Demonstrating a situated learning approach for in-service teacher education in rural India: The Quality Education Programme in Rajasthan

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HIGHLIGHTS

► Two cases presented of teacher professional support processes in Indian schools.
► Paper discusses dialogic interactions and modeling as pedagogic support strategies.
► Highlights situated, collaborative learning potential for teacher education reform.

ARTICLE INFO

ABSTRACT

Recent educational policy in India has repositioned elementary school teachers as active, reflective practitioners, not just 'deliverers' of syllabus material. This article examines innovations in teacher support in Rajasthan's government schools through the 'Quality Education Program.' Drawing on qualitative research of collaborative learning processes, the paper discusses two support strategies used by the program: professional dialogic interactions and modeling of pedagogic strategies, which paralleled introductory or developmental phases within a 'collaborative apprenticeship model' of teacher professional development. In doing so, the paper outlines the potential of situated, collaborative approaches for Indian in-service teacher education and education development reform, more broadly.

1. Introduction

Since the mid 2000s, educational reform efforts in India have deepened the focus on issues of schooling quality. Such efforts in the policy and practice domain have primarily concerned themselves with challenging and redefining traditional curriculum and teaching methods toward a more constructivist orientation and a focus on children's conceptual learning (cf. NCF, 2005; NCFTE, 2009; RtE, 2009). In 2009, the passage of the Right to Education Act made it mandatory for the entire school system to adopt and implement curricular and pedagogic reform along this orientation. This fundamental shift in school education has repositioned teachers from mere 'deliverers' of syllabus material to active and reflective, professional practitioners and has necessitated aligning teacher professional development toward preparing and supporting teachers in bringing change in their everyday pedagogic practice. Against this backdrop, this paper examines situated learning as a means to support teachers make the expected pedagogic shift as envisaged through the teacher education reform effort in India.

Through reflecting on the case of the *Quality Education Program* (QEP), this paper considers ways in which in-service teacher education can be re-conceptualized in Indian rural government elementary schools. Implemented from 2007 to 2011 in Baran district, Rajasthan (a north-western Indian state), the QEP was a public—private partnership with the Government of Rajasthan, which intended to present an alternative model of in-service teacher education for teachers across the district based on in-situ, in-school learning opportunities. As part of the program, 'shiksha samarthaks' (referred as 'Educational Resource Intermediaries' (ERIs) in this paper) were to work closely with primary school teachers[1] to develop resources, model teaching activities, bounce ideas, and help plan lessons. This paper shares the findings from

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[1] Primary school teaching qualification in India usually involves 2 years of initial teacher training with a minimum prerequisite of 12 years of schooling. Unlike many other countries, teaching certification for the primary grades in India is not a post-graduate course.

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a qualitative school-based study to discuss the dynamics of the QEP teacher education process involving teachers and ERIs in Baran.

The analysis examines the situated learning processes that emerged through the engagement of the ERIs with primary school teachers. It shows how the ERIs drew on support strategies that attempted to respond to the contextual realities of the schools in which they worked. Located in a resource-poor environment in a remote, largely tribal district in the country, the educational processes in the Baran schools mirrored those of the majority of schools across the country. Predominantly acculturated in 'behaviorist' modes of instruction, the teachers emphasized syllabus completion and 'knowledge delivery,' to children, largely through rote memorization. Student–teacher relationships were rigidly hierarchical and the school environment and processes reflected these hierarchies in various ways. Working within this schooling context, the QEP attempted to support teachers toward building more participatory, student-centered schooling processes and environment.

The school-based strategies initiated by the QEP, parallel what Glazer and Hannifin (2006) describe as the 'introductory' or 'developmental' phases of a 'collaborative apprenticeship model.' In this model, an expert or mentor 'initially lead(s) a community of teachers towards the design and development of learning activities' (Glazer & Hannifin, 2006: 191). While the professional learning experiences were gradual and modest, the interactions between ERIs and teachers demonstrate an alternative to the rigidly hierarchical 'transmission' approach of teacher education that is dominant in the Indian context. The ERIs' attempt to recognize and respond to teachers' 'local knowledge' in the learning processes reflects broader national ideals of repositioning the Indian teacher as an active learner. The significance of this recognition of teachers' existing knowledge cannot be understated in this research context – it represents a step, howsoever small, toward imagining new approaches to in-service teacher education in rural India.

1.1. Re-envisioning in-service teacher education in India

Centrally sponsored schemes for in-service education of Indian teachers in the nineteen eighties and nineties followed a top–down approach (cf. MHRD, 2009), with syllabus and material developed and disseminated by a national-level government agency. The training paradigm followed a 'cascade' transmission of knowledge model in which key concepts and examples of 'quality' teaching were passed down to 'master trainers', then to trainers at regional levels, and finally to government school teachers. In such models, 'knowledge' was assumed to be a given, independent of context or experience, and easily transferrable. Teachers were positioned as recipients of knowledge, rather than professionals who were co-constructing and negotiating knowledge about their teaching practices. The 'cascade' training model has been critiqued for not integrating teacher-development into teachers' daily work practices, for failing to acknowledge and build on teachers' existing professional knowledge, and for using material disconnected to the contexts of rural poverty in which many teachers work.

Major initiatives for Indian education development – the District Institutes of Education and Training (DIETs, established in response to the National Policy on Education, 1986), the District Primary Education Program (DPEP, 1997–2001) and the Sarva Shiksha Abhiyan (SSA, from 2001) – have emphasized the need for more contextual and sustained in-service support for teachers. Decentralized mechanisms for teacher education were seen as key to this move. Across the country, Resource Centers were set up across village 'clusters' to provide academic resources and support for teachers. Teacher educators at the DIETs and extension functionaries at the cluster levels were employed by state governments to support teachers and organize professional development programs.

However, 'cascade' models of teacher education continued to characterize many of the ensuing decentralized in-service programs, and research suggests these initiatives have had limited success in engaging with teachers' local needs and supporting sustained change in teachers' practices (Clarke, 2003; Dyer et al., 2004; Mukhopadhyay, 2009). For example, Clarke's (2003) empirical study of teacher-training mechanisms in the 1990s showed how the delivery of in-service training failed to work with teachers' existing and often competing frameworks for learning. It was thus difficult for new pedagogic ideals to gain traction in teachers' practices. Furthermore, the decentralization of in-service teacher education did not always result in contextualized, on-going academic support as envisaged by program ideals. As Mukhopadhyay (2009) argues, the administrative duties of extension functionaries employed by state governments to work in schools often superseded their primary responsibility of providing teachers with academic support.

Such observations highlight that while past reform efforts achieved a measure of success in bringing support structures closer to the teachers' context, the underlying de-professionalized view of the teacher as a deliverer of curriculum material, continued to guide frameworks for teacher professional development practice. In a significant departure, the National Curriculum Framework (NCF) (2005) and later, the Right to Education (RtE) Act (2009) and the National Curriculum Framework for Teacher Education (NCFTE) (2009) challenged the behaviorist underpinnings of school and teacher education, calling for a constructivist perspective and approach. In line with this, these policy documents re-envision the role of the teacher as an active facilitator of children's learning. They present learning as a continuously evolving process and position the teacher as an active, reflective learner, gaining not only from the knowledge of experts but also from their own experiences. The teacher is expected to engage critically with the curriculum, syllabus and textbooks, and develop skills in facilitating learner-centered classroom interactions (NCF, 2005; NCFTE, 2009). This reconfiguration of the teacher's role significantly challenges established practices of Indian teacher education and urges new approaches to develop and support reflective practitioners in schools. It is this context that frames the discussion that follows of the QEP's innovations toward teacher support.

The principles of in-service teacher education and support, which the QEP demonstrated, are now embedded in the more recent and ambitious statewide, system-wide School and Teacher Education Reform Program of Rajasthan state. Though the QEP officially concluded in 2011, the study of this program provides a valuable opportunity to reflect on how situated learning approaches can offer a viable alternative for teacher support as part of education development reform. By exploring such approaches in the rural Indian setting, the paper argues that collaborative, situated models must themselves be instantiated in ways that are sensitive to the contexts in which they are being introduced. It is hoped that the insights generated from the reflections on the QEP will inform reflexive thinking about the transfer and translation of educational ideas across international settings and also underline the importance of applying similar contextual and cultural sensitivities when engaging teachers in professional learning in socio-culturally diverse communities within any national-context.

2. Situated learning in the contexts of Indian teachers' work

The situated learning perspective sees learning not merely as a cognitive process of knowledge acquisition, but as socially mediated and situated in a specific context. Numerous empirical

and theoretical studies in the west have explored the importance of, for example, peer-based collaboration, co-learning, and dialogic interaction in processes of situated professional learning (cf. Butler, Laucscher, Jarvis-Seligner, & Beckingham, 2004; Fairbanks, Freedman, & Kahn, 2000; Lieberman & Miller, 1990). Lave and Wenger's (1990) 'community of practice' theory has been especially influential in teacher-development literature – it is often drawn on to illustrate the importance of contextualized, situated processes of professional development, and the ways in which the participation in social relationships in schools can build learning communities (cf. Hodkinson & Hodkinson, 2004; Jaworski, 2005; Little, 2002; Rojoff, 2001). In this approach, teachers are positioned as active participants in learning processes, rather than passive recipients of training directives. For example, Skinner (2010) recently outlined a model of initial teacher education in the UK, which draws on a situated learning perspective. The model promotes a cycle of events involving observation, planning and reflection through which student teachers learn from experienced practitioners to become inducted into classroom teaching. Through this model, Skinner shows how the situated learning perspective constructs theory and practice in teacher education as co-constitutive. Both are shaped by the participation of experienced and novice practitioners in the learning cycle.

This emphasis on participation in learning processes proceeds on the notion that knowledge is socially constituted. Putnam and Borko (2000) offer an especially incisive overview of the 'social turn' in learning theory in the west that is particularly useful for thinking through future directions in Indian teacher education. They see three interrelated assumptions that underlie collaborative, contextual perspectives on learning. The first is that learning is situated in particular social and physical contexts. This implies that the contexts and processes of learning are central to what is learned – knowledge is contextual. Instead of a focus on individual cognition, there is an emphasis on 'interactive systems that include individuals as participants, interacting with each other as well as materials and representational systems' (Putnam & Borko, 2000: 4). Second, suggesting that learning is social, the authors posit that 'learning is as much a matter of enculturation into a community's way of thinking and dispositions as it is a result of explicit instruction in specific concepts, skills, and procedures' (ibid: 5). These two perspectives present new assumptions about knowledge – that it is less hierarchic and less fixed, and the authority relations involved in the transmission of knowledge are more fluid, locally contextual. Third, they characterize learning as distributed, highlighting that learning is seen as distributed across 'the individual, other persons, and various artifacts such as physical and symbolic tools' (ibid: 5). This perspective contests the notion of a singular or centralized authority of knowledge.

The idea that teacher education is a 'social enterprise' (Glazer & Hannifin, 2006: 179) comes as a profound challenge to the enduring tradition of the mechanical, top–down delivery of teacher training in India. This perspective requires the recognition of teachers' professional knowledge and the possibility for teachers to exercise some professional agency over their work. However, teachers' work in government schools in India is strongly shaped by inspectorial cultures, externally determined and tightly framed syllabus requirements, and increasing managerial practices of accountability – all of which render notions of professional autonomy difficult. The social position of Indian teachers, especially at the government primary-school level, is also problematic. Teachers are seen to exercise pedagogic control and strict moral authority over largely disadvantaged communities, yet they are also positioned institutionally as lower-level government functionaries (cf. Batra, 2005).

The contexts of poverty in which many rural Indian primary teachers work also impact teachers' professional learning opportunities and experiences. Rural schools tend to be under-resourced and teachers often have little access to books, computers and other teaching resources. Studies have also shown there are significant issues of low motivation among rural government teachers and high levels of absenteeism in schools (cf. Kremer, Muralidharan, Chaudhury, Hammer, & Rogers, 2005; Ramachandran & Pal, 2005). With respect to classroom relations, there is often a significant distance in terms of social class and caste between teachers and students in rural schools. Research by Mooij (2008) reveals how teachers often draw on socially deficit assumptions about their rural learners, explicitly positioning them as 'uneducated' and even 'uneducable'. The 'social process' of teacher education in rural Indian schools is shaped by these contextual complexities, and often in ways that are not commensurate to professional development experiences in well-resourced, urban schools elsewhere.

Putnam and Borko's (2000) characterization of learning as situated, social and distributed is thus a radical departure from the acquisition model of learning that has validated the centralized controls over teacher-education in India. Putnam and Borko argue that the situated perspective of learning does not oppose the 'transfer' of knowledge as such, but powerfully attempts to 'recast the relationship between what people know and the settings in which they know – between the knower and the known' (ibid: 12). In the Indian context, the establishment of Resource Centers in rural areas were in a sense a promising move toward collaborative and contextualized 'problem solving' approaches for the cluster's community of teachers. However, given the limited success of the Resource Centers in the past, there is still much to be understood about the dynamics of situated, social, and distributed learning processes in the Indian context by considering how collaborative processes of teacher support and professional learning can be better approached in Indian schools.

For example, the theory of learning advocated by Putnam and Borko (2000) requires teacher educators to recognize and work with teachers' existing professional knowledge. Indeed, much of the western literature concerning professional learning underlines various forms of reciprocal interaction between teachers and teacher-trainers (such as brainstorming, modeling, sharing ideas, and conflict resolution), which acknowledge the complex theoretical base from which teachers draw. Indian teachers, too, bring 'local' and professional knowledge to their practices. For example, ethnographic research by Sarangapani (2003) illustrates the ways in which Indian teachers often draw on local or folk knowledge to understand their role in school (for instance, as a *guru*, or a benevolent patron). Yet, in the Indian context, teachers' professional knowledge has been largely overlooked, positioned as irrelevant, 'soft', or deficient, by policy and program interventions.

Mohammad and Harlech-Jones (2008) usefully shed some light on the ways western models of collaborative teacher support were reworked in Pakistani government schools. The researchers suggest that (largely western) theoretical frameworks of collaborative learning need revisiting in light of the training backgrounds and institutional conditions of Pakistani teaching contexts, which are not too dissimilar to those in Indian government schools. Their research reported on a reform program that sought to build 'co-learning' partnerships between teachers and teacher-educators to enable all participants to 'understand the realities and difficulties of practice; and assist them to make improvements' (Mohammad & Harlech-Jones, 2008: 537). The researchers discussed how the program's principles of 'working together' did not naively deny the uneven distribution of power and knowledge in the desired mentor-relationship, or overstate the conditions of teachers' so-called 'autonomy' with respect to their teaching practices. For

example, teacher educators, 'while trying to be sensitive as possible to the requirements of dialogue and partnership, [...] adopted a leading role wherever and whenever it was necessitated by circumstance' (ibid: 543).

As examined in this paper, the QEP drew on collaborative ideals of teacher-support, which resonated with western literature on the situated, social nature of learning, but was also mindful of the locally specific institutional and social relations that would frame professional interactions between teachers and the program ERIs. For instance, teachers as government employees were not able to opt out of the QEP itself, as it was a government-supported public–private intervention. This did not of course preclude practices of resistance by teachers. The development of respectful professional relationships between the QEP–ERIs and teachers was thus central to successfully enroll teachers into the interests of the program. The recognition of teachers' existing learning frameworks and professional knowledge became an important part of this process. However, the ERIs took a leading role by facilitating dialog with teachers, modeling lessons, and making concrete suggestions to improve teaching practices in line with the program's aims. As the case studies show, teachers too adopted an active role, continually reinterpreting and reworking their pedagogic practices. Overall, the focus of the program was to encourage and demonstrate in-situ practices of participatory learning and support in clusters of rural government schools, and through this, to work toward what Dyer et al. (2004: 51) have identified as a much needed focus of teacher education in India: 'to build on and extend teachers' views of the possible.'

3. The Quality Education Program, Rajasthan

Initiated as a public–private partnership in 2007 between the Government of Rajasthan and three civil society partners, the Quality Education Program aimed to improve educational processes and outcomes across Baran district, one of the most educationally disadvantaged areas in the state (IDS, 2008). According to the 2001 census, over 80% of Baran's population is rural, and approximately 40% of the population belongs to tribal and other marginalized communities. The Saharia tribe is the main tribal group in this region. The district's overall literacy rate is 59.5% and the female literacy rate is 41.6%. The Net Enrollment Ratio at the primary level in the district is 100 (DISE, 2007–2008); however, schools are seen to have low attendance rates, especially those with large numbers of Saharia children. Achievement levels in reading and math are low: According to a national survey, only 55% of children in Classes III to V could read a Class I text and only 47% of these children could do subtraction using single digits (ASER, 2009).

The QEP team sought to work embedded within the DIET, the teacher support structure at the district level, with the intent of collaborating with schools and government education agencies toward school improvement district-wide in Baran. One aspect of the program involved establishing 78 'pacesetter' schools in the area.[2] The idea was to demonstrate a system of sustained teacher support to create a cohort of well-performing government schools that would 'set the pace' for reform. Aside from program 'faculty' recruited to work within the DIETs on teacher education, the QEP

employed 16 ERIs to work with teachers and government extension functionaries (at the 'cluster' level) in the district. The primary role of the ERIs was to provide pedagogical advice and mentoring for teachers, and to provide accompaniment to the government extension functionaries, who were to carry on this role technically in the pacesetter schools. The ERIs all held Masters' qualifications and had experience in teaching or community-based work in the educational non-profit sector. As part of their involvement in the QEP, the ERIs were trained intensively to develop pedagogic strategies to help them with their work. During the course of the program they met regularly to plan, provide feedback and share resources with each other.

Each ERI was assigned seven or eight 'pacesetter' primary schools, each of which was to be visited at least once every eight days. During these visits they were expected to provide pedagogical support to teachers by discussing teaching strategies, helping plan lessons, modeling different teaching approaches and guiding teachers to be responsive to the differing learning needs of students. Following the principles of the NCF, the QEP encouraged teachers to engage with constructivist learning approaches. This was a marked departure from the rote-based methods, which continue to dominate in Indian classrooms. Its efforts were also focused on bringing and actualizing ideas of inclusive schooling and on encouraging a child friendly school environment. In this, morning assemblies became a specific arena for intervention, with the idea of making them more participatory with the involvement of teachers. Furthermore, it sought to challenge hierarchic teacher–student authority relations and practices of corporal punishment (which are widespread in Indian schools), toward creating an environment that was welcoming and free from fear for students. Once a month, the ERIs helped organize peer meetings so that teachers from across the area could share their experiences and ideas. In this way, the QEP aimed to develop a professional community for teachers.

4. Research approach

This paper is based on a broader research study conducted in six 'pacesetter' schools, which examined how QEP processes of teacher professional development were being experienced in Baran schools, three years after the introduction of the program. The larger study used a multiple case study design (Creswell, 2007; Stake, 2005), where each of the six schools was first developed as an independent case study, following which findings were compared and analyzed across the six schools.

Data for the study were gathered in 2010. The study used a combination of methods. Focused participant observations were conducted for 4 days in each school to record pedagogic practices in classes and the interactions between ERIs and teachers. Observations focused on how the QEP's ideals of 'quality' practice were shaped by teachers and ERIs in schools. In-depth interviews with 14 teachers and principals, and 22 project staff and government functionaries were also conducted to explore the experiences and perspectives of these key actors in the QEP process, specifically concerning the in-school support to teachers. In addition, data was collected through informal discussions with participants, which were recorded in field-diaries. Secondary sources, such the QEP project documentation and past reports, were also analyzed. Inductive approaches were used to develop the independent case studies and later the analysis across school case studies so that the themes and categories of analysis were contextually grounded (Patton, 2002). Interviews were conducted, transcribed and analyzed in Hindi. Later, relevant quotations were translated into English.

Permission was sought to conduct the research at each of the schools and the intentions of the research were explained to

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[2] The 'pacesetter' schools were assigned to the QEP by the school district administration. For school administrative purposes, each district is divided into 'blocks' and further, into clusters. The pacesetter schools belonged to two blocks, and within these, to two clusters each. One of the blocks was selected on the basis of its geographic proximity to the district headquarters, and the other, because of its large tribal population. The selection of the clusters within these blocks was done randomly. All the schools within each selected cluster were included in the QEP as pacesetter schools.

participants as part of the ethics process of gaining informed consent.[3] Pseudonyms have been used for the names of teachers, the ERIs, and schools involved in the research to protect the identities of participants.

This paper presents two cases of professional support and development processes. While the QEP was experienced differently and to varying degrees of success in Baran schools, the cross-case analysis revealed complementary strategies, which resonated with the situated learning perspectives described above. This paper presents two prominent complementary strategies that were used by QEP–ERIs: sustained dialog with teachers about their pedagogic practices, and the situated modeling of strategies to building a child-friendly school environment. These strategies sought to encourage the two substantive areas of change to teacher practice: developing new pedagogic strategies which would shift the focus from rote-learning to active processes of meaning-making; and building an inclusive, participatory environment in schools. The reflections on these processes of change aim to demonstrate the value of a situated learning approach to education reform.

5. Working with teachers in schools: two cases

5.1. Case study 1 – using professional dialog to encourage new pedagogic strategies

Basant Government Primary School is a single teacher school comprising grades 1 to 5. At the time of data collection, the school had an enrollment of 54 children of mixed ages and catered to children from Basant village. The Saharias, a tribal community comprising mostly landless laborers, are the largest community in Basant village. Most parents of Saharia students at Basant school have limited or no experience in formal school education, and many parents are unable to read or write. The population in Basant village is also made up of other socially marginalized caste groups who are seen to be socio-economically slightly better off than the Saharia community, but are not from dominant or upper-caste groups. The student body at the school reflected the social composition of the village, with 30 of its 54 students belonging to the Saharia community.

Param was the only teacher in Basant school. He lived in Basant village and his son was enrolled in grade five at the school. According to the QEP's initial assessment, Param was a committed teacher who had built positive relations with the local community. He also belonged one of the socially marginalized, albeit relatively economically better off, population groups in the village. However, the program identified that the teacher's practices could benefit from further support, particularly with respect to managing the multi-grade multi-level classes of students (as the only teacher in the school), and developing pedagogic strategies beyond rote-based lessons.[4] Chela, the QEP–ERI had been working on supporting Param for over two years on these two aspects.

Since being part of the QEP, Param, in his Hindi language instruction, had started to use new pedagogic strategies, which involved an emphasis on contextualization and meaning. For example, in a class where he was teaching students the vowel-sound (*matra*) of é, he introduced the sound by using common Hindi words like *lapét* (to wrap), *méra* (mine), and so forth. The teacher broke the words up into their component syllables (for example, *la-pé-t*) and then re-joined the syllables to form the word and explained their meaning. In this way, Param attempted to teach the vowel-sound within the context of its occurrence – as part of a commonly used word, whose meaning was either familiar or made explicit to students. The words were read in a similar manner and repeated by students as a process of consolidation and revision.

This approach to teaching language was in sharp contrast to the teacher's earlier approach. In his interview, Param described his earlier approach of making students first memorize all letters of the Hindi language, next, the letter and vowel-sound combinations, and then combining these to form words. Akin to memorizing all letters of the English alphabet first, and only then combining them to form words, this is a deeply rooted, established practice of language teaching in Indian classrooms. However, now, with the QEP interventions, Param had begun to experiment with the new pedagogic approach of foregrounding the meaning of words in his language instruction.

While Param's language teaching still had some emphasis on rote memorization, he had shifted toward a more contextualized instruction. He acknowledged that the changes to his teaching were influenced by his interactions with Chela, the ERI who was working at his school. The interview data revealed that a process of continual dialog between the teacher and the QEP staff on issues related to instructional strategies and students' learning processes greatly influenced Param: His interaction with Chela had made him more responsive to each student's learning needs and helped him tailor his instruction to their individual learning requirements. Reported below is the nature of professional interaction and consultative processes between the teacher and the ERI to show how the new pedagogic strategies were negotiated and collaboratively brought into practice. Often initiated by the ERI, these discussions focused on introducing new ideas, and within the context of the teacher's existing knowledge and practices, continued to further a dialog for reflection and action along the lines of the new pedagogic shift.

When Chela began visiting the school, he observed that the teacher used a 'whole class' teaching approach. As the only teacher in the school, Param would assign the same task to all children, even though students in grades 1–2 sat in one classroom, and those in grades 3–5 sat in another classroom. There was no assessment of children's different learning levels and consequently Param did not plan his instruction by reflecting upon students' individual needs. Rather, his focus was on completing the syllabus and disciplining the class. Considering that teachers in this context scarcely prepare lesson plans based on the differing knowledge and learning levels of students, encouraging a shift toward an approach which focused on learner needs could be considered ambitious, even though it was a critical mandate of the QEP. Nonetheless, as part of his support-role, Chela wanted to encourage the teacher to consider a differentiated learning approach for students. Chela suggested a strategy of group-wise instruction, asking Param to separate children into groups based on their language and math ability levels, irrespective of their grades. The content and pedagogic approach would be tailored according to each group's needs.

Chela described how the teacher was initially resistant, unconvinced that his instructional approach needed to be changed. With the intent of encouraging Param to reflect on the ways his teaching could be improved, Chela asked him to have students complete

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[3] There is no ethical review board at any of the institutions involved in the study. After explaining the objectives of the study, oral consent was sought for the interviews and school-based observations from the Block Education Office, and from the respondents, which included school principals and teachers, project staff and government functionaries. Permission was also sought to audiotape the interviews and write field notes. The participants had the right to withdraw from the study at any time.

[4] Indian state teacher education programs have only recently seen efforts at training teachers in dealing with multi-grade and multi-level contexts of their classrooms. In Rajasthan state where the QEP was located, these efforts were located in small geographic pockets as pilot programs. Baran was not part of the pilot.

a mathematics and language worksheet so that the teacher could identify the students' areas of strengths and weaknesses at their respective grade-levels. The diagnostic activity revealed that students had very low levels of literacy, which surprised the teacher and prompted him to ask the ERI for suggestions. In his interview, Chela recounted a discussion with Param in which the teacher was reflecting on the implications of this exercise for his teaching. Param had started to see that he needed to tailor the syllabus to students' learning needs, rather than mechanically working through it: 'If I teach according to the syllabus, children are not learning − I am now able to understand that'. During this discussion Chela suggested to Param: 'For now, you will have to keep the syllabus aside. First, let the children learn to read and write. Then whether it is the syllabus or any other thing, it can be done'.

In light of his interactions with Chela, the teacher agreed he needed to focus his instruction on specific aspects of literacy, which the worksheet-exercises helped identify. This led to a marked shift in his pedagogic approach, which thus far was driven by a focus on syllabus completion and not on *how* students were developing literacy knowledge and skills. Together, Param and Chela divided students into four groups for language and mathematics based on qualitative assessments of students' learning strengths and weaknesses. This itself was an important process as it was the first time Param was encouraged to explicitly identify the learning needs of each of his students. As his classroom observations reveal, Param now differentiated his instruction based on his continued assessment of the learning needs of students in each group. During lessons he was observed to rotate between four groups of students, working with them on their learning tasks as well as assigning new activities for each group.

In this example we notice how Chela did not explicitly impose or prescribe strategies, but created ways to encourage the teacher to take reflective action on his classroom instruction. Specifically, the worksheets Chela introduced were used as a springboard for the teacher to discuss and critically reflect on students' literacy levels. This opened a space for dialog, enabling Param to consider alternatives to his instructional approach. Importantly, the teacher was encouraged to consider each child's learning needs through the process of identifying learning groups, a small yet significant step in the context of Param's previous pedagogic practice of undifferentiated teaching in his mixed-grade classrooms.

Chela's dialog with Param built on the teacher's existing knowledge of syllabus-based instruction. Indeed, engaging directly with the teacher's professional knowledge was a significant part of the ERI's approach to teacher support. As discussed in the following example, a QEP reading program called 'Sahaj Pathan' ('Easy Reading') was introduced to Param through a professional dialog between the ERI and teacher. This involved Chela acknowledging and explicitly engaging with the teacher's professional concerns, and negotiating the ways in which the reading program could be adapted and used in the context of Basant school.

The Easy Reading program comprised 16 stories and poems in Hindi. Teachers would read these texts to students, discuss their meaning and significance, and explain new vocabulary. Students would then work in groups on different activities like reconstructing the story/poem using sentences taken from the text, or identifying words with particular letters and vowel sounds. The teacher initially expressed reluctance to use the Easy Reading material in his lessons: he had been previously trained to teach reading using a different approach. In his earlier training, Param was taught that reading in Hindi should be approached through a set sequence: first, teaching students a few letters, then forming words using those letters. In contrast, the Easy Reading approach aimed to introduce students to words by focusing on each word's meaning in the context of the story or poem. Words were then

broken into their phonemes that comprised the component letters + vowel-sounds and children were asked to re-join phonemes to form the same and other words. The emphasis throughout was on contextualized meaning rather than recall.

According to Chela, the teacher felt that the new Easy Reading method would take children too long to learn to learn since they would begin with little or no prior familiarity with letters. He still favored his earlier approach. Realizing the disjuncture between the two approaches to reading, Chela tried to use Param's prior knowledge to find points of connection to the aims of the Easy Reading approach. Chela agreed to put aside the QEP's recommended model and began with the approach that Param was familiar with. They worked with a group of children to practice their letter recognition skills. Next, they introduced these students to a few vowel sounds in conjunction with these letters − the approach that the teacher customarily used. After this initial familiarization, Param felt comfortable to try the new approach. Chela described the discussion he had with Param to negotiate the use of the Easy Reading approach:

'If you work with *Sahaj Pathan*, you will save time. You take 4 words [from a story]. After work on the beginning syllables of those four words, take the next four words, without the vowel sound. But the subsequent four words that you select will have vowel sound. So you can join the vowel sound [with the letter] and begin [children] on sentence reading.' The teacher accepted that. In the beginning he did not work on it − the work was very slow. For months the teacher kept saying, 'I have done much work on this but the children do not learn. In the end, I demonstrated something to him, saying, 'try doing things in this way.' We would repeatedly discuss and return to the same point that 'you (Param) are moving too fast. Children need more revision.' The teacher began to accept this slowly. And now, the teacher tries to do a lot more than before.

In this instance, given Param's reluctance to use the Easy Reading model, Chela adapted the suggested approach. What is of consequence here is that Param and Chela were able to engage in pedagogic discussions with each other to arrive at a workable solution. Chela observed the teacher's practice closely and offered his inputs accordingly. Chela reflects on how he approached the issue:

Whatever ideas are there − from him (Param), I combine those with what I think or what my team thinks. So we try and arrive at a common understanding.

Chela's methods reveal that implementing the Easy Reading model was not simply a matter of 'transmitting' a set of strategies to the teacher, but a negotiation that led to a 'common understanding.' Reciprocity was at the core of Chela's approach, which engaged with the teacher's prior knowledge and through dialog, demonstration, and feedback, to arrive at a workable solution for using the Easy Reading stories and the suggested methods for teaching contextualized reading skills.

5.2. Case study 2- situated modeling of strategies toward building a child-friendly school environment

Neelkamal Primary School serves the population of two neighboring villages: Neelkamal and Safa. Comprising 150 households, Neelkamal village has a diverse population consisting of nearly all caste groups in the district. There are a few Muslim households and a Saharia population. The lower caste population group and Saharias are marginal farmers or landless laborers. Safa village is larger and with a population socio-economically better than Neelkamal's. Safa's recent economic prosperity led to the opening of a large

number of private schools, leading to a flight of better-off children from Neelkamal school. In 2002, the school had an enrollment of 170 children, but by 2009, the enrollment had dropped to 85. Further, there were no children from the 'general' caste groups currently enrolled at the school. The challenge for government schools such as Neelkamal is that the children who attend are those that are left behind, belonging to the various categories of most marginalized, resource poor and usually happen to be first generation learners.

Of the 85-enrolled children at the school, 30 belonged to the Saharia tribe. The students belonged to poor households; many did not possess basic stationery for schoolwork. There were two teachers and a principal appointed at the school. The principal, who was previously a teacher at the school, had been promoted to his present post a year ago. Of the two teachers, the senior teacher had been teaching at this school for nearly 13 years; the second teacher had been transferred to the school in 2008. The principal and the senior teacher (Sheila) were upper caste. The younger teacher (Kunda) belonged to a lower caste group.

During its first visit to the school, the research team observed Sheila hit a couple of children in an effort of making them sit together in a group. She looked in the researchers' direction almost immediately and by way of explanation said that she had no option, as the children were uncontrollable. Punitive action against children appeared to be commonplace at the school. During an interview, Raj, the ERI, indicated that the incidences of corporal punishment had reduced considerably in recent times. Recounting an incident, Raj spoke about how he chose to intervene in the use of corporal punishment at the school, a critical event in initiating change in the disciplinary practices at the school. The event occurred when Kunda, the second teacher at the school was reprimanding some children about coming to school without bathing. Raj explained how he stepped in when it was clear the teacher was resorting to physical punishment:

Madam said, 'Stand up, make him stand up. All those who have not bathed today, stand up.'.... So the children stood up and she ordered for the stick. So I said (to the children): 'Should we take a bath everyday or not?' They replied, 'we should bathe'...So I asked, 'tell me why we should bathe every day?' [They replied], 'Sir, if we remain clean, then we will not fall sick, and if we don't fall sick, we will remain healthy.' Then I asked, 'Now tell me how many of you will come taking a bath?'

Everyone's hands went up. I said (to the teacher), 'Madam, do one thing, tomorrow if some children come without bathing, ask them the reason. Keep the stick aside.

Raj proceeded to describe his discussion with the teacher — perhaps children did not bathe because it was the bitterly cold month of January and did not have access to hot water. He emphasized to her the importance of knowing the reason before resorting to physical punishment. Raj relied on a hands-on approach, modeling and negotiating the appropriate behavior between adults and children at the school. He chose to intervene directly in the critical event described above by engaging with the children in a manner that he wanted the teacher to emulate, and then openly discussing with the teacher alternative responses. In his subsequent interactions with the teachers, he described how he underlined the importance of understanding the child's reasons, her problems, and to not resort to punitive measures.

Raj also modeled strategies of teacher–student interactions in other contexts within the school. His approach was to provide opportunities for teachers to learn-by-doing, through demonstrating the suggested approach first through action. Observations of the morning assembly provide a good example of this.

The morning assemblies at Neelkamal were lively sessions. Facilitated mostly by Raj, children would sit in a circle and go around in turn to recite a poem or story. Some days, Raj would end the session with a story, encouraging students' participation. Other days, children performed short plays. The display of enthusiasm and the emphasis on each child's participation stood in contrast to the nature of assemblies before Raj came to Neelkamal school. As data from the QEP baseline study in 2007 shows, the morning assembly comprised mostly of rituals of prayers and patriotic obeisance. Teachers never participated in these sessions, but delegated responsibility to a few children who led the assembly (VBERC, 2009).

During the sessions observed at Neelkamal, Raj sat on the floor as part of the children's circle and participated actively with them. However, the teachers chose to sit on chairs at the far end. In one such session, Raj invited the teacher, Kunda, to participate. He gave her some lead-time, telling her that she should tell the children a story after he had taught the children a new poem. When he finished, he looked over at Kunda and said, 'Sister, tell us a story.' Kunda obliged with a smile, and related a story of the friendship between a tortoise and a fox.

By taking the lead in the morning assembly sessions, Raj demonstrated to the teachers the characteristics of what a participatory morning assembly could look like, and *how* the teacher might facilitate it. According to him, while Sheila did take the initiative sometimes to conduct the assembly, Kunda was far more reticent. In the interaction described above, the ERI encouraged Kunda, in particular, to participate in the assembly. His approach was both strategic and sensitive: by putting responsibility on the teacher, he created small opportunities for her to engage with children in a more participatory and less hierarchical way.

Transforming the existing hierarchical relationship between teachers and students is essentially a gradual process, which required Raj as the ERI to adopt a leadership role in the morning assembly and create opportunities for teachers to learn new forms of interactions with children. Consequently, Raj's facilitation of the morning assembly was not simply a one-time demonstration of strategy, but the on-going modeling of an approach. The intention was to embed an alternative perspective about the relationship between students and teachers and highlight the value of creating an environment where all children participate without fear. While there was evidently much work to be done, teachers saw value in engaging in this process. As Sheila observed in an interview:

Earlier children were made to recite the prayers, the pledge, the national anthem, 1 − 2 religious songs, and we would make them [the children] sit. Now, the thing is that all the children have lost their hesitation. We make all children speak, so they open up. If [a child] does not speak, then we put a hand on her back [for encouragement] and have the child speak, even if a little. So they lose their hesitation and gradually begin to speak. And earlier it was like whoever knew, would speak.

6. What has the QEP demonstrated for teacher education reform in the Indian context?

The case studies present examples of situated learning opportunities and support for teachers through the use of professional dialog and modeling. The QEP focused on supporting change in teacher practices at school sites, providing teachers with concrete strategies, which were grounded in participatory, constructivist approaches to learning as per the NCF (2005). The case studies illustrate that in the context of these isolated rural schools, with the absence of any substantive previous pedagogic support at their school sites, situated learning took the form of the ERI initiating

new ideas and scaffolding teachers' practices to adapt to these new approaches. Their strategies of dialog and modeling were rooted in the specific contexts of the schools and were approached through a continual process of negotiation with teachers.

In these cases, there are some commonalities with Glazer and Hannifin's (2006) model for collaborative professional learning in teaching communities. The authors suggest that collaborative apprenticeship often occurs through multiple phases in which teachers and mentors progress through different roles. The four stages they identify are: introductory, developmental, proficient and mastery. At the introductory phase, the mentor or teacher-leader might model the implementation of a new instructional method, and engage with teachers to reflect and discuss the strategies for the development of that method. In the QEP case, new instructional methods were initiated by the ERIs, but these new ideas were negotiated with teachers and worked with teachers' existing knowledge and experiences. The second phase of Glazer and Hannifin's collaborative model is 'developmental' – involving teacher collaboration for the design, development and implementation of learning activities. In this phase, the teacher-leader might offer scaffolding and coaching for the development of new instructional methods. Traces of this collaborative relationship were seen in the Easy Reading example, in which the instructional strategy was reshaped by both the ERI and the teacher in a collaborative fashion.

Whereas Glaser and Hannifin's model predominantly concerns peer-learning within the teaching community, the case of the QEP involved mentors coming from outside the school. Nevertheless, the significance of the collaborative apprenticeship process in the Baran context is that it appeared to be building the kinds of reflective, reciprocal cultures required for collaborative peer communities. Importantly, the on-going nature of the engagement between teachers and ERIs meant that situated learning perspectives were encouraged. The ERIs' approach of creating opportunities for teachers' professional learning drew on the everyday contexts of the teachers' work. The processes of dialog and modeling with the teachers used the specific contexts of the schools to suggest practical strategies and opportunities for teachers to reflect on their contexts of teaching. As in the case of Basant school, Chela focused on addressing the teacher's overriding instructional emphasis on syllabus completion, which had ignored children's learning needs. Chela used diagnostic worksheets as a springboard to address this issue, which led to a process of dialog with the teacher on why and how his practices could change. It is important to note that while the issue that Chela chose to focus on was guided by the broader goals of the QEP, his interactions with the teachers responded to the teacher's specific practice. In the episode presented in Neelkamal school, Raj introduced elements of change in the teacher–student relationship through direct intervention, taking initiative himself. He modeled an interaction between the children and the adult in an immediate developing situation and followed it up with continued discussion with the teachers, aiming to deepen the teachers' understanding and appreciation of the learners' context.

The case studies show that bringing change to existing schooling processes involved on-going negotiation between the ERI and the teacher. As illustrated in the examples of the Easy Reading model or introducing group-wise instruction, the ERI did not presuppose knowing all the answers or sought to impose 'solutions.' Instead, he used the teacher's current practices and knowledge as the starting point for dialog. In a different way, in Neelkamal school, through smaller roles assigned to teachers during the morning assembly, Raj initiated the process of having teachers learn new forms of interaction aimed at bridging the hiatus between the teacher and learner. In these ways, teacher

professional learning occurred within and as part of a continual social process. Importantly, teachers were positioned as professionals with knowledge and experience, with an ability to reflect upon their practice. Consequently, the nature of support was one that was reciprocal, based upon interactions of mutual engagement and negotiations among professionals belonging to a larger community of practice.

It is important to understand why the QEP's approach marks a significant departure from dominant modes of teacher professional learning and support practices in the Indian context. The Indian government school system is regulated by an institutional culture that has not invested in teachers' pedagogic knowledge or authority. Thus, models of teacher support tend to be structured in ways that make teachers' professional knowledge invisible and fail to recognize the need to continually grow as practitioners. Continuing teacher education, or 'training' as it is colloquially referred to, is 'delivered' to practitioners through pre-determined modules. The on-going teacher support, even though institutionally mandated, is aimed at maintaining 'status quo': Resource centers, for example, are poorly staffed and lack skilled personnel. Their facilitators, where present, are scarcely equipped professionally to provide academic input or support to teachers.

It is within this institutional space that the QEP entered and operated. Of course, the 'outcomes' of what the QEP achieved were uneven across schools and their contexts. However, what is of value here is the demonstration of an alternative construct of teacher professional learning and support which responds directly to teachers' existing knowledge and their everyday professional practice in line with the expected shift to be actualized by state school and teacher education set up in compliance with the key policy directives of the NCF (2005) and RtE (2009).

The demonstration of this alternative construct is of interest at this juncture, in light of the increasing emphasis in teacher education reform in India and elsewhere, toward professionalizing teacher education and making it relevant to the contemporary needs of school education. This construct draws attention to new possibilities of conceptualizing authority and control over knowledge – to recognize ways knowledge is contextual, shared, and social (cf. Putnam & Borko, 2000), and through this, offer how teacher education practice may be conceived in new ways. The case studies illustrate how teacher professional support could be developed as a shared enterprise, with social interactions among professionals playing a key role in providing a context for continual learning. This allows us to stake a claim for teachers' professional knowledge and practice within the institutional space of Indian primary education and for the visioning of support that would nurture it. This program is of significant learning in the context of teacher education reform in India and demonstrates the method and content of teacher support.

In the context of reform efforts, it is important to appreciate the criticality of creating the appropriate institutional conditions, such that situated learning approaches to teacher support are sustainable at scale. New approaches to teacher education and support will find it difficult to succeed in isolation, unless they are situated as part of a broader reform mandate focused developing a different institutional culture within the government, based upon critical thinking and praxis.

It was with this broad-based perspective that, subsequent to the discontinuation of the QEP, the Government of Rajasthan renewed this into another six year partnership in 2011 for a comprehensive reform in school and teacher education, statewide, allowing this new thinking and vision to be aligned systemically within the entire institutional space. The reform initiative includes renewal of the initial teacher preparation curriculum and practice, new school syllabi and textbooks and in-service teacher education.

Significantly, the reform effort critically links its process to the perspective building and contributions of teacher educators and teachers in the state. Brought together as the Teacher Educator Group to contribute to the reform effort, the state has facilitated a process of collaborative learning among the constituency of teacher educators and teachers on the new vision of pedagogic shift as per the NCF (2005) and RtE (2009), to systematically share and build knowledge as communities of learners. In a radical shift from centralized, top–down planning, design and implementation of school and teacher education curriculum, this constituency is now being seen as a key contributor to the development of the new curriculum, syllabus, textbooks and related teacher support as per the NCF (2005) on which was QEP interventions were tailored as well.

To develop the practice of teacher support further and draw continued evidence, the reform initiative has expanded the intensive pedagogic support in three districts, wherein 50 schools each are to be developed through strengthening the existing institutional set up, as model schools for the desired pedagogic practices to be grounded and aligned with the RtE Act. This aspect directly embeds learnings from the QEP and underscores the idea that strengthening the capacities of the state institutional setup, including that of their functionaries, is the way forward so that the changes introduced are organically embedded and rendered sustainable.

Arguably, if innovations like the QEP, which are on a smaller scale, are to bring the desired teacher support and pedagogic shift, they need to be aligned with simultaneous and parallel reform within the larger governmental institutional culture. The reimagining and reinvigoration of the institutional setup would create the possibility of an appropriate environment, necessary legitimacy and reinforcement toward smaller efforts, so that the principles unpinning the reform efforts — both small and large, have a chance to sustain over time, with consistency of purpose.

Acknowledgements

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