimed toward reframing one's assumptions which had hitherto been uncritically accepted as common sense wisdom, into a logically consistent, coherent worldview that one intentionally chooses to adopt (Jackson, 2008). This involves making a conscious choice about what beliefs and values one wishes to stand for, and voicing new or renewed commitments toward certain values and to practices consistent with these values. Voicing public commitments and tentative new beliefs before peers can help solidify and prepare them for action (Tillema, 1997).

Below are examples of strategies to facilitate the above (Ashton & Gregoire-Gill, 2003; Brookfield, 1995; Cranton, 2002; Lundeberg & Levin, 2003; Raths, 2001):

- *Root cause analysis*: Encourage learners to dig deeper to root causes of problems identified, including dominant ideologies, socioeconomic factors, and so on.
- *Reflective writing*: journaling, life histories, writing educational autobiographies.
- *Reflecting on practice*: reviewing values and significant experiences; examining inconsistencies between vision/values and practice; analyzing teaching strengths; critical incidents (share about a best/worst past experience, and others help analyze underlying assumptions); examining teaching scenarios through different theoretical lenses.
- *Research*: examining research evidence, conducting own research/action research.
- *Dialogue*: critical questioning, debates, having to convince others of one's position, guided discussions, group brainstorming, case studies, problem-based learning, dialogue journals (which get passed around, with each adding an idea in response to others).
- *'Trying on' alternative viewpoints*: visualization exercises, role-play, writing/speaking/debating from a perspective opposite to one's own.
- *Creating an environment where critical reflection is a group norm*: Educator models critical reflection, questions own statements, and encourages learners to do the same.

Enable Creative Action: Brainstorm and Practice Doable Strategies Within Existing Conditions

Real beliefs change once new ideas are translated into action. Thus the final stage is to help learners set concrete goals for action, and to build the needed competencies, confidence, and collaborative networks to enable them to implement incremental changes. The educator encourages learners to search for solutions themselves to the problems identified, through group brainstorming and consensus on new paths of action that are achievable and within their power. This could include practical strategies to implement their new beliefs and address real-life issues in their classrooms, schools, personal lives, or communities. The goal is to empower teachers as agents of change, to help them realize they have the answers to their own problems. This can simultaneously help tackle teachers' view of themselves as consumers of knowledge transmitted by others, and help them learn to value a process of constructing knowledge and brainstorming actions they can take—which they are then able to replicate in their classrooms.

To enable transformed action, training must equip teachers with the competencies and confidence they require to implement new practices. This can be facilitated by adopting a practice-based TE approach that provides ample opportunities for practical demonstrations and for learners to practice new skills during the training itself with adequate support and feedback from their teacher educator and peers. Examples include videos or visits to innovative classrooms, simulations, microteaching with peer feedback, or real-world experiential learning projects (Cranton, 2002). According to Guskey (1986), training is most effective in changing teachers' beliefs and practice when it offers concrete, practical teaching ideas, directly linked to teachers' contexts and curriculum, presented in a clear and explicit way, and leading to direct improvement in students' learning outcomes. Moreover one should not expect teachers to implement major changes all at once, but incremental small steps that do not involve too much disruption or extra work (Fullan, 1985). It is important that the training spend large amounts of time reflecting on existing environments and work cultures, and listing doable steps that teachers can begin implementing immediately within existing structures—otherwise the training is likely to result in apathy (Ramachandran, 1998). Teachers' confidence is built and their new beliefs reinforced once they experience a small taste of success, or once

they see evidence of positive impact on students' learning. This can be facilitated by encouraging teachers to undertake action research, collecting students' feedback, or establishing mechanisms for teachers to receive regular feedback on learning improvements.

Conclusions: Transformative Training in India

This chapter has argued why teacher education in India needs to begin addressing teachers' beliefs in order to successfully bring changes in teachers' practice, and has proposed a potential framework for doing so. Overall, addressing teachers' beliefs within teacher education could be a possible means of empowering teacher agency, which Batra (2006) identified as the most serious unaddressed issue in Indian education reform (see also Batra, 2005; Dyer, 2004; Ramachandran, Bhattarcharjea, & Sheshagiri, 2008). Currently, in most teacher education programs, teachers are expected to implement learner-centered practices designed by 'experts' far removed from their context. Instead, building commitment to a set of core learner-centered beliefs[6] could help empower teachers as reflective practitioners able to devise context-specific strategies that still align with learner-centered principles. The goal is to build teachers as professionals able to continually reflect and bring changes to their own practice. Moreover, building deeper commitment to learner-centered beliefs can provide the needed motivation to put in the considerable effort required to upgrade their pedagogical knowledge and skills, turning the change process into one internally driven rather than externally imposed. Ultimately it is this internal conviction that can generate teachers' *will* to adopt training messages—a key ingredient that Dyer (2004) found missing in Indian pedagogical reforms.

   Although the above framework has until now not been implemented in a comprehensive manner, one can find a few examples of training programs in India that draw from some of the above principles in order to engage with teachers' beliefs. Two such programs that stand out specifically in the government sector are *Rupantar,* which sought to challenge teachers' attitudes toward tribal children in the state of Orissa (OPEPA, 1997), and *Mahila Samakhya*, which sought to empower women and combat discriminatory gender attitudes in several Indian

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[6]Such as equality, knowledge construction, a sense of mission, and other beliefs listed in Table 12.1.

states (Ramachandran, 1998). It would be worthwhile to analyze such programs to build further upon their lessons, and to gain further insight into how the theoretical approaches highlighted in this chapter can be adapted within an Indian context. The transformative, problem-posing framework proposed here may help provide a theoretically grounded frame through which to analyze and build upon such experiences. The scarcity of examples of TE programs in India that have successfully challenged teachers' beliefs makes it difficult to ascertain what kinds of TE processes will prove most efficacious for promoting change in teachers' beliefs within this context. But successful examples from other contexts suggest that such changes are indeed possible, and the present chapter argues that teachers' beliefs is too important an issue *not* to address.

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Not Under My Parachute: How Co-curricular Offerings Exacerbate Inequities Under the Right to Education Act

Supriya Baily and Swati Sodhi

The premise of this book is built on two guiding questions: what is the work involved in teaching students in South Asia and what kinds of *opportunities to learn* support the development and preparation of teachers (Setty, 2018, personal communication)? While we would argue that the work involved in teaching students is contextual to individual, familial, associated with communal and national needs, the opportunities to learn for teachers requires attention to be paid to inclusion of systematic theory in teacher preparation, longer preparation periods, greater understanding of ethics and culture, and further exploration of teacher research and agency (Basheer, 2014). Furthermore, there are certain specific policies and practices in the South Asian context that make the teaching

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and learning processes unique and worthy of greater study. There is also a plethora of other people who play a part in the teaching and learning process, who have a ringside view to day-to-day practices and often have little input on what they see unfolding in schools.

This chapter explores, through narratives of practice, the overall concerns identified by a group of trained professionals who participate in school-based extra-curricular activities (ECA). This chapter seeks to highlight ways in which teachers might be able to bridge some of the explicit and implicit biases exhibited in school culture as a result of these narratives. Our chapter seeks to (1) address how the policy goals set out in RTE have exacerbated some of the more dehumanizing and unprofessional aspects of the teaching and learning process as it relates to ECA; (2) document certain moments of inequity and injustice identified by professionals who are serving in teaching roles in ECA activities; and (3) provide some analysis on how teacher education programs and institutions can adapt to address such issues in the preparation of teachers. The establishment of RTE cannot be studied in a vacuum.

Making explicit how teachers both perceive the learning process and that connection to how they actually teach, allows for recognition that one impacts the other and a "third dimension of the visible, observable and measurable impact of the teachers' pedagogy on the learners themselves that renders those pedagogic practices 'effective'" (Westbrook et al., 2013, p. 15). In other words, pedagogy is reflected in what teachers think and do, but with limited awareness of what happens in extra-curricular spaces, there is a gap in pedagogy, because of the lack of clarity on student experiences in such spaces.

Background and Context

The current policy ramifications in India are rooted in the Right to Education (RTE) Act, now approaching its ten-year anniversary, with mixed evaluations. One of the primary outcomes of the RTE Act was the inclusion of marginalized students in the burgeoning private school market. The inclusion of students in spaces that have hitherto been relatively off-limits for students of certain backgrounds or income levels, has offered fresh challenges for teachers and administrators. Research on students in schools attending under the RTE umbrella has exposed experiences that have highlighted practices of marginalization. For instance,

the RTE Act only provides educational support for students up to the age of 14. The board exams are usually taken at ages 15–16. Anecdotal evidence shows that this creates a situation where students who cannot afford to stay in the private schools are often not welcomed back after they age out of the policy mandates. Some schools do make exceptions, but for the most part, do not, and these students are then oftentimes ostracized when they return to their local schools, if in fact they do return to school.

The inclusion of students into the extensive and mostly middle-class private school system across the whole country has faced numerous challenges around implementation (*Times of India*, 2013), but there have been unforeseen trials that have included a concern around shifts in school culture. The culture of private schools in India has sought to institute a particular school experience for fee-paying students. The establishment of the RTE policy and the corresponding mandates can be seen as well intentioned, but implementation of the policy highlights the larger structural inequities of caste, class and religion. In terms of educational practices, the presence of co-curricular or ECA has been a vital component of middle-class education in India, which has been a relatively ignored aspect of teacher preparation. While RTE does not make explicit any goals around ECA, it does speak to the need for an equitable learning environment, which would include participation in school-based ECA activities. ECA affects both school culture and student learning, both of which have tremendous influence on the whole child for their overall growth and development and therefore it becomes critical for us to explore how this space, in schools, that could be seen as the "third space", is experienced by students who come into this private schools under the RTE Act.

Undergirding our chapter are three central assumptions:

1. Private schooling in India is a growth industry with new schools opening frequently in an effort to meet demands of a large swathe of population who see education as the vehicle for any sort of class advancement across all income brackets;

2. Private schools jockey for parents who can afford higher fees, and as such seek to provide a medley of opportunities for students in an effort to market their schools across academic, sport and extra-curricular opportunities to be appealing to a certain caliber of

"customer". The more elite the school, the more varied the opportunities, especially within the extra-curricular domain; and finally,

3. The Government of India sought to equalize education through the RTE Act and the mandate to include students from economically weaker sections (EWS) of society into private schools was an effort to dismantle structures of privilege that are present in the private–public school divide that was growing exponentially prior to the establishment of RTE.

Our goal is to provide those reading this chapter an opportunity to learn about the lived experiences of their students, to provide a deeper understanding of how teaching and learning, under very specific policy mandates is realized and represented in certain types of schools. The experiences shared in this chapter allow for a glimpse of how teaching practices outside the traditional confines of the curriculum can affect what happens in schools for individual students.

Rationale for the Study

This chapter is a collaborative effort by the two of us who have worked in education for over twenty years, one as a teacher educator and the other as a partner in private schools supporting co-curricular activities. Supriya Baily has worked with teachers in Southern India and has taught in a nonformal education program mostly situated in elite private schools in India prior to the establishment of RTE. Swati Sodhi is currently engaged through a nonformal education program catering to private schools in Delhi to support and supplement ECA in schools. This chapter seeks to provide a voice as participant/observers, from a third space in schools—that of being both *a part* and *apart* as a way to engage conceptually, based on first-hand experiences, of working with teachers and students to address challenges that remain unexplored within the implementation of RTE.

While there have been numerous large-scale partnerships between Non-Governmental organizations (Bazaz, 2016), there are also countless small-scale partnerships that provide a varied lens into the culture and actions of schools. Sodhi has worked with three local NGOs (pseudonyms to be provided to protect the identity of the schools that work with her), through which we will draw vignettes of student experiences

in private schools, which address the tensions between the aspirations of the Act, and the realities of implementation. Taking a critical approach and recognizing that teachers need company at the edge (Berger, 2004), when they seek to focus attention on inequities in their practice, this chapter will illustrate the multiple perspectives that are at play when the needs, expectations and pressures of a family, a school and a country are all demanding education to be the parachute to carry everyone to a more secure future.

Right to Education at 10

Approaching the ten-year anniversary of the RTE Act, arguments on the success, challenges and failures of both conception and implementation of the Act are beginning to emerge. India has struggled over the past 20 years to make inroads on ensuring a more socially just educational experience for all students (Baily, 2012). The establishment of RTE was designed to focus on issues of justice and equity in schools, while also making up for decades of inattention by policy-makers toward education for marginalized communities (Bazaz, 2016). Among the many components of the Act, three are relevant to our chapter, including the delivery of free and compulsory education up to the age of 14; the development of curriculum to "ensure the all-round development of the child, building on the child's knowledge, potentiality and talent" (Sinha & Verma, 2014, p. 164); and finally, the expectation that 25% of private school admissions reserved for students from EWS of society. While these scholars have documented the academic challenges facing students, attention must also focus on aspects that support the 'whole child' development, including co-curricular activities and peer and social networks in schools. While academics remains a critical component of education, the comprehensive experience of private schools in India remains its elaborate co-curricular offerings for students. Between performing arts, visual arts, literary festivals and music and dance performances, students in Indian schools, especially those in private schools, have a plethora of activities to choose from.

We argue these co-curricular activities are central to the identity of private schools and as such the experiences of EWS students in these schools are shaped by what Rizvi (2014) calls 'the social imaginary' of elite schools. This social imaginary, as Rizvi (2014) defines within

the context of elite colleges in India, speaks to the assertion of "social distinction, to represent their prestige as something self-evident and natural" (p. 292). The social imaginary of such schools centers on values where students balance colonial and nationalist traditions and their ability to value connections to global experiences and opportunities. Success in school often depends on academic success as well as leadership and active involvement in these pursuits. The symbiotic fostering of social and peer networks is in tandem with these activities, linking two aspects of education, providing a window into the challenges facing students in private schools who have entered as a result of the establishment of the RTE Act. This narrative is actively adopted in private schools catering to middle-class and upper middle-class families who pay high fees for their child to experience a carefully molded school experience, encompassing both national and international aspirations. Yet within these complex social networks, students who attend based on the RTE Act, remain marginalized.

This marginalization of such students remains unjust and oftentimes cruel. Some schools have interpreted the law more loosely focusing on outreach rather than inclusion (Sriprakash, Qi, & Singh, 2017). Cheruvalath (2015) documents how students in one private school cut the hair of students who were admitted under the reservation quota so that teachers would be able to distinguish those students from the others. These actions are neither isolated nor unpopular. There is particular concern that in India

> the beliefs of teachers and principals also affect the development of the children coming from the EWS. They believe that - these children do not possess the right environment at home or 'home status' to enable them to perform well in school and so they are weak in studies and continue to remain thus. (Deepti, 2016, p. 18)

Teachers are buffeted by numerous tensions in private schools, including demanding administrative oversight and parental involvement in the schools as well as limited preparation on how to understand their own prejudices and biases. This is alongside other expectations to build cohesive classroom communities. In what follows, we discuss how ECA can either support or hinder student learning and provide a deeper understanding among teachers on ways to address the inequity embedded in the RTE Act.

The Benefits and Barriers
in the Extra-Curricular Space

Research shows that participation in extra-curricular opportunities benefits students in numerous ways including supporting academic and non-academic learning and fostering strong relations between students and teachers, as well as potentially enhancing students' connection to the school itself (Stearns & Glennie, 2010). The benefits of a child's participation in an extra-curricular activity extend beyond the skill acquired within the activity itself. Participation in ECA has been shown to develop social bonds among peers, promote belonging, improve academic achievement and provide motivation to stay in school rather than drop out (Stearns & Glennie, 2010). Students learn both academic and non-academic skills that can be applied in other contexts. Bradley and Conway (2016) wrote that any school activity that met multiple times each week in an organized fashion stimulated greater overall "motivation, conscientiousness, openness to experience, and increased self-efficacy" (p. 723). Rajaraman et al. (2015) found that extra-curricular physical activity also combated social exclusion as students made strong connections to one another outside of the classroom. Students themselves commented that extra-curricular physical activity helped them to feel more mentally alert and study more effectively (Rajaraman et al., 2015).

McCabe, Modecki, and Barber (2016) argue that ECA have been shown to not only enrich students' lives but also make them physically safer through decreased risk for substance abuse, and participation in ECA at a young age can help guide children on positive developmental paths. While risky behaviors are often mitigated by participation in extra-curricular opportunities, hardworking and "self-disciplined" adolescents usually choose to participate, and there are concurrent and congruent spillover effects that promote student learning and development (McCabe et al., 2016, p. 2302). Within the context of India, there are also studies that highlight that student satisfaction at the university level depends on a number of factors, including the presence of and the students' abilities to participate in ECA (Kaur & Bhalla, 2018). While studies have highlighted the discrepancies between students' socio-economic status to access to physical activity (sports) (Rajaraman et al., 2015), there has been limited exploration of structural barriers to participation in other ECA (Stearns & Glennie, 2010).

Education in India is competitive and stressful, with high stakes examinations for students who aspire for any movement across social and economic lines. Access to higher education is woefully undersupplied, with far more demand than supply. The British Council (2014) anticipates that even if higher education targets are met in 2020, over 100 million qualified applicants will not have access to education at the tertiary level. Deb, Strodl, and Sun (2015) found that nearly two-thirds of students in a Kolkata school suffered from higher rates of anxiety and mental ill-health due to academic stress, with lower income students suffering even further. Deb et al. (2015) argue that access to greater ECA might help to control these high levels of anxiety, but anecdotal evidence shows that such activities are proportionally more accessible to students of higher income levels, than those students with lesser resources who are simultaneously more pressured to do well in school, precisely because the stakes are so high. In addition, in India, lower income students often have less leisure time to participate in such activities (Brandolini, 2016) resulting in increasing the gaps between themselves and their more privileged peers.

With the establishment of RTE, private schools were to include one quarter of their students from low income and marginalized categories. The expectation was that with inclusion would come more equalizing relationships across caste and class lines, but there have been challenges both on the academic and non-academic domains of school. Bhatia (2016) undertook a study to explore "the dynamics of social inclusion and exclusion" (p. 14) in adolescent friendships. Her findings illustrate a strong predilection for students to show preferences for students in their own social class when it came to social and public domains with a preference always given to students in "forward" (class brackets at higher income levels than their own) classes. In addition, she found that students from lower caste groups felt more comfortable with their own peers when it came to social and competitive activities in schools, but upper-class students preferred teaming up with lower-class classmates due to the more calculated fact that "peers from backward classes have an added advantage in terms of relaxation of percentages" (Bhatia, 2016, p. 15).

It is within this context that the establishment of the RTE Act was seen as an impetus to balance the private and public school divide. The value of extra-curricular opportunities, especially in more privileged private school environments, sheds light on experiences of marginalization

in such schools. In India, the importance of school celebrations in private schools are a part of the transformation of schools that cater to middle-class aspirations of globalization and internationalization where experiences like annual day performances can promote the shifting education project of India, by:

> Embedding of new activities into its curriculum, participating in educational programmes of global scale…repackaging of old practices and discourses…(where)…the school's Annual Day celebration as a special instance in which the institution gave concrete expression to its educational project in front of families and guests. (Sancho, 2016, p. 479)

The frequent use of guest artists, professional choreographers and musicians and additional artist/teachers has been relatively common in such schools over the past three decades. As more schools seek to showcase their "value" as a space for parents to spend vast amounts of money for an education even in secondary and tertiary cities (Sancho, 2016), these professionals become even more important and spend large amounts of time in the schools.

Methodological Philosophies and Decisions

We have known each other for over twenty years and began our work as co-collaborators in a nonprofit organization founded by Baily to work with marginalized children housed in orphanages in two cities in India. That organization focused on offering extra-curricular opportunities for social, cognitive, behavioral and emotional development for those children. For this chapter, we ground our separate and combined experiences in an iterative process to share, question, recall and reflect, to identify specific experiences in the RTE landscape to identify key moments, as an attempt to present insights into the educational process through our understanding of dissimilar experiences around extra-curricular participation for students of diverse economic backgrounds. If the social imaginary of middle-class schools is predicated on the provision of learning opportunities that go beyond the classroom, these practices shared below might allow for new conversations on the provision of practice-based learning for the whole child, and for all children among teachers and teacher educators.

Sodhi also builds off of her experiences with a team of people who have been involved in schools for the past decade supporting teachers in extra-curricular teaching activities. While this work focused on the theater arts in schools, there are a number of people who are brought into private schools in India to work with students to enhance the extra-curricular offerings. Sodhi and her team worked with students in the RTE era in a wide variety of schools to develop/design/direct school plays, annual day celebrations and other visible extra-curricular opportunities for students, this team has a particularly unique perspective on schools, students and the ways in which the participation of students from varied backgrounds are treated in such schools.

Using vignettes that focus on particular practices of marginalization and inequity faced by students attending schools in that 25% reservation category, this chapter seeks to deconstruct and highlight how teachers and teacher educators might need to be more aware of these situations to enhance their own teaching and learning processes. These experiences center around parental expectations for their children, structural inequities embedded in extra-curricular participation and students' own cognition of inequity.

Vignettes have become increasingly popular in qualitative research across a number of different disciplines over the past fifty years (Bradbury-Jones, Taylor, & Herber, 2014). The appeal of using vignettes has grown due to the ability of the researcher to use them to elicit normative commentary from participants regarding a specified context (Finch, 1987). Studying the beliefs and values of individuals is challenging especially in the social sciences given the multidimensional, interrelated and complex nature of different concepts that inform the issues being studied (Finch, 1987). Vignettes, as brief stories about common situations, can encapsulate the multifaceted influences to elicit listener responses "that reveal values, perceptions, impressions and accepted norms" (Azman & Mahadir, 2017, p. 27). Vignettes allow for the participant's interpretive response to be situationally specific (Finch, 1987), to provide a comfortable social distance between the researcher and the researched (Azman & Mahadir, 2017). The use of vignettes also allows for discussions of sensitive or traumatic material without requiring participants to relive painful experiences (Bradbury-Jones et al., 2014). Vignettes can present challenges through depicted scenarios to be relevant and realistic, seeking participant responses, which rely on the person's willingness to be honest and forthcoming (Azman & Mahadir,

2017) and due to these reasons, we have sought to use vignettes to provide a lens into the issues we hope to raise about RTE and the use of ECA (Azman & Mahadir, 2017; Bradbury-Jones et al., 2014; Finch, 1987; Ganong & Coleman, 2006). The vignettes below are shared in the first person, from the perspective of Sodhi.

Narratives of Experience

The three vignettes shared below address the ways in which teachers advocate for certain students to be selected and supported in ECA programs in part to ensure that parental expectations for their children are met; the inequities of the fee structures of the inclusion of students in the RTE category in school events; and finally, the cognizance of students themselves when they realize they are not deserving of some opportunities.

Vignette 1—Parental Expectations for Their Children

As a part of the procedure for directing a school Annual Day event, I needed to conduct some basic auditions. Since the whole school is supposed to participate, the auditions are meant essentially to cast the children in appropriate roles. The children at this particular event were between the ages of four to six years. We needed to pick children for both the lead roles and some of the supporting roles, while the rest of the children would be participating in the group dances. As an outsourced teacher, I was not familiar with the students in the school, and therefore, I followed my usual process of auditions, looking out for clarity in speech, confidence and a certain look depending on the character. Once the selections were made and we started the rehearsals, I was asked by teachers in the school to change certain characters. The reasons given to me were that these children belong to the EWS category, that it would not make much of a difference to their parents if they were given a decent role or not and that they wouldn't be able to afford the costume anyway. These children were therefore not allowed to participate and on my protest, I was told that these children have not been coming to school at all, and therefore I would need to change the characters, which was a complete lie as the children were in school. From what I gathered, this entire event was meant as a showcase for the school, with no thought given to the children admitted under the RTE Act which was meant to be inclusive.

In this vignette, a private school that had an established relationship with Sodhi to support their extra-curricular theatre program, had invited her to direct the school's annual day performance. Sodhi spent multiple weeks in the school as part of this effort. In working on the development of an annual day performance which is a high profile school event for families and friends, her job to design a high quality show also depended on ensuring that selections were made based on the responses the teachers would have received from the parents and administrators about plum roles and opportunities. As documented in earlier sections of this chapter, the implementation seems to be of the philosophy "include, but differentiate" a variation of the US civil rights era stance of "separate, but equal" (*Brown v. Board of Education*, 1954; *Plessy v. Ferguson*, 1896).

Teachers are stuck in a difficult spot, even if they understand the injustice of the situation. They are aware that school success depends on the support of parents who pay extremely high fees for their children to attend such schools and participate in all activities. Excuses are made for why certain students cannot participate, and the very fact that the reasons change over the course of a conversation, highlights the discomfort that teachers might hold in their request of the ECA teachers about students not coming to school.

In this vignette, it is clear that there are very specific expectations parents have for their children in attending certain private schools. As part of the social milieu and the cultural capital anticipated for students, parents can be driven to ensure how they can optimize opportunities for their children. It becomes complicated for teachers who struggle to maintain boundaries between their job (meeting the needs of the customer), to their vocation (their ability to engage in equitable learning practices for all students). The management of private schools oftentimes can curtail a teacher's ability to go against the market-based principles that are present in terms of maintaining the business of the school. Fee-paying parents are clearly aware they are investing a substantive portion of their monthly budget on *this* education, and it would be expected for them to advocate for their child under such circumstances. The competitive nature of schools and the awareness of the high stakes that can make or break students' future are both factors in what drives parents to demand the best for their students. This is where teachers can play a more equalizing force in schools. What can drive teachers is the capacity to ensure they are looking out for all students, supported by their confidence that if they take the side of the EWS student in such situations,

they will have the reinforcement of their administration if they cannot support the parents. Allowing teachers to be buttressed by their confidence in the vocation of teaching, rather than the business of schools will allow for more equitable opportunities for students.

Vignette 2—Structural Inequities Embedded in Extra-Curricular Participation

Going off-campus for special events and ECA is always challenging with large groups of students. One particular incident has etched itself in my mind. We had to record some of the primary school students for a broadcast and took the students to another location to do the recording. Since the students were not on their own campus, and the recording was taking longer than expected, a mid-day meal was served to them in the recording room at this off-campus location. My team and I, to speed things up, helped served the meal. Not really familiar with the children, we obviously gave all the children plates. That was when a frantic teacher rushed up saying that these certain children were not to be served lunch. As a policy, the children admitted through the RTE quota (25% of the total student strength) were not to be served the school meal. These children were normally expected to bring their lunches from home, but because we were off-campus and had been expected to be back in school by lunchtime, the students did not bring their lunch boxes. Since the other students had paid for their lunches through the school, they were allowed to have the purchased lunches, but the RTE students were told they would have to wait until they got back to school to eat. This put our team in a very uncomfortable position, where we could see there was still enough food to spare as the staff and my team was offered lunch, but there were students who were 9–10 years of age who were expected not to have lunch with their peers. The explanation provided to us was they did not want the children to "get used to the idea" of the school meal.

As with the first vignette that is rooted in the parents' demand as fee paying customers, expecting the best service from the school, this second vignette is also linked to the notion of education as an instrumental outcome of financial incentives. While the schools are spaces of learning and are usually nonprofit institutions, the student fees play a large role in ensuring the financial stability and growth of the school. The loss of a quarter of fee-paying students can significantly affect the plans of a particular school to expand and enhance its options to further attract other top-tier students. While this vignette highlights a one-time

situation during an extra-curricular activity, it is similar to other evidence that illustrates the second-class treatment of EWS students in the private school environment.

Mid-day meals schemes have been present in government schools in some form since 1995 (Pain, 2014) and while there have been frequent complaints of corruption, mismanagement and unsanitary conditions (Bageshree, 2013), the program has been beneficial in bringing and keeping students in school. Currently, students in government-aided schools are provided a midday meal. Students who are enrolled in private schools are not provided a meal. According to an evaluation of the RTE Act, there is a connection between the lack of midday meals and the lower enrollment rates in private schools. According to a review in the state of Madhya Pradesh, the non-availability of mid-day meals kept nearly 80,000 students out of the private school quota and the disconnect between the RTE Act and the Food Security Act has created a situation where students can either get a good education or healthy nutrition, but unfortunately neither at the same time (*Times of India*, 2013).

While each school has a different strategy for making fee-paying students subscribe to a lunch program at school, the fact is that from the experiences of the team, meals for EWS students were frequently not offered or were somehow different from the other students. Such marginalization of students affects both their confidence in participating in schools, ensures a second-class treatment and can hinder the learning process, as every teacher knows, a hungry child does not learn. We share this example recognizing that every school, every teacher and every classmate could have responded in a variety of different ways and does not mean that this would happen in every situation. The concern we raise is that it does happen. The team that was working with the students on the extra-curricular project were faced with a discomforting reality that the school was discriminating against certain students purely on the basis of who has paid for lunch and who has not. This experience created a situation where while the students were off campus, at a relatively relaxed activity, the category of students also became evident to the whole group. The students who paid for lunch were clearly able to identify who did not or could not pay and in turn can lead to forms of social ostracism affecting the larger social/emotional stability for the RTE students.

Vignette 3—Students' Own Perceptions of Inequity

While working on choreography for a school annual day, with grade eight students, we gave them their positions as per their ability and dance skills. One of the children came up to us and asked if we were sure we wanted him in the first line. That was a strange question and when we answered in the affirmative, he looked surprised and quite unsure. He told us then that he would not be allowed eventually and that we should move him back. On questioning, we discovered that because he was a child from the EWS category, in all his years at school, had never been allowed the opportunity to take a position of importance, despite his obvious skills, because it would not matter to his parents and they would probably not come for the show any way. As he expected, his class teacher validated what he said and asked us to change his position. When we went to the management with the situation, we were met with people who very clearly said that it was of no interest to them and that we shouldn't interfere in the ways of the school.

While this has some similarities to the first vignette, what is different here is the awareness of the student himself about his status in the school. The concerns here that affect his own development as a student are grounded in his lack of confidence that he will be supported in the lead role, the recognition that parents are the audience for such efforts, and the overall lack of commitment to the spirit of education from the management. There is evidence to suggest that the lack of access to participation in ECA can determine the decision of the child and family to drop out of the private school (McCabe et al., 2018). While this chapter does not seek to hypothesize that schools might be visibly showing a lack of visible support to encourage students' feelings of marginalization and ostracism as a way to speed up withdrawal, it must be considered that the tensions between the imposition of RTE on private schools has not always been a successful partnership.

The discomfort of teachers and students in the social aspect of education must be more carefully addressed (Mathur, 2017). The ability for students to have a fully successful education that includes all components of school life, including participating in ECA in school is critical but for students to see themselves as separate, not deserving of a place in such activities does nothing to support the development of a more egalitarian society in India. While the burden of creating such a society should not rest in the hands of teachers alone, these experiences highlight the fact that schools might follow the letter of the law—but not the spirit

of the law. Bradley and Conway (2016) show that participation in ECA has beneficial effects on academic learning, self-esteem, confidence and self-efficacy, all of which have positive transferability to classroom learning. In a highly competitive environment, it can be hard for students' talents to emerge in any case, as young children and early adolescents, but to add layers of psychological barriers where the student believes they are not worthy can also strongly impact student learning in other domains.

RECOMMENDATIONS OF TEACHERS AND TEACHER EDUCATORS

This volume is dedicated to supporting the ways in which teacher and teacher educators are able to explore "specific practice-based ways of teaching and specific ways of teaching teachers how to teach in South Asian educational contexts in and through practice" as well as a chance to understand the future trends in the professionalization of teaching and teacher education (Kidwai, 2019, personal communication). We argue in this chapter that with the implementation of the RTE Act, the gap between what teachers see as their own responsibilities in the teaching and learning process, do not always take into account the need to understand the whole child development in schools. The importance of social inclusion, the lack of systematic research around these topics and the overall pressure to focus on curricular responsibilities limit the bandwidth that teachers have to address these issues. The additional knowledge that EWS students in private schools are not often completing their education as they are only funded until age 14, and are expected to be passed through no matter how they score on the yearly exams creates less of an incentive for greater attention from school administrators and teachers. But oftentimes, we do not believe teachers might not even realize the extent of the marginalization in such activities or deeply understand the ways in which such activities can spillover into the classroom, and as such this chapter seeks to present another look, in an effort to empower teachers to use their agency to engage more actively in such spaces. While there is not much that teachers can do to alter aspects of the policy, it is important for teachers to recognize the structures that hinder learning for students, even if they consider the student fortunate enough to be attending the private school.

The confluence of the RTE Act with its mandate to ensure that 25% of EWS students are enrolled in private schools should not end with the establishment of a policy at the national level and leave the school to

school implementation up to the practices of local school leaders (Baily, 2012). The national level policy requires local level buy-in and the implementation of the policy is varied due to the fact that the interpretation of the goals and outcomes of the policy are relatively vague and nebulous. While there are examples of schools that do ensure that equitable practices are present for all students across all income brackets, this is not yet the norm. For instance, one school has provided a sliding scale for mid-day meals, so wealthier students pay more and the lower income or EWS students do not pay anything at all. Another example is how a school, which did not have a uniform policy, after the introduction of the RTE Act, introduced uniforms to ensure that all the students were dressed alike with the uniforms provided free of cost to the children in the EWS category. Unfortunately, some schools keep EWS parents in separate spaces when they attend school events, or do not make alternate arrangements for parent/teacher meetings where EWS parents might have the flexibility to attend. Some schools have seen these as deeply troubling and have made adjustments to ensure a respectful environment for all parents. In a society where families still only allow members of the help to only sit on the floor, and do not allow bathroom usage by people considered working or lower class, the need for students to engage in a fully equitable education starts with ensuring that opportunities for all students is fair and based on talent and skills rather than parental expectations, do not create undue divisions, and support the cognitive and emotional development of students. While there is a need to ensure that there are equitable opportunities in all aspects of education, in this chapter we try to lay a foundation to encourage teachers and teacher educators to support equity in both the classroom and in ECA activities, due to the clear effect participation in ECA has in the larger development of the student. In this regard, we find that raising these points, from the purview of these non-traditional actors in schools, allows for teachers and teacher educators to better understand how to balance progress in the classroom with experiences without. Based on this chapter, we would recommend three steps to be taken to promote greater awareness of how ECA activities are understood, implemented and evaluated in schools.

1. In terms of deeper understanding, we would strongly recommend that teacher educators think about how to include key aspects of theory and research on ECA in schools as part of a module of a course, or as a stand-alone course, to help teacher candidates

understand that such activities are directly connected to academic success, but also promote whole child development. Issues around equity and access in such endeavors must also be shared toward supporting both the individual student as well as allowing for some structural change around equity in access and opportunity in such activities.

2. In terms of better implementation, we would strongly recommend that administrators reflect more carefully on their role as educational leaders to promote policies in schools to ensure blind selection of students for roles in events, innovative ways to address gaps in funding to allow for greater participation in all aspects of school life including meals and school trips. Administrators can speak to school boards, or trustees, to be a voice to ask for a strong defense for teachers who promote the quality of ECA by ensuring that opportunities are not limited to influential parents.

3. In terms of better evaluation, we would strongly recommend that school stakeholders (trustees, administrators, teachers, parents and students) conduct frequent equity audits (View et al., 2016), where stakeholders can "examine the range of potential inequities within a school…(include) disaggregated data on student achievement, discipline, extracurricular participation, and staffing" (p. 383), through the collection of data, analysis of why it exists and implement solutions to address those concerns. Such audits create an environment where the community works together to ensure a more positive and supportive environment for all members of the community.

These recommendations are not onerous, nor are they untenable for creative educators to explore. In an environment that is shifting toward a more student-centered process:

The imperative now is to improve teachers' understanding and practices by a further shift towards students, their backgrounds, experiences, and current and potential levels of learning, and a more critical understanding of how the curriculum is aligned or not to students Teacher education that conceptualizes teaching and learning as essentially a communicative and social process, needing benign and encouraging teachers who know their own students' relationship to the curriculum, may be a starting point. (Westbrook et al., 2013, p. 64)

We argue in this chapter that teachers cannot be solely responsible for what happens in the content areas they teach but must be aware of how the school environment and opportunities welcome all students into its culture.

Conclusion

UNICEF (n.d.) highlights the critical role teacher and teacher educators play in the success of RTE. Schools are to be seen as safe and inclusive spaces, "where all children from diverse backgrounds are welcomed, treated kindly, and encouraged to actively participate in learning through child-centred activities" (n.p.). In addition, teachers are seen as change agents with a goal to ensure "competence as professionals able to reflect on and improve their own practice" (n.p.), and finally:

> strengthening state-level teacher education planning and systems, which will be critical to ensuring improved teacher preparation and on-the-job support. Recognizing that teachers are catalysts for social change, they will be central to ensuring an inclusive and participatory teaching and learning process as well as classrooms free of trauma and violence. (n.d.)

Being a catalyst for social change requires support, preparation, resources and time for reflective practice. Teachers are supporting students with a wide variety of challenges, but without a clear understanding how the social and emotional development of children is affected by their participation in all domains of school can hinder their ability to be effective "agents of change". There are significant problems that have to be addressed through the implementation of RTE, and while the presence of students in ECA might be seen as less important, our chapter argues that this is one space where there is local level efforts that can play a part in changing the quality of life for students in a country where the expectations for education supersede the reality of access and opportunity. Berger (2004) argues that teachers need company at the edge in order to make significant changes to their practice, especially when they seek to address issues of injustice and inequity. Allowing non-school based actors to help teachers have support and company at the edge to ensure the whole child is allowed to succeed in light of an unfulfilled policy, can only work to help some students open up their parachutes, to reach safe ground.

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Teacher Preparation for Environmental Education and Education for Sustainable Development in India

Preeti R. Kanaujia and Rajeswari N. Gorana

Introduction

Teachers and textbooks are the two most entrenched and visible aspects of school education in India. A teacher's role in India, as everywhere globally, is recognized as being vital in ordering learning conditions and guiding or inspiring students' thinking and action (Evans & Popova, 2015; Kumar, 1986; MHRD, 1986; Ramachandran, Pal, Jain, Shekar, & Sharma, 2006). Education systems to be successful in their social goals and endeavours—for example, achieving literacy, universalization of

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elementary education, educational quality and such—look at teachers. In fact, this can be gauged from the many studies that persistently examined (and blamed) teachers—their motivation and accountability—and attributed failures of education to this single aspect. From whichever vantage point we see, teachers are the real frontline in education (Premji, 2018).

Environmental education (EE) in the country has a long history and it further obtained formal recognition after being directed by the highest court of the land—the Supreme Court (SC). It simply recommended preparation of EE syllabus in way of making EE compulsory. Its directions did not acknowledge the massiveness and complexity of the Indian education system and other challenges of EE for example, the content, learning and teaching methodologies, the modalities of introducing it and the capacity building among teacher educators (Ravindranath, 2007). Notable among them being the dilemma whether EE is a "discipline or a composite of many disciplines?" (Masoom, 2012). Subjects taught in the schools are based on well-established disciplines and teacher preparation (pre-service and in-service), textbooks, evaluation and examination and the continuity in tertiary education.

Most of the EE programmes—of the government and NGOs—before and after the Supreme Court's interventions were mediated through teachers. In-service capacity building programmes introduced teaching-learning methodologies and provided supplementary resources for building capacities. Teacher education institutions and EE institutions developed curriculum and educational resource material to prepare teachers.

This paper begins with understanding the massiveness of the Indian Education System, the way teacher preparation is organized, and provides the policy context of EE, and the perfunctory responses of the education system even after it was made compulsory through judicial intervention. EE has a long history and many programmes in the formal school education found government support. The vast network of non-governmental organizations (NGOs) ran finely targeted EE programmes where the teachers' role was critical, and they were supported through trainings and teaching-learning material. This Indian experience has a long legacy of non-formal approach adopted by the environment and education ministries at the centre, leading national and local NGOs, and judicial directions, all of which had a very positive effect on EE, and education in general but came with some weaknesses. With eight examples, we show how non-state actors like NGOs built implementation models that espouse the spirit of Tbilisi declaration of 1977 (Intergovernmental Conference on EE). There is much to

learn from these Indian experiences. This experience says that EE needs to be delivered emphatically through both curricular and co-curricular (non-formal) approaches. The momentum generated through the EE programmes can be sustained by teacher preparation and capacity building. The vast EE experiences have to be melded into coherent strategies to mainstream environmental education in the country, including teacher preparation.

Indian Education System and Teacher Preparation

India's school education system is massive and operates through 42 school education boards. In 2009, the Eighth All India School Education Survey conducted by the National Council of Educational Research and Training (NCERT), mentioned that there are 1.3 million schools (recognized primary, upper primary, secondary and higher secondary schools) spread across 600,000 villages and 5200 towns and urban areas. Furthermore, there are over 5,876,000 teachers—including para teachers that number increases to 6,747,466—imparting education to more than 220 million pupils in the country. The number has been increasing at a fast pace and so do the challenges. For example, National Council for Teacher Education (NCTE, 2017) reports that:

> There are over 10 million teachers in India; including teacher educators in teacher education institutes (TEIs), student teachers in TEIs, and teachers in schools. To continuously support and upgrade skills of such a big number of teachers become challenge as teacher training in physical locations on fixed days cannot cover all the teachers. (p. 6)

Preparation of teachers—both pre-service and in-service—is then a critical requirement for the entire effort of education. The National University of Educational Planning Administration (NUEPA, 2014) mentions that in 1987, the Centrally-Sponsored Scheme (CSS) of Restructuring and Reorganization of Teacher Education was initiated pursuant to the formulation of the National Policy on Education in 1986. Acknowledging the need for a decentralized system for the professional preparation of teachers, District Institutes of Education and Training (DIETs), Colleges of Teacher Education (CTEs) and Institutes of Advanced Study in Education (IASEs) were established. The scheme was revised to fulfil the statutory obligations with regard to teacher preparation and continuing professional development of teachers under

the Right of Children to Free and Compulsory Education Act (RTE Act, 2009, p. 11).

Teacher training programmes strengthen teacher capabilities in maths, science and social studies. The programmes also offer new pedagogical approaches for handling multi-grade classrooms, inclusive education and child-centred classroom transactions (NUEPA, 2014). The mandatory periodic in-service teacher training as organized by the NCTE is up to 20 days in a year, 30 days of induction training for newly recruited teachers, and a two-year training for teachers who do not meet professional qualification. This constitutes an important component of the quality improvement initiative. However, to continuously support and upgrade skills of such a big number of teachers become challenging. As per one government survey (NCTE, 2017) on teacher's training of year 2015–2016 done under District Information System for Education (DISE) shows that "only 15% of government school teachers received training" (p. 10).

The renowned educationist Prof. Krishna Kumar in his interview (Surya, 2008) in the newspaper "The Hindu" explains that …"the teacher's responsibilities have greatly increased. Society does not recognise the contribution of teachers …Nor does the state. The profession is in a deep crisis today and in certain parts of the country it is in a shamble, with unqualified, part-time para-teachers serving in place of professionally committed teachers".

It is under such circumstances environmental education had to find its space and progress in the Indian school system. How was teacher preparation–both at the pre-service and in-service stages—supported through various means and actors to take EE to the classroom?

Environmental Education in India: The Policy Context

The National Policy of Education (NPE) (1986) had acknowledged the importance of creating environmental consciousness across all age groups, by beginning in schools and colleges such that it is "integrated in the entire education process" (MHRD, 1986, Para 8.15).

To take forward 1986 policy, NCERT recognized the need of teachers support material and mass scale teacher's training on EE. The Centre for Environment Education, an NGO recognized as centre of excellence in EE by MoEF was invited to develop material and conduct national

level training programmes. Over thirteen thousand teachers were given a new orientation. Teachers' manuals titled "Joy of Learning" based on hands-on active learning approach for EE were also developed (Sarabhai & Chhokar, n.d., p. 2).

Of all adjectival educations (peace education, population education, health education, water and sanitation education…), EE received formal recognition over two decades ago in India. The recognition is unique in being that it was directed by the highest court of the land—the Supreme Court in 1991. Displeased with the noncompliance of first directive, the court gave another Directive in 2003. This time with explicit instructions, asking State governments and education boards to make "education on environment" compulsory at all levels of education (Environmental Law Alliance Worldwide, n.d., Para 4).

On 13 July 2004, the Court directed NCERT (appointed by the court as the nodal agency to supervise the implementation of the court order) to prepare the syllabus for Class I to XII to be adopted by every State (Pandya, 2005). There is a marked difference in the response to the 1986 NPE (which led to massive teacher trainings) and the formalization of EE by the Supreme Court which resulted only in preparing EE syllabus. The directives discounted the challenges and needs of the massive and complex organization of Indian education system, and at best can be seen as a non-vigorous off-the-shelf solution introduced at the bottom end of the system, as if preparing EE syllabus was all that was sufficient for bringing EE to schools.

While the judicial intervention is a watershed moment in Environmental Education in India, the mainstreaming process remained perfunctory. The States were asked to submit in writing how they were implementing EE, most of the States simply dusted their hands-off EE by stating that they had already infused EE into the curriculum. Much before the directives of the Supreme Court, several initiatives to impart environmental education were afoot with support from the central and State governments, and NGOs and this long tradition of EE in the country has to be acknowledged. Gorana and Kanaujia (2016) state that through the non-formal route, EE and ESD found a place in the schools if not in the classrooms (through the formal curriculum) (p. 203). NGOs, UN Agencies, individuals, acknowledged and two central ministries, the Ministry of Human Resource Development (MHRD) and the Ministry of Environment, Forest and Climate Change (earlier Ministry of Environment and Forests) invested in Environmental Education, mostly through non-formal means.

MHRD is in-charge of planning, implementation and monitoring of education in the country supported a small grant scheme called the Environmental Orientation to School Education (EOSE) towards building awareness through local NGOs that developed wide array of activities and learning materials on local environmental issues in local languages (Ravindranath, 2016). Realizing the importance of an environmentally literate society, the MoEFCC continues (even after EE became compulsory) to support large and ambitious EE programmes, for example, the National Environment Awareness Campaign (NEAC) and the National Green Corps (NGC) for students and general public.

NGOs played an active role in bringing EE to the formal school education through state and/or non-state funding. Governments at the Centre and State and NGOs continue to independently and also synergistically work for EE. As Ravindranath (2016) explains, "One of the strengths of India's environmental education movements is the vast network of NGOs. Over 10,000 NGOs and community-based institutions at national, regional and state levels are actively engaged in improving awareness on environment and development issues" (p. 100).

EE activities continue to be carried out through curricular, co-curricular and extra-curricular approaches even today and the reasons for this are worth exploring. The long legacy of non-formal implementation had a very positive effect on EE and education in general but also revealed some weaknesses, including:

1. The scope of education broadened, touching on and integrating environment, social and economic concerns; included themes of biodiversity and greening, waste management, energy, water, air and climate change, environmental degradation and pollution; including culture, peace and global citizenship find place in the curriculum (NCERT, 2005a; Pande, 2001; Pandya, 2016; Sarabhai et al., 2002). EE easily assimilated with the curriculum and as Palmer (2002) notes, the very eclectic nature of EE content became its greatest strength—it "fits everywhere" (p. 136). Perhaps, this was the reason why many States submitted to the Supreme Court in writing that they had already infused EE into the curriculum. The greatest strength of EE became its weakest point.

2. EE in India is essentially circumscribed by the pedagogical triangle: teaching materials (content), students and teachers, even though event-based initiatives like planting trees, cleanliness drives in

natural areas and drawing and painting competitions remain popular. A range of teaching methods and active learning approaches of EE entered into the classroom practice (Ravindranath, 2007). Teacher and learner support material on various EE themes was developed in many languages (Sarabhai, Raghunathan, & Kandula, 1998). However, there are no notable initiatives in the teacher preparation space.

3. Teachers played a pivotal role in most of the government and NGO programmes (Chhokar & Chandrasekharan, 2006). Teacher trainings were a significant part of NGO programmes but teacher preparation for EE in the formal system continues to remain weak. Palmer (2002) rightly observed that "EE becomes equated with the whole education" (p. 277) losing its identity, underplaying the need for sound teacher preparation. Ravindranath (2012) mentioned that there is no separate training module or course for training in-service teachers in transacting EVS.

In 2005, the declaration of United Nations Decade of Education for Sustainable Development (UNDESD) brought further endorsement to the fact that education is a key driver of change towards sustainability. NCERT (2006) emphasizes this declaration by stating, "Truly meaningful EE is, then, a crucial activity that must lead the way for a paradigm shift in education to promote the pursuit of sustainable development" (p. 5). The authors bring to the reader's attention that there exists a view in India that education for sustainable development (ESD) is an extension of EE which is prevalent among practitioners, educators and government officials. The terms EE and ESD are either used interchangeably or together, which the authors continue to do so here in this chapter. Environmental Education is the official term and it also refers to ESD in spirit, if not in letter (Pandya, 2016).

EE and ESD in Teacher Education

EE became compulsory in India and globally ESD came to be seen as a driver for change to achieve sustainability at the beginning of the millennium. UNESCO (2002) reported that teachers are the key to learning and the quality of education. The UNESCO-UNEP International Environmental Education Programme once described the preparation of teachers as "the priority of priorities" (p. 44). The World Commission

on Environment and Development in its report—*Our Common Future*—described Sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 9). The essence of sustainable development is the empowerment of all people, according to the principles of equity and social justice, and that a key to such empowerment is action-oriented education.

In India, National Curriculum Framework (NCF) 2005 reflected this global thinking when it described quality education as being inclusive of a concern for quality of life in all its dimensions. It stressed that a concern for peace, protection of the environment and a predisposition towards social change must be viewed "as core components of quality and not merely as value premises" (NCERT, 2005b, p. 9).

In 2004, NCERT at the behest of MHRD set up twenty-one Focus Groups to review the *National Curriculum Framework for School Education* (NCFSE) 2000. The Focus Group, Habitat and Learning underscores the significance of teacher preparation as recommended it as one of the 6 major strategies: (1) Curricula revision; (2) Materials development; (3) Conventional media; (4) Taking advantage of Information and Communication Technology (ICT); (5) Teacher preparation; and (6) Evaluation system.

Ravindranath (2012) stated that teacher preparation is the key to producing environmentally literate students, "If teachers (pre-service and in-service) do not possess the necessary knowledge, understanding, skills or commitment to environmentalize and transact the curriculum, it is very unlikely that they will be able to produce environmentally literate students" (p. 4). The NCTE developed a curriculum framework for Environmental Education for teacher preparation. While the goals of EE belong to the realm of educational achievement, the means to achieve them need interventions at the education system level—that brings us to the question of teacher preparation, be it initial or in-service. Absence of noteworthy initiatives as evident here, often obscure, and piecemeal measures for teacher preparation, point to the gap in policy and practice.

Teachers' Role in EE and ESD Programmes

A number of EE and ESD programmes, projects and initiatives contributed to learning that accrues by engaging with environment and development themes through formal or non-formal approaches carried

out either in the school time and space (curricular) or outside. Teachers played a key role and they were supported through training and teacher support material. They came to understand a variety of environmental concepts, concerns, issues and efforts; learn methods, approaches to teach about environment and development in the classroom, and facilitate environmental actions. This part of the chapter provides some finely targeted EE and ESD examples conceived and supported by the Governments—central and state, Education and Environment departments, NGOs—national and local, bi- and multilateral organizations, UN organizations and Corporate Social Responsibility activities. The examples are illustrative of EE and ESD initiatives that could provide learnings and pathways so that teacher preparation can be designed through these causal mechanisms.

Example 1—Project Environment Education in School System (EESS)

In 1998, MoEFCC (then MoEF) developed a discussion paper *Revitalization of EE in schools (REES)* and presented it at a meeting of State Education Ministers. It laid the foundation for one of the most comprehensive efforts to mainstream EE. Environmental Education in the School System (EESS) was conceived and implemented with World Bank support. One of the objectives of the project was training teachers and teacher educators in EE. The others were strengthening the integration of environmental content into the school curriculum; creating a separate time and space in the school calendar for teaching environment-related concepts as an integrated subject, and using non-formal methods through the involvement of NGOs.

Bhartiya Vidyapeeth Institute for Environmental Education & Research (BVIEER) took up a nationwide survey to assess the extent of delivery of EE in the classrooms and analysed textbooks from class I to XII across all the States in the first phase. A national consultation on EE was organized during this phase, which was of the view that instead of teaching Environment as a separate subject, space/forum should be created within the school system for integrating and infusing environmental concept in various subjects. Based on the analyses of the textbooks, phase II, "greening the curriculum" was implemented as a pilot in eight States namely Andhra Pradesh, Assam, Goa, J&K, Maharashtra, Orissa,

Punjab, and Uttaranchal. One hundred schools in each of these States were selected for pilot implementation.

Textbooks of Science, Social Studies and language of class VI to VIII in the selected project States were rewritten by infusing environmental concepts. The modified textbooks were introduced in the project schools during the academic terms 2002–2003 and 2003–2004. State Education Departments were involved in the orientation and capacity building programmes for teachers, teacher educators, educational administrators and other stakeholders in State level teacher trainings.

These trainings built capacities of school teachers in using innovative methodologies of learning and teaching. An EE module for District Institute for Education and Training (DIET) was developed in English and seven Indian languages for teacher educators (Ravindranath, 2007). Teachers training institutions conducted EE focused teacher trainings. This exercise involved development of other education material like teachers' handbooks/guides/ manual, classroom display materials, etc. The project went into phase III—which coincided with the SC Ruling making EE compulsory–where seven new States viz. Chhattisgarh, Himachal Pradesh, Karnataka, Kerala, Sikkim, Tamil Nadu and Tripura were included (MoEF, 2005).

This entire effort was anchored by the Environment Ministry at the centre and Education ministries in the State. NGOs like BVIEER and CEE played a key role in dynamically connecting teacher, student and content in the pursuit of EE.

Example 2—National Green Corps (NGC) Programme

NGC, an Eco Club programme of MoEFCC for building a cadre of young children (students of Class VI–X) for promoting core competencies such as critical and systemic thinking, collaborative decision-making for working towards environmental conservation and sustainable development. It is a non-formal EE programme which is not directly linked to curriculum. One designated teacher at the school coordinates the Eco Club activities.

Launched in 2001, the programme reached out to over 100,000 schools across country in the first decade and is implemented through partnership between the MoEF, State Government agencies and NGOs working in the field of Environmental Education. The in-charge teacher's capacities are built through annual trainings to lead his/her students

in undertaking locale-specific hands-on activities, projects, field studies, etc. The programme takes up a theme every year and teacher support material and trainings are offered. For example, in the year 2009, a module on ESD was developed for State level master trainers to build capacities for examining environmental issues from an economic and social perspective.

It is a model that stresses on students taking up active roles to understand and solve environmental challenges at the school or community level with the teacher becoming a facilitator rather than imparting knowledge in the traditional sense. The programme allowed newer and locally relevant themes to be taken up as a learning activity through the club. Pandya and Joshi (2009) recorded that the programme reaches out to over 3–5 million Eco Club students. This non-formal effort has evolved into a well-recognized programme in India.

Example 3—Project EE Resource Books for Pre-service Teacher Educators

It is critical that EE and ESD are promoted and nurtured in all sectors of education, including pre-service training, so that the basic aims of environmental education are realized. This requires taking necessary steps like preparing the curriculum and teacher support material.

The NCTE, the statutory body responsible for the teacher education developed a curriculum framework in EE for various levels of teacher preparation. As part of these efforts, the national NGO, CEE prepared "Environment Education - Resource Books" for teacher educators for training teacher trainees understanding EE and ESD, environmental issues and concerns, concept of sustainability, and skills to effectively communicate and methodologies of teaching and learning (NCTE, 2005).

Example 4—The Green Teacher Open and Distance Learning Course

The traditional training delivery for in-service teachers is ridden with many inherent challenges—the constraints of time and space, flexibility, costs and reach (Jain & Menon, 2007). Access to continuous professional development for imparting EE is critical, "an effective professional development pathway for teachers must also incorporate access to

continual training which focuses on learning activities pertinent to the classroom" (OECD, 2011, p. 174).

Commonwealth of Learning (COL) located in Vancouver, Canada partnered with CEE, known for prototyping new and innovative EE programmes for developing the Green Teacher Course in 2002, much before online learning was quite common. The Open and distance learning (ODL) was a promising delivery model to scale up trainings and reach a wider audience. ODL experts trained environmental educators how face-to-face trainings could be adapted for flexible self-learning material based on the principles of adult learning and educational psychology. ODL's affordances freed the learner and the facilitator from the constraints of time and space made learning flexible and learner-driven rather than trainer-driven.

This blended learning Course with short duration face-to-face orientation and trainings is interspersed with learning and project work. The course has four modules—Module 1: Basics of Ecology and Life Support Systems; Module 2: Understanding Sustainable Development; Module 3: Environmental Education in Schools; Module 4: Resources and Opportunities for EE (COL, 2005, Para 1). The Diploma course is run through study centres based in six regions of the country. Over 500 teachers, teacher educators and education professionals have taken this course.

Example 5—Paryavaran Mitra

In 2007 by the time the Nobel Peace Prize was awarded jointly to Intergovernmental Panel on Climate Change (IPCC) and Al Gore "for their efforts to build up and disseminate greater knowledge about man-made climate change", it was a well understood environmental challenge. However, climate change was yet to find place in school textbooks. Fully aware that it may take a long time before climate change becomes part of the textbooks, environmental NGOs developed programmes, materials and publications. Paryavaran Mitra (Friends of Environment), a school programme designed and implemented by CEE which was supported by MoEFCC and Arcelor Mittal, a business group. This programme promoting ESD was initiated "to create settings in which students can make their own experiences, can try things, organise things for themselves and have to cope with challenges (learning by doing)" (Rieckmann, 2011, p. 8).

ESD is a process-oriented approach and can strengthen education by giving importance to learners and the context. A critique by the

educational stakeholders (Leder, 2018) of the formal education system states that there is not enough time and resources to include ESD in the lessons. Extra-curricular projects are seen as the only opportunity to implement pro-environmental activities in school. For example, in one of the districts in the State of Maharashtra, students carried out water testing in fluoride affected areas.

In the Paryavaran Mitra programme, teachers implemented at least three EE activities (from the themes Water and Sanitation, Biodiversity and Greening, Energy, Waste Management and Culture) in the classroom by integrating them in one of the school subjects and facilitated club members in implementing a project. The programme was operationalized through teachers. More than 25,000 teachers were trained in project-based learning approaches and hands-on learning methods.

Example 6—Earthian by WIPRO Foundation

Water access and distribution, its pollution, threats to biodiversity, habitat destruction, etc., are some key issues which are intricately linked to sustainability. MHRD reports (2009) that sustainability education requires skills, that would enable teachers to engage students in critical thinking and hands-on learning exercises. In year 2011, a nationwide initiative "Earthian" was launched to deepen sustainability education within schools and colleges by Wipro Foundation, Corporate Social Responsibility (CSR) wing of WIPRO Limited. (CSR is a concept whereby companies voluntarily contribute to a better society and a cleaner environment, by integrating social and environmental concerns.) Earthian is implemented through NGOs that work in close coordination with schools.

Teachers are trained and supported with resource material to work with teams of five students each to conduct a set of activities in water and biodiversity in their local context and explore sustainability linkages. The Business Wire (2019) reports that over 5000 schools and colleges, 130,000 students and 13,000 teachers from across India take active participation in the programme. Reports from schools are evaluated annually and 10 winners are felicitated to recognize excellence in sustainability education.

Example 7—River Dolphin Conservation Education

One of the enduring examples of EE in the country is species conservation education on the Asian Elephant, Sea Turtles, Snow Leopard, Hoolock Gibbon, One-horned Rhino, Tiger, etc.

An EE programme based on the species instils a sense of place and interconnectedness, knowledge and appreciation for the species and its ecosystems, essential for building stewardship. In the year 2009, the endangered freshwater dolphin—the Ganges river dolphin—was declared the National Aquatic Animal. More than 1000 teachers were trained to introduce the EE dolphin programme in schools along river Ganga and its tributaries in the States of Uttar Pradesh and Bihar. This initiative serves an example of central ministries (related to Environment and Water) and NGOs (led by CEE with local NGO partners) working together for Environmental Education (CEE, 2017).

Example 8—Teachers' Training on Climate Change

The two main challenges in dealing with climate change education are non-availability of material and appropriate pedagogical approaches to support teachers in communicating about climate change. In 2017, the State Knowledge Management Centre on Climate Change (SKMCCC) and Madhya Pradesh Clean Development Agency (MPCDMA) under the Department of Environment with support of the Department of School Education (DSE) organized a massive training programme for school teachers serving in government schools in 51 districts of the State. The objective of the training was to enhance awareness and technical knowledge on climate change (Science of climate change, causes and impacts of climate change and methods of climate change mitigation and adaptation) in schools. This programme filled the existing gap with respect to climate change in school communities and built confidence of teachers to facilitate climate change education at individual level (MPCDMA, 2017).

Conclusion

It is worth lauding the efforts of the various actors to mainstream EE in the country and the following have to be duly credited:

1. The judiciary for providing directives that are binding—even though the directions merely translated into a perfunctory response, devoid of systemic changes required for its satisfactory implementation.

2. The collaborative efforts between NGOs and ministries and government departments resulted in some of the best EE programmes and initiatives—establishing the path dependencies for realizing the objectives of EE.

The causal mechanisms and path dependencies that underlie successful EE projects and programmes in spite of the stickiness of formal institutions and inertia in the massive education system have to be closely studied. The long experience of the various stakeholders in implementing finely targeted EE programmes and projects should be harnessed in both designing and implementing systemic level interventions to mainstream EE efforts in letter and spirit.

Indian experience says that EE needs to be delivered emphatically through both curricular and co-curricular (non-formal) approaches and this could decouple the need for EE to be a discipline-based subject and in contextualizing learning and action. This was proclaimed in world's first intergovernmental conference on environmental education, "utilize diverse learning environments and a broad array of educational approaches to teaching, learning about and from the environment with due stress on practical activities and first-hand experience" (Sarabhai, Pandya, & Namagiri, 2007, p. 35).

Rapid expansion of the teaching workforce which inevitably leads to the recruitment of less qualified teachers, innovative solutions like ODL and tech-mediated learning have to be sufficiently deployed for capacity building. The momentum generated through some of the EE programmes in the country can be sustained by teacher preparation and capacity building. The vast EE experiences have to be melded into coherent strategies to mainstream environmental education in the country.

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Conclusion

Pastoral Care Teaching: A Case Story Vignette

*Ashwathi Muraleedharan, Erik Jon Byker
and Matthew A. Witenstein*

INTRODUCTION

To this point, much of this volume has provided the macro view about teacher education in South Asia. We have surveyed teacher education programs in Bangladesh, India, the Maldives, Pakistan, and Sri Lanka. The volume has explored a number of themes related to teacher education including: active learning, continuous professional development (CPD), outcome-based education (OBE), gender gap, inclusive education, public versus private teacher education, technology-enabled reflective practice, and transformative problem-posing. One of the objectives of our *South Asia Education Policy, Research and Practice* book series

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is to capture how macro level themes are situated within South Asian context. Yet, another objective of our book series is to personify the themes at a microlevel. The purpose of this penultimate chapter of this volume is to capture the voice of a practitioner in the region, Ashwathi Muraleedharan.

Ashwathi lives in Delhi and has a background in social work and special education. In her case story vignette, she argues for an effective and affective teacher education. Ashwathi employs the metaphor of "pastoral care" to examine and explain how teaching is equal parts engagement, nurturing, and the provocation of guiding learners in meeting challenging learning goals. Please enjoy Ashwathi's story:

A Case Story by Ashwathi Muraleedharan

Coming from a background where education has always been considered an utmost priority, I wanted to get into teaching at some point in life. Besides being an organic development, it was a decision that has shaped my worldview about teaching and teaching students who need me more than I need them. Having done a Masters in Social Work and choosing to do Social Work in Education as one of my electives, it was a humongous task to maintain the delicate balance between being a social worker and a teacher at the same time. There are quite a few upsides to the combination, the most important one being that training in social work gave me a window to understand my kids with special educational needs on a much more humane level. For those reasons, I felt attuned to the concept of pastoral care.

Pastoral Care: Teaching Effectively and Affectively

On one of the professional development days in school, our principal introduced the term "*pastoral care*" to us. And upon reading, I found that along with providing effective education, it is important to give an affective education as well. The concept involves an active engagement from the teacher and leans heavily toward the idea of nurturing and creating a safe space for the students to grow into confident and emotionally sound individuals. It also identifies the need for setting feasible yet challenging goals for them, which in no way undermines their capabilities as an individual or a student.

As a middle school Hindi teacher in an international school in Mumbai, teaching kids with a poor foundation in the language was a difficult task. After analyzing the records, I found that there were a significant number of students who displayed a below average performance in the subject and most turned out to be students with special educational needs, mostly with specific learning disabilities. Being someone with a stuttering disorder that took years of therapy, and self-monitoring (and embarrassing communication-related anecdotes that used to make me feel worthless on occasions), I engendered a strong connection with these students. So, I handpicked the kids for my Hindi group and sensed that I owed it to them for their academic and emotional achievements.

Plan of Action: Involving Stakeholders and Inclusive Lesson Planning

I sat with the concerned parents and my colleagues and came up with a differentiated unit plan-cum-assessment pattern for the kids. I struggled to convince fellow teachers about the importance of such a plan and the discussions often resulted in statements like "*itna mehnat kyu karr rahi ho?*" (Why do you want to put so much effort?) or "*waise bhi inn baccho ko kuch samajh nahi aane wala*" (anyway, these kids will not understand anything). But after some serious altercations and my stubborn nature when it relates to inclusive practices, my senior Hindi teachers caved in and gave me the liberty to create plans and assess them differently from the norm. I performed scaffolded and differentiated lesson planning; level-wise rubric-scoring for assessments; and provided detailed feedback for each of my students at the end of each activity and test. A challenge that loomed over such a system was my kids being treated like "students with special needs" by other students. Overcoming this hurdle can be quite stressful, especially if you are dealing with hormonal teenagers! So, I decided to cut down my hour-long lunchtime and spend half an hour everyday with my students during which I performed remedial teaching and bonded with them. I attempted to troubleshoot any concerns they had regarding academics, social adaptability, and emotional adjustments. This informal time was critical for me to know their progress and their needs inside and outside the classroom.

To boost the morale of my students, I curated activities supported by Howard Gardner's (2011) Multiple Intelligence Theory. After

identifying the forte and aptitudes of all of my students, we began doing Hindi *naatak* (plays), read aloud sessions, vine videos on social issues—which the kids loved—and creating Hindi board games. Additionally, the students of other classes were asked to join and play. It also set my kids apart from the rest as it focused on extracting the maximum potential of each and every student in my group. As a result, I received fewer behavioral concerns as the kids were continuously engaged in meaningful activities and the academic results of my group were marginally higher than what it was earlier. Luckily for me, my fellow teachers also saw the effort that I was making and proactively helped me in creating a differentiated Hindi curriculum that now serves as our guiding manual for inclusive lesson planning.

Arun's story. Educators often grapple with whether they should be nurturers and be compassionate or maintain a stoic facade so that kids take them seriously. In the case of Arun, I realized the importance of teachers being caregivers when he walked into my Grade 6 classroom on August 8, 2016. According to his previous teachers, Arun was an aggressive, troubled kid with a tendency to bully others verbally and physically. The teachers and principal had a tough time handling the frequent complaints against him. He was considered to be the "kid who must be carefully dealt with". After the transition to middle school, the first few days with Arun were breezy as students tend to have a generally quiet demeanor. Needless to say, I found him to be a charming, docile boy with no troubling attributes. Problems began once he settled in and I began receiving calls with complaints about him for having poked someone in the face with a fork during lunch break, getting into fistfights with his peers, having difficulty in reading and writing, and distracting the class after a task had been assigned. The list grew on and on.

In a society where people find it easier to detach themselves from the problems around them, I wanted to involve myself instead. After speaking to his parents, I realized I might be working with him the wrong way. Perhaps I was not putting myself in his shoes? And so that is what I did. Arun did not misbehave because he was a bad student. He engaged in challenging ways because we failed to observe that he struggled with reading. He was struggling with dyslexia and misbehaved with his peers because he perceived his abilities as inadequate. Arun distracted the class because the instruction processing speed was not differentiated for his understanding, and that is when I changed my approach toward him. I started observing that he was gifted at construction so I requested him

to build a makeshift library for our classroom. It was bittersweet to observe his confused expression which skipped from shock to passive acceptance, finally resting at silent pride. He spammed my WhatsApp with library designs that evening. The following evenings were all about updates on how the construction could be executed. That boy was thorough!

During the project which lasted almost two weeks, the teachers viewed a different side of him. They were no longer annoyed with him! On the contrary, they were pleased to see his proactivity in class and demonstrated behavioral improvement. I took extra classes with him during my lunch break where we engaged in scaffolded reading and made our way toward higher-order critical thinking tasks. I started acknowledging his meaningful achievements, exclaiming shout-outs in the online class forum, sending positive emails to his parents, etc. That is when I noticed he appreciated my work. Arun did not need me to tell him he was misbehaving. He needed me to give him specific feedback on tasks performed well and ones he could do well so that he could be productive. I ended up making him the set design head for my class theater production for which he practically designed and constructed every little piece of furniture himself and taught his small group how to aesthetically place each prop on the stage. Interestingly, his results in the fourth quarter showed better effort grades and fairly solid academic grades. Today, Arun is in Grade 9. I do not teach him anymore but I hear that he has showed consistent improvement in his behavior and academic performance since school commenced.

All It Takes Is a Little Bit of Faith

There was a teacher who guided me and acted as my light when I was struggling immensely in school with my stuttering disorder. She raised the bar for me academically and made sure I never quit. Her unflinching faith in me often surprised me and the reason I chose teaching was because of her. I wanted to have the same faith in my kids that she had in me. And that is why I feel it is important for teachers to offer respect and admiration for every little thing that the kids do. We need to be in constant awe of them. As teachers, we often forget that we are pursuing the profession for the kids, to make them better people, which in turn makes us better people. And teachers need to continue to improve until they find that one child who knows you trust him/her unconditionally.

And that is what Arun was to me, like I was to my teacher. He made me a better person and made me see it is important to overlook the little quirks and still believe in the innate goodness in someone. He made me see that having even the tiniest bit of faith can bring about change. Being effective teachers does not necessarily mean that you do the right things at the right time. It means you do the right things when no one else does.

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The Sastras of Teacher Education in South Asia: Conclusion

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INTRODUCTION

This is the second volume of our *South Asia Education Policy, Research and Practice* book series. In our first volume (Kidwai, Iyengar, Witenstein, Byker, & Setty, 2017), we examined how stakeholders across South Asia implement and enact Participatory Action Research (PAR). Our first volume included the assertion that PAR empowers stakeholders—especially in the field of education—to take action through a participatory method of research (Byker, 2017). Yet, we also echoed Robin McTaggart's (1991) caveat of the dilution of PAR vis-à-vis a disconnect between authentic participation in the community and its impact on practice. McTaggart (1991) explained that PAR "means sharing in the way that research is conceptualized, practiced, and brought to bear out on the life-world. PAR is also about ownership—the responsible agency in the production of knowledge and improvement of practice" (p. 171).

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We concluded our first volume with the statement that PAR is the construction of knowledge *by the* community in service *to the* community. Fittingly, the purposes for teacher education are supplanted in this constructivist notion of knowledge by the community in service to the community.

At first glance, this second volume may seem to only share cursory connections with the first volume. However, we argue that teacher education—as an institution—is constructed in service to the larger community. Such service is embedded in teacher practice and often reflects highly participatory forms of agency. Indeed, educators are and can be responsible agents in producing knowledge to improve their practice (Britzman, 2012; Byker, 2013, 2014a, 2015, 2016; Koirala-Azad & Fuentes, 2010, McTaggart, 1991). Yet, the impact of teachers' practice and agency—at both the macrolevel and microlevel—are challenging to clearly quantify. Naik (1975) termed this challenge the "elusive triangle" (p. 3) of providing equality within a high quality education system, which is accessible to a large quantity of learners. Probing the social context of teacher education also contributes to the elusiveness. The challenge requires dissecting how teacher practice is embedded in the economic, political, sociocultural, and sociohistorical milieu of a place (Byker, 2014b; Byker & Banerjee, 2016; Freire, 1970, 1994; Iyengar, Witenstein, & Byker, 2014; Kumar, 1991, 2005). Krishna Kumar (2005) wrote about how the contextual details of a place—including the historical legacies— shape a school and a teacher's everyday reality. He further explained that such context "should sensitize teachers" and shape their practice and assessment of children (Kumar, 2005, p. 14). Lave and Wenger (1991) explained how the contextual milieu encompasses learning as a social process, which becomes embedded within the culture, norms, and practices of a community. Framed as such, the volume provides a descriptive representation of the challenges, innovations, and outcomes of teacher education across the diverse contexts that comprise South Asia.

Navigating the Milieu

At the onset of the book, Rohit introduced the Sanskrit word śāstras, akin to a guide for everyday practice. Sastras represent the union between theory and practical activity. We argue that such an understanding of śāstras can be an instructive mechanism for navigating the milieu situating teacher education across South Asia. For example, the

preceding chapter provided a powerful vignette of—albeit with a sample size of one ($n=1$)—of Ashwathi's teaching practice. Toward the end of the vignette, Ashwathi explained her positionality as a teacher when affronted with the aforementioned milieu of place. She wrote, "In a society where people find it easier to detach themselves from the problems around them, I wanted to get involved more instead." Such a statement is a fruitful launching point for navigating the milieu with potential for leading to educational reform. Ashwathi's example of Shivaan's story exemplifies the type of reforms possible when teachers are committed to their students as learners.

Krishna Kumar (2005) centered the work of teacher education in the actual practice of teachers with learners, but cautioned against sloganeering such practice. He wrote, "Child-centredness can hardly be disseminated as a slogan. Teachers need to have a theoretical understanding and self-confidence to sustain the recommended pedagogy, and not merely exhorted or pressured to follow it for the sake of certain outcomes" (Kumar, 2005, p. 25). Indeed, one foundational understanding for developing a śāstra of teacher education is the recognition that teaching is a constructive dialogue among the educator, the curricula, and the learner (Byker, 2015, 2019; Freire, 2001). James McDonald (1992) referred to this relationship as the "wild triangle of relation among teacher, students, subject matter and the points of the triangle shift continuously" (p. 1). The chapters in this volume reflect this dynamic fluidity and adaptability of teacher education within South Asia.

Forming the Sastras

The sastras which emerged from this volume's chapters can assist in navigating South Asia's unique contextual milieu with its enormous human capital represented by over 16 million people annually entering the labor market (Economist, 2015; Senaratne & Gunarathne, 2017). Thus, we conclude this volume with a discussion of three sastras related to teacher practice in the region. We argue the three sastras inform the design of teacher practice and it is a practice that will continue to move the field of teacher education forward (Byker, 2015; Kumar, 2005; Setty, 2013). The three sastras include the following: (1) Teachers lead as policies guide; (2) action drives incremental progress; and (3) data and design shape a professional teaching practice.

Sastra 1. Teachers lead as policies guide. Teachers as leaders of their practice is one common theme among nearly all of the chapters in this volume. Yet, as many of the chapters (i.e., Baily & Sodhi's chapter, Bawane's chapter, Davis' chapter, Menon's chapter, and the Shah & Armstrong chapter) illustrated, teachers are often divorced from the discussions and formation of educational policymaking. This means that when policymakers direct teachers to implement educational changes, such implementation often happens in a vacuum with little regard to the teacher as a leader and contextual decision maker (see Kalyanpur's chapter). Naturally, this can lead to resentment and frustration. To move the field of teacher education forward in South Asia, a paradigm shift is necessary. Public perception needs to also shift toward the understanding of how teaching is a professional practice. Guria's chapter about the focus on pragmatic outcomes in teacher education and about teachers' role and the professional practice is a meaningful entrée toward this shift. Additionally, DiBiase's work also provided some promising findings related to the utilization of an active learning pedagogy toward reclaiming teacher agency.

Sastra 2. Action drives incremental progress. The next sastra centers on the outcome of teachers agency. We believe that teacher action drives incremental progress in teacher education. A number of chapters illustrated the benefits of teacher agency as teachers taking action in their classrooms (see the Brinkman chapter and the Kanaujia & Gorana chapter). It is important to note that taking action is often just a small step toward incremental progress. In the field of teacher education, policymakers and practitioners need to be careful of perceiving every new reform as a conduit to sweeping social transformations for the greater good of all involved. What is most often true is that policies are enacted by teachers and each action can have a small impact and make a difference in moving the field forward.

Sastra 3. Data and design shape professional teaching practice. The third sastra that emerged from this volume highlights how data and intentional design shape professional teaching practice. For example, Raza et al.'s chapter framed the discussion for strengthening teacher education support systems through data analysis. Yet, such data analysis needs to be through a humanitarian lens of supporting teachers in their practice rather than just excoriating. One promising model toward

professionalizing teacher practice is the Teacher Instructional Practices and Processes System (TIPPS) from New York University. Comparative research also uncovers new ways of thinking about challenges and models to address these problems. For example, Senaratne and Gunarathne's chapter about the model of Outcome-Based Education (OBE) used in accounting and management had many applications for teacher education including an emphasis on pracademic clinical placements. Additionally, the Moyer and Sperandio chapter and the Thirumalai, et al. chapter discussed findings related to the transfer of teacher training through purposeful activities like active reflection, mentorship, and an earlier timeline for the inclusion of clinical opportunities for preservice teachers. These are further steps—which are intentionally designed—toward developing a professional teacher practice in South Asia.

Conclusion

Developing these three sastras related to teacher education in South Asia is part of developing a teacher praxis. Paulo Freire (1970) explained that praxis is the connection between "reflection and action on the world in order to transform it" (p. 28). In the introductory chapter to this volume, Rohit asserted that this volume "offers a provocative introduction to practice-based teaching and teacher education and highlights innovations in the combined practices of practice-based teaching and teacher education." Now that we have discussed and highlighted some of the challenges and innovations of South Asia's teacher education, we close with a few remarks about a future research agenda for practitioners, policymakers, and researchers.

First, more research is needed about the innovative teacher education programs across and within the South Asian region's countries. To advance this work forward in the most productive and broadly applicable manner, it is critical to develop meaningful pipelines for disseminating the research and praxis network in the region. Tapping into current networks, expanding them, and developing new formal and informal ones should help spread this important work. Second, comparative research can be quite instructive. A future research agenda should include comparative research findings among the South Asian region compared with a region like the Middle East. Additionally, comparative work within the Region is a meaningful opportunity to share and

adapt innovative teacher education practices working in one community, to another. Considering how to connect this with the developing pipelines/networks concept shared above could make this a powerful endeavor. Thirdly, many chapters in this volume focused heavily on teachers and policymakers. Future research needs to include case studies of children and the impact of reforms on their lives in educational contexts. Shivan's story, for instance, in the preceding case study vignette by Ashwathi Muraleedharan provides an instructive model for the inclusion of children's voices. Next steps may invoke Youth Participatory Action Research (YPAR) and counterstory telling as methods that amplify children's voices. Fourth, more longitudinal research about the implementation of the three sastras would be beneficial and instructive in order to measure and assess their contours and nuances. Finally, the work in this volume can be used as a meaningful foundation to carry the three sastras and future research forward.

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