9. Teacher Education and Classroom Practice in India: A Critique and Propositions

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How young people experience classroom practice is directly linked to the teaching-learning experiences they encounter. This enables them to make meaning of the social realities around them. Situated in India's stratified and exclusionary society, teaching-learning environments tend to reproduce existing hierarchies. This is strengthened by conventional epistemological frames that often militate against the aims of humanistic education and Indian Constitutional values. Hence, the teaching-learning process is central to developing a critical citizenship and democratic disposition. Dewey (1900) viewed schools as miniature societies that could enable the cultivation of a democratic social order. This in turn is intimately linked to how teachers are prepared.

Classroom practice in contemporary India is largely seen to be determined by 'what is taught' and 'how it is taught'. In this frame the teaching-learning process is viewed narrowly as the effective delivery of the school curriculum which in turn can only be measured through learning outcomes. The role of teacher preparation in transforming the teaching-learning environment is largely unrecognised. Even where this may be understood, the deeper underlying dynamics are unexplored.

This review paper attempts to do just that. Drawing upon disciplinary and inter-disciplinary perspectives it tries to comprehend the intimate relationship between the education of teachers and classroom pedagogic practice. This would be done by first examining educational change in the larger international and national socio-political context. Following this, the teacher education

discourse and institutional patterns argued to have a direct bearing on classroom practice are examined.

Educational Change in the Neo-liberal Context

Educational change needs to be seen in the contemporary context of a neo-liberal economic and social engineering oriented international policy discourse, centered on concerns of national competitiveness in a globalising world. Education reforms since the 1980s in economically developed countries were driven by the demands of a highly skilled workforce in the context of free market economies. Studies have revealed how this led to greater 'monitoring' and 'control' over the performance of schools and the recasting of teacher education within a discourse of educational effectiveness across Europe, UK, North America, Scandinavia and New Zealand (Thrupp, 1999) leading to a 'new public management regime' (Mahony, 1997).

Even though India is a lower-middle income country with very different developmental needs this discourse gained momentum in India over the last decade. This could be traced to the increasing engagement of the corporate sector and international interests in education, leading to a superficial policy consensus around the instruments of change in school education. This is often in conflict with the entitlement input-based approaches that are now constitutionally and legally mandated and increasingly enforced by the courts.

The second specific context is the immediate educational concerns of curriculum development and the preparation of teachers that has attempted to shape educational practice. Viewed from the context of praxis, educational discourse in some of the developed countries saw a major shift of redefining the problem of teacher education from a *training* problem during the 1960s and 1970s to a *learning* problem in the 1980s (Cochran-Smith & Fries, 2005). Ideas and associated practice of reflective teaching, generated practitioner knowledge within frames of sociological and feminist research on curriculum and assessment. Beginning with the New Sociology, followed by the post-modernist and feminist discourse, academic debates have brought into question the processes of curriculum design, selection of knowledge and pedagogic approaches. While early sociological theorists made explicit the relationship between educational knowledge, social control and cultural reproduction (Apple, 1982; Bourdieu & Passerson, 1977), a later post-modernist and post-structuralist discourse serves to challenge the very idea of knowledge (Ball, 1993; Middleton, 1995; Moore & Muller, 1999; Weiner, 1994).

As observed by scholars, educational reform in economically more developed countries was characterised by two opposing viewpoints: the multiple voice of the academia on the one hand and the voice of the politicians and policy makers on the other (Carr, 2005). Although policy makers cognise the importance of the wider aims of education, economic gains from education are seen to be primary; and education is seen to be central to the reconstruction of the nation-state in a globalised world (Lauder, Brown, Dillabough & Halsey, 2006)

As a result of such reforms a renewed emphasis on education as 'deliverables' and 'outcomes' came into being. This discourse speaks of economic efficiency as linked to the proposed educational agenda of enhanced learner assessment, teacher accountability and effectiveness. In this frame the

pedagogic enterprise is to 'teach to test' and the central thrust of pedagogic practice is one of 'control' and 'outcomes'. As testing regimes lead to market competition between schools, they change the very nature of teaching and learning. Feminist research has demonstrated how market-oriented performance pedagogies sustain rather than reduce class and gender inequalities (Arnot & Reay, 2006) and how education transmits the neo-liberal discourse and versions of selfhood (Walkerdine & Ringrose, 2006). Parental choice, testing regimes and the 'new managerialism' assumes that educational institutions can be run as businesses (Lauder, Brown, Dillabough & Halsey, 2006). As a result philosophy and sociology of education cease to be valid engagements for the preparation of teachers as they are argued to have no direct bearing on the nature of teaching, issues of knowledge considered valid in a globalising world and how it is learnt.

There are several specific ways in which this has shaped educational practice. It has replaced learning experiences with regimes of national and international testing¹. It has shrunk the space for social sciences in school learning due to the exclusive emphasis on the testing of maths and science achievement. The result is a narrow focus on skill-based, instrumentalist aims of education. More importantly, these reforms reflect a fundamental shift in thinking about education and its purposes, across the world. Allais (cited in Soudien, 2011, p. 196) observes how education has been deeply influenced by reductionistic economic discourses that have minimised the purpose of life to mean individual free choice. This she argues has replaced the idea of 'collective agents and structures' with the 'utility maximising individual'. There appears to be a "convergence between economic and educational discourses, with the former coming to give the latter its substance and content"

Similar, yet opposing strands of thought can be discerned within the more recent policy discourse in India as well: the neo-liberal frame of standardisation, teacher accountability and learning outcomes that regards education as an enterprise of efficient delivery especially in the context of Right to Education (RTE) (GoI, 2009). This is in contrast to the academic-led perspective on school curriculum (NCF, 2005) and the proposed preparation of teachers (NCTE, 2009) that re-affirm the central role of teachers as agents of social transformation. It is important to note that the curriculum framework for schools and teacher education, although in consonance with processes of policy-making are nevertheless outside the domain of policy enforcement and the current instruments that are used to enable this. Policy for instance, cannot ensure that a curriculum is interpreted as intended through the medium of a textbook. Therefore, while school and teacher education curriculum speak of educating for and in a diverse society, specific policy measures adopted, such as large scale testing of learning outcomes, seek to standardise school education. Likewise, policy makers' rhetoric often focuses on the need to enhance the quality of teachers and to bring teacher education in line with the perspective of National Curriculum Framework for Teacher Education (NCFTE), 2009. Policy enforcement on the other hand seeks to ensure teacher accountability rather than teacher development.

This wedge in the educational discourse became visible with the first wave of liberalisation in India in the early 1990s. As reflected in the Kothari Commission (1966), the pre-liberalisation educational discourse in India was citizen-based with an emphasis on a modern vision underpinned by a critical scientific perspective. The role of the teacher was linked to social transformation as a core educational aim.

The NPE 1986 shifted focus by bringing the child to the centre of educational reform process. Post-Jomtien (1990) pressures to universalise elementary education however, led to the mechanical chasing of targets and reliance on 'economically viable' but 'sub-optimal' options, thus compromising quality. A huge district-based education delivery infrastructure was established with almost no focus on developing practitioner capacities. This missed opportunity led to a further decline in the quality of teacher education over the 1990s.

The second wave of liberalisation in the 2000s of the service sector economy, led to a deeper penetration of market-based reforms in the education sector. The success of the neoliberal growth model meant increasing buoyancy of central resources and the redefinition of education as a deliverable. Several new programmes were initiated to universalise elementary education. With this came a range of unexpected consequences such as a concerted focus on an outcome-based approach to education, as the international educational discourse and Indian market-led reform came together.

Opposing viewpoints first manifested starkly in the 'quality' discourse in India with the entry of large scale corporate and linked civil society interventions. Ideas of learning guarantee through large scale testing of learning outcomes; school and teacher performance and management began to define the 'quality' dimension of education. A spate of commissioned educational research funded by donor agencies led to a discourse around aspects of teacher absenteeism (Kremer, Chaudhury, Rogers, Muralidharan & Hammer, 2005), teacher motivation and teacher accountability (Ramachandran, Pal, Jain, Shekhar & Sharma, 2005) instructional time-on-task (Sankar, 2007). This research positioned the school teacher as the chief reason for the declining quality of school education. An anti-teacher discourse and the resultant poor public opinion cast aspersions on the integrity of teachers, leading to loss of public dignity and eventually a marginalisation of the teacher from the processes of education. Examples of teacher marginalisation can be seen both within the state and the private sector of education. Drawing on experiences of teachers' work in select state schools of West Bengal, Majumdar (2011, p. 33) argues how the "diminished professional role of teachers has undermined their agency and ability to practice critical pedagogy for educating the subaltern classes".

The recent Central Board for Secondary Education decision to relieve teachers of the task of setting question papers is a clear indication of marginalising the teacher from processes of education (CBSE, 2010). It takes away from the teacher her right and the capacity to formulate questions - central to the profession of teaching. Huge corporate investments being made to develop self-learning, 'teacher-proof' materials (along with ICT-linked delivery) are being seen by private schools as an opportunity to enhance learning outcomes; cut costs of delivery and hence 'profitability' without having to invest in teacher development. This attitude of resignation towards teachers pervades the school education sector in much of the country – both public and private.

Reflections of the teacher accountability discourse can be seen in policy formulation around the RTE. "Although the RTE Act has several clauses that claim to ensure the provision of elementary education of acceptable quality and inclusivity, its silence on and ambiguity about the provision of professionally qualified school teachers remains discomforting" (Batra, 2009: 127). The Act seeks to ensure teacher accountability, while consciously evading any serious engagement with the professional concerns of teachers.

New formulations for the education and hiring of teachers are likely to exacerbate the problem of providing education of equitable quality. The Teacher Eligibility Test (TET) stipulated as an added qualification via a NCTE Gazette notification (GoI, 2010), conducted by CBSE and state agencies for instance, undermines the validity of the content and orientation of pre-service education of teachers. What remains valid is its qualifying status for taking the TET. This would leave little scope for innovating or developing the need to innovate in processes of teacher preparation. In the long term, it can even lead to a dismantling of institutional structures that prepare teachers for the nation's millions of children². This in turn will create more vacuous spaces waiting to be filled by for-profit agencies for whom education offers the prospects of a new market regime. The courts on the other hand maintain the position that education cannot be a profitable activity – setting the stage for a future confrontation with the executive and for-profit teacher education agencies.

It is evident that while the policy imperative is to bring both the contending streams of discourse into the fold of education, the focus of education amongst some mainstream elites seems to have shifted from developing an active citizenry to creating an underclass of knowledge 'workers' for a 'service economy'. This corporate journey that claims to have begun with philanthropic social responsibility may culminate in education investments for profit-making. The policy-practice interface thus remains purposefully unaddressed as a new set of non-state actors and stakeholders enter into an active engagement with school education in India. This range is wide from political parties and ideologues, university academics (including from overseas institutions) and other intellectuals, members of non-government and voluntary organizations, donors (Indian corporate and international donor agencies) and private sector players. Many of these agencies view education as a key instrument to facilitate economic and social mobility and only in some cases social transformation.

These strikingly different assertions about the role of education reflect different conceptions of society: a society comprising of individuals for whom the imperatives of personal wealth and economic growth are foremost or where individuals manifest greater consciousness of their positions in society and their role in developing social cohesion. Making the poverty-capability link, Sen (2001) helps us to see how social facilities such as basic education are critical in supporting economic opportunities. Positioning Dewey's ideas (1916) in the contemporary global context, scholars have argued how education must be seen as critical in the formation of a 'deliberative contestatory democracy' (Olssen, 2004/2006) that can foster dispositions to enable cohesion between individual and society and the 'disposition to act' to make a difference (Davies, 2006).

This fundamental difference it is argued is glossed over by an educational discourse couched in dualities. Traditional education vs innovative (alternative) education; child and curriculum; pedagogy and curriculum; theory vs practice; reflective practitioner vs technician are dualities³ that figure prominently in the educational discourse. These are actively reinforced and extended by the processes that seek to 'train' teachers. The use of binary oppositions to explain educational phenomena has two serious consequences: first, it marginalises and excludes certain forms of thinking and second, it justifies gaps by rendering them beyond the realm of human control. Scholars have observed how teaching, when viewed from a taxonomic lens does not enable an examination of the relations between different layers of knowledge (Popkewitz, 1992). Each of the crucial elements of a dichotomous discourse thus get circumscribed and become resistant to meaningful

interrogation. The inability to release the practice of education from a dichotomous discourse has led policy makers to focus on the *teacher* as the *object of reform* rather than institutional cultures and provisions that prepare teachers. Nation-wide programmes to universalise elementary education have focused on 'training' teachers to perform and become accountable and not on changing the ways in which teachers are prepared and supported, reminiscent of the Fordist discourse on factory workers in the early 20thcentury.

An entrenched teacher education discourse and practice further accentuates dualistic ways of viewing the problems of education. Classified in mutually exclusive categories it has become immune to interrogation and challenge. Several issues, long debated are now being positioned as 'forced choices' for teacher preparation. These include the conflict between diversification and selectivity of the teacher workforce⁴; private vs public locations as the site for teacher preparation⁵ long duration pre-service teacher education vs short-term measures of in-service training⁶ and the contradictions of simultaneous over-regulation and deregulation of pre-service teacher education⁷. This review paper argues that the tension between policy imperatives and the lived reality of school education cannot be addressed by merely classifying problems of education into dichotomies. What is required is a re-envisioning of this space through a deep interrogation of the dualities posed and the institutional arrangements in which these are reinforced and extended.

Institutional Arrangements and the Socialisation of Teachers

Given this backdrop we can now explore how classroom practice is closely tied to the manner in which teachers learn to engage with teaching as a practical and political activity. This is done by drawing upon theoretical and empirical literature and a mapping of micro processes that various institutional arrangements invoke. These institutional arrangements are probed against the backdrop of a policy discourse that is driven by simultaneous but contradictory persuasions: political and bureaucratic imperatives, and academic judgment. The attempt is to understand how social interactions within teacher education institutions give rise to patterns of engagement in the teaching-learning enterprise, thus shaping pedagogy.

In order to understand how social interactions and patterns of engagement shape pedagogy it is important to examine teacher education and the institutions that deliver them through a social and ideological lens. The implications of this can be fully grasped if we also keep in mind that the evolution of teacher education in India mimicked models of the 'monitorial and pupil teacher systems' prevalent in 20th century Britain and considered appropriate for a large mass of teachers. This approach to the education of Indian school teachers has remained unchanged for half a century in two crucial aspects: the institutionalised intellectual isolation of the school teacher and a circumscribed engagement with pedagogy as mere technique. Each of these is explored below.

It is well known that the isolation of teacher education institutes from centres of research and higher education even within universities makes them insular (Batra, 2005). As a result they operate in closed spaces, intellectually impoverished environments that actively discourage engagement with new ideas and perspectives. It can be argued that teacher education institutions in India

function as exclusive, 'private' spaces akin to that of a 'family'. The use of the metaphor of 'family' is frequently encountered in teacher education organisations to coerce adherence to institutional tradition and norms. For instance, it is customary for students to seek blessings of their teachers through the ritual of touching their feet and to invoke the divine to inaugurate academic events. Elements of feudalism manifest in teacher-student relationships co-exist with the public posture of a secular academic orientation. In many cases this is actively encouraged and even imposed as a 'civilising' mission. In this frame, interactions between teacher educators and student-teachers assume the character of a cultural decree in which the 'elder' patronises, controls and is assumed to have the sanction to exploit. As Bernstein (1990) argues, 'insulation (becomes) the means whereby the cultural is transformed into the natural'. Student voice that may wish to question such practices are either marginalised or actively silenced. Pedagogic approaches such as the practice of internal assessment of student-teachers are used as institutional instruments to further crystallise this patronising culture. With the blurring of boundaries between the institutional ethic and cultural tradition, teacher education institutes operate in a culture of patronage, perpetuating an incestuous environment of learning to be an educator.

The 'institution' of teacher education is thus a 'system' of established and prevalent social rules and conventions that structure social interaction. Rules as argued by Hodgson (2006) are "socially transmitted and customary normative dispositions", while conventions are "particular instances of institutional rules". Dewey (1922) was of the view that institutions work because rules are embedded in shared habits of thought and behaviour. Viewed within this frame, it can be said that Indian teacher education institutions reproduce 'shared habits of thought' through the 'conventions' and the 'rituals' of teacher preparation within a culture of patronage. These rituals are set ways of doing things: from conducting the morning assembly to the prominent display of slogans, icons and 'thought for the day'; developing charts and models to be used as teaching aids and formulating lesson plans within predetermined rigid frameworks. Rituals gradually assume the character of rules, fostering normative⁸ dispositions.

Conventions include the behaviour expected of student-teachers while conducting the morning assembly; the choice of appropriate content for it; how practice teaching is arranged, how student-teachers are expected to dress⁹ and how they conduct themselves in the presence of their teachers and the children they would teach. Many of these are prevalent as unstated rules of teacher education organisations. Student-teachers are constantly reminded of how to be disciplined, punctual, even subservient to authority and moralistic about fulfilling duties. Studies¹⁰ reveal that being "punctual, disciplined, regular and sympathetic" sums up the image of a 'good' teacher for most teacher educators. This is in consonance with the view the bureaucracy has of a school teacher as revealed in the 'general guidelines/regulations for conducting teaching intern-ship for the D.Ed. programme recently issued by the Government of Haryana' (GoH, 2011). Clause 11 of these regulations states what is expected of teachers in explicit terms: "It is required that the interns must wear a decent dress/formal clothes during intern-ship...they must be clean and smart as well as punctual. Their mannerism i.e. appropriate behaviour, including dress, language etc would remain under constant watch by authorities."

For developing teachers, discipline is projected as the key to successful classrooms demonstrated through 'model classes', using techniques of micro-teaching and simulated

classrooms. In simulated classrooms the ideal student is one who pays attention to what the teacher says, does not ask questions even to clarify what is stated in a textbook. Discipline is seen to be important because it is considered to be the most *practical* way of completing expected tasks: 'covering' the syllabus, preparing children for examinations and fulfilling other daily demands of school authorities.

This takes us to the second critical dimension of the prevalent model of teacher preparation where teaching is viewed as 'the wisdom of practice' and pedagogy as mere technique. Several scholars had debated this question in the 1980s (Beyer & Zeichner, 1982; Popkewitz, 1992). This view dominates teacher education institutes in India even today. There is a deep conviction that teachers derive practical knowledge from their practice of teaching. The 'practical' includes elements of craft, art and technique. Many teacher education institutes across the country design student-teachers' work in schools as the 'practice' of delivering lessons despite efforts at redesigning them to incorporate the wider and deeper meanings of school intern-ship. Teaching is established as a technical skill through repeated exercises in micro-teaching either carried out in imaginary classrooms or through the ritual of delivering a minimum number of planned lessons. Teacher educators are more concerned with the number of lessons transacted and supervised than with processes of teaching and learning. This approach is the mainstay of the pre-service education of teachers, overriding other critical concerns that prepare a teacher. This reduces the possibility of exchange in the classroom to the minimum thereby essentialising teacher knowledge to be a set of pre-defined skills.

Attempts are made to make teaching effective by deriving prescriptive principles from psychological theories of learning and instruction set in behaviouristic frames. While progressive discourse associated with the ideas of Gandhi, Tagore, Gijubhai, Dewey, Piaget and Vygotsky assert the agency of the child and may even form a significant part of teacher education courses in India, the nucleus of Indian educational practice revolves around the concept of discipline. The idea of disciplining children also stems from deep-rooted folk conceptions about children and their relationship with adults. Cultural notions associated with child rearing and the education of children permeates the practice of teacher preparation and schooling across the country. These are: the hegemonic relationship between adults and children, often manifest in either a culture of patronage towards the young or control through power and the firm belief that education is the 'effective transmission' of 'given knowledge'. Both these have deep cultural sanction. These cultural notions militate against the emerging Constitutionally mandated child rights framework that seeks to make education of equitable quality, a fundamental right.

The underlying message is that an effective teacher is one who can 'control' children by keeping them silent and attentive in class. The idea of control manifests in the popular conception of education which is to 'socialise' children in 'desirable ways' of 'sitting' in a formal class, 'behaving' in school and 'following instructions' from the teacher. All this is towards the larger aim of building character and morals as the most important goal of education. These popular notions about schooling are in consonance with the culture of teacher education institutions where student-teachers are socialised to be compliant and to exert authority to make children compliant. Most teachers are trained to believe that they need to be judgmental about children and their learning; that they need to be in control.

Within this overpowering conformist framework, the convention of the unconditional acquiescence to the 'guru' forms the core culture of learning in institutes of teacher education in India. Conventions and rituals serve as distinct psychological mechanisms through which such a culture is designed to self-perpetuate. Institutional arrangements thus designed 'train' the teacher to view herself as 'implementing agency' and is suitably rewarded to remain uncritical in attitude and mind. This perhaps explains why the legacy of 'logical positivists remains etched in the practice of many (science) teachers despite attempts to redesign school curricula in the frame of 'reconsidered epistemological basis' (Webb, 2007); and why learning continues to be perceived as 'acquisition of knowledge' rather than as 'understanding and conceptual change'.

It has often been argued that even if teacher education programmes incorporate ways of addressing social diversity and enabling prospective teachers to think and question, these do not translate into real school practices. Such views point to a dis-juncture between the conceived idea of a teacher and the institutionalised preparation of teachers. Empirical evidence, including personnel narratives have demonstrated the possibility of developing critical teacher practitioners who create radically different classroom experiences (Cochran-Smith & Zeichner, 2005) and democratic schools (Apple & Beane, 2007). In the more recent context of a global economic crisis, Apple (2011) asserts how important it is for critical educators to keep alive the multiple critical traditions in teacher education and the larger field of education. In order to understand this deeper, it is necessary to further problematise the dominant practice and discourse of teacher education, in particular the dualities referred to earlier. Some of these are examined below with an attempt to delineate contradictions and enable the recognition of spaces for possible action and change.

Dualities in the Teacher Education Discourse

The significance of having sound subject knowledge has often been debated against the essentiality of pedagogic skills in the teaching enterprise. This led to one of the most fundamental reforms in UK in the 1980s, where attempts were made to reconstruct the nature of teachers' knowledge in order to enhance the quality of teaching. Researchers studied processes by which teachers select and represent aspects of a knowledge domain to students. The subject-specific knowledge articulated while teaching came to be known as pedagogical content knowledge (Shulman, 1986). The understanding that pedagogical content knowledge is central to teachers' knowledge came to be seen as the key idea around which the education of teachers could be designed. This appears to have been based on two erroneous assumptions: first, that teachers' depth of subject knowledge has little connection with learning to teach; second, that all teachers have adequate understanding of the content and modes of enquiry of a subject domain which helps them to develop pedagogical content knowledge. Popkewitz (1992) pointed at this while examining key problems of teacher education. In his view valuing teachers' practical knowledge (including pedagogical content knowledge) as central to teacher preparation leads to the denial of the importance of systematic theoretical reflection.

A significant reason for this misjudgement is perhaps rooted in yet another much widely held view of teaching. It is strongly believed that the 'know-how' of teaching is rooted in psychological theory of individual learning with an exclusive emphasis on cognitive processes. Central to this

frame are ideas of the universal construct of learning and the learner; and classroom practice as application of theory. It is perhaps for this reason that attempts to link the socio-cultural and historical contexts of teachers' knowledge and to comprehend teaching as social practice are rarely witnessed. This also means that the practice of education has remained an unexplored field for developing pedagogical theory within a social frame. Curriculum studies of the late 1960s and early 1970s made attempts to interface foundational disciplines with the practice of education. Sociologists' framing of school knowledge as an expression of power relations (Young, 1971) led educators to theorise about the impact of school curriculum in maintaining status quo. Bernstein's (1990) construction of the notion of pedagogy as a relay for relations of class, gender, religion and power relations remains a powerful theorisation of the pedagogical within a sociological frame.

However, mainstream psychology with a much older engagement with concepts of learning and the psychometric tradition assumed an overarching influence on aspects of curriculum transaction and learning. This happened through the customary rituals of 'training' teachers. Even within psychological theorisation, ideas that fitted well with a positivist orientation gained greater acceptability. For instance, the computational model of the learner's mind is considered to be more suitable because it is seen to provide a practical frame for the teacher. This is so, despite a significant body of research that has established the situated nature of cognition and learning in social and cultural practice (Lave & Wenger, 1991; Rogoff & Lave, 1984). This is one example of the unquestioning ease with which contradictory ideas co-exist within the teacher education discourse. The important question here is which of these ideas gain more currency and are considered valid knowledge for the preparation of teachers and why? While one set of ideas form the core of educational psychology, those emanating from cross-cultural research are considered less relevant to the practice of teaching. Empirical research (Balagopalan, 2002; Saraswathi, 1999, 2003; Vasantha, 2004) within the Indian context on constructs of socialization, gender, language, learning and cognition that have a direct bearing on teaching and learning are typically excluded from the readings and classroom discourse of pre-service programmes. Teacher education courses have situated the pedagogic preparation of teachers within the frame of educational psychology; peripheralising constructs of the specific and the contextualised.

The perceived appropriateness of educational psychology as a foundational discipline for the education of teachers led to a major shift from the earlier focus on the notion of a 'child' to the notion of a 'learner'. This shift appears to have further distanced the teacher from the child and her context. This means that teachers are engaged with questions of teaching and learning without context. Even though Vygotskian ideas, rediscovered by western educators led to view teaching-learning in a socio-constructivist framework, these failed to penetrate the classrooms of pre-service teacher education in India. Thus knowledge for developing teachers continues to be ahistorical and universalistic. This steps around the contradictions of the dualist dilemmas by forming a fit between the dominant notion of education as a neutral project and pedagogy as mere technique, now enhanced by advanced education technology.

The hiatus between educational studies as a field of academic enquiry and the practice of teacher education further explains why the discourse of teacher education remains circumscribed to dualistic thinking fostering deep conceptual disconnects. This can be traced to the long held view that education is a field subject and not a basic discipline (Peters, 1963 cited in McCulloch,

2002). While individual disciplines have been trying to create relevance for the practicing teacher, the practice of education remains an unexplored field for developing pedagogical theory as a result of its disengagement with activities of knowledge generation. It is important to view this hiatus as rooted in structural arrangements rather than merely knowledge related.

The institutional cultures of pre-service teacher education in India are also a consequence of their position in a system of higher education. The bulk of secondary teacher education institutes offering B.Ed. are outside university campuses. Elementary teacher education institutes offering D.Ed. are not linked to universities. As indicated earlier teacher education institutes function as closed spaces with the sole mandate of 'training' teachers. This precludes the participation of young people aspiring to engage with issues of education via post-graduate study and research. The only route available to do so systemically is via educating oneself to be a teacher. Insular positioning of the pursuit of education within Indian universities thus creates a complex web of hierarchies, maintaining divisions between academic engagement and the practice of education, another duality embedded in the structural provisioning of teacher preparation.

The tension between subject matter knowledge and pedagogy creates a duality that disallows deeper engagement with questions of school knowledge. Most teacher education programmes (such as the B.Ed. and D.Ed., except the B.El.Ed.) do not engage with subject knowledge. It is assumed that a command over the subject has been achieved as a result of general education and that textbook knowledge is legitimate and sufficient. This creates a false acceptance of the unproblematised conception of school knowledge. The contested terrain of formal knowledge, explored by sociologists necessitates an engagement with the epistemological underpinnings of school subject-matter. However, this is consciously left out of teacher education programmes. As a result pedagogy is viewed as mere psychological technique and teaching as psychological strategy. An exploration of how a layered understanding of subject knowledge frames pedagogic encounters and influences learning rarely enters into the process of preparing teachers. Curriculum studies could offer sound scaffolding for the process of teacher development given the lack of a formal epistemological underpinning in the training of teachers. This too is difficult as dominant models of teacher education (B.Ed./D.Ed.) do not engage students with concerns of the school curriculum either in the theory or practice of teaching. Cross-national appraisals (Sikula et al., 1996) of teacher education programmes observe unsurprisingly that 'teachers have few opportunities in teacher education programmes to develop connected understanding of subject matter with pedagogy'.

Questions of what knowledge is; its relationship with power; why and how knowledge is selected and presented; how power equations based on gender, caste, religion and language operate in educational practice and are reinforced, extended or challenged need to form the critical core of the preparation of teachers in India. Instead, what permeates the curriculum of pre-service teacher education is a fragmented knowledge of psychological development and learning, relationship between theory and practice and social-cultural influences. International scholars have blamed the "new policy repertoires (that) have played a significant part in a de-theorizing project". The virtual disappearance of sociological theory (Acker, in Coffey, 2001) and philosophy (Carr, 2003) from teacher education has been combined with an increasingly centralized curriculum for the training of teachers. The result is the continued dominance of psychological theory and an entrenching of

the belief that teacher preparation is about developing repertoire of skills. Another decisive way in which classical psychological theory creates the ethos of 'training' teachers is its focus on the individual as a learner and teacher, discussed below.

The 'Individual Narrative' and its Potential Consequences

Ladson-Billings (2006) observes how educational psychology as a foundational discipline has created the 'individual narrative' as a dominant presence in the teacher education discourse. Poulson, 2001 (cited in Webb, 2007) argues how teachers' pedagogic knowledge with an emphasis on cognitive processes has resulted in taking the individual as the unit of analysis. Evidence-based focus on teachers' tacit knowledge has also led to an emphasis on the personal dimensions of teacher-thinking and knowing particularly the notion of teachers' voice (Clandinin & Connelly, 1987; Elbaz, 1991; Polanyi, 1966 cited in Popkewitz, 1992).

While teacher voice and agency are significant indicators of an empowered teaching community, it would be erroneous to view teaching as a 'personal' dimension of an individual teacher. In viewing teaching as a personal activity, teachers' knowledge is interpreted to mean 'personal knowledge' that teachers have of their personal circumstances. It has already been pointed out that there is a tendency to view teachers' knowledge as distinct from and superior to academic knowledge. Some have even argued that the role of foundation disciplines is of little practical value in preparing teachers (Smith, 1980 cited in Beyer & Zeichner, 1982). Countering these claims, Beyer and Zeichner (1982) analysed how the individualistic and vocational orientation of teacher education programmes position themselves as apolitical and non-ideological; but are in effect spaces of conservative forces that contribute towards maintaining status-quo in the system of schooling.

The individualistic orientation in preparing teachers has significant implications for how teachers assume their role vis-a-vis children and their learning. Severed from their contexts, children are viewed as dull or bright, lazy or hard working, obedient or defiant. Teachers are quick in making a 'psychological diagnosis' about students who struggle to learn while coping with alienating aspects of most school environments in India. This may include struggling with the language of the school which in many cases is not the same as the child's home language. Concepts of 'slow learners' and 'low IQ', rampantly used in contemporary Indian classrooms¹¹ are 'naturalised' in the amalgamation of a folk psychological discourse and the entrenched 'practical' discourse of preservice teacher education. High 'scholastic achievers' are thought to be superior in intelligence, values and adherence to normative expectations of society. Low achievers are typically perceived to be from 'backgrounds' that contribute to 'low intelligence' and lack of 'hard work' required for being successful in school. These are not cultural or social prejudices alone, but are reinforced and extended through the behaviourist frames of teacher education programmes. Both the learner and the teacher develop the conviction that to be effective requires individual effort and individual competence.

What is missing from this 'individual narrative' is the social dimension of teaching and learning and the understanding that teaching is social practice. The individualistic orientation, embedded in the institutional culture is reinforced by the dominant discourse of educational psychology.

Socio-psychological engagement leading to the deconstruction of universal concepts of children's development (Burman, 1994/2008) or feminists' perspectives on knowledge and pedagogy (Weiner, 2006) are deliberately kept marginal lest they shake the 'neutral' foundations of the practice of teaching. The overarching and oversimplified psychological frame forms the dominant sub-culture of teacher preparation. This maintains the false neutrality and 'apolitical posture' of teacher education programmes. Thus teachers never learn to locate education in the larger perspective of the socio-economic and cultural context. Hence, they never feel the need to examine the social and political factors that influence processes of schooling. For them education remains a routinised classroom activity, the holding of examinations where the onus of learning rests with learners. Students learn that school education is about matters other than lived experience. Hence, they are unable to problematise social realities they may wish to change.

A corollary of the individual narrative is a seeding of the false belief that the onus and possibility of change lies only with the individual. Hence, the policy focus on reforming the *individual teacher* and not the institutional culture that prepares teachers. Reforming the teacher without giving her agency can only lead to a mechanical transmission of education. If however, teachers are given agency, teaching-learning processes are likely to change, creating criticality of thought and a democratic conception of learning. This is possible only through re-envisioning spaces and the pedagogic engagement of developing teachers. The plural fabric of Indian society provides a fertile possibility for institutionalizing learning as social activity and teaching as social practice giving fillip to the ongoing process of deepening democracy.

Conclusion

India has taken several steps since the 1990s to reform the school education and teacher education systems via the enactment of a central legislation of the right to education, investments in education and progressive curriculum reform. Tens of millions of new learners are being educated via the school system. Contemporary curriculum (NCERT - NCF, 2005; NCFTE, 2009) documents position teaching as social practice and school education as an enterprise in developing a more cohesive and just society. However, pressures to recruit a large teaching workforce to meet RTE obligations have led the Indian state to once again seek comfort in convenient solutions that 'equip' teachers to 'deliver' education sans theory and meaningful 'learning experiences'. While state instruments are being used to fulfill the Constitutional obligation of providing free and compulsory education, over 80 percent teacher education institutes are in the poorly regulated private sector. These have poor capacities, limited investments, no linkage with universities and are grounded in a dualistic educational discourse.

This policy contradiction is likely to create a dual system of education: one leading to a set of processes and outcomes that would produce masses of knowledge workers; the other an elite citizenry of critical thinkers. This would perpetuate existing hierarchies in a new knowledge-based society that India aspires to become. The true power of a knowledge society would be based on having a large mass of critical thinkers who can innovate, have agency to address a multitude of socio-political, economic and environmental challenges the country and their communities face.

Classroom practice and hence learning is being thus shaped by the sub-culture and social ethos of teacher education as much as the neo-liberal frame within which teachers' work and worth is viewed and judged. There appears to be a consonance and hence a logic of delivery between a neo-liberal framework, focus on the individual, and the behaviouristic outcome-based model of education. The 'public belittling of theory' in the preparation of teachers in favour of the 'practical' fits the agenda of letting the markets dictate the purpose of education - sans people and society. The implications of this on India's Constitutional values of equity, social justice and fraternity could be devastating in the early and middle 21^{st} century.

The paper brings to light the tenuous epistemological frame that currently structures the experiences of those preparing to be teachers. It argues for the need to engage with more robust epistemological underpinnings in designing teacher education programmes. This would include engaging with debates about knowledge and curriculum; dialectics of theory and experience and the deconstruction of universalistic and individualistic notions of learning and development. This is possible only by re-imagining spaces and the pedagogic engagement of developing teachers. This will begin with a deep interrogation of the dualistic discourse and circumscribed institutional arrangements. A new pedagogic imagination can help institutionalise learning as social activity and teaching as social practice, giving fillip to the ongoing process of deepening democracy in a plural India.

Notes

- 1. Examples of international testing include the Programme in International Student Assessment (PISA) and Progress in International Reading Literacy Study (PIRLS) and of national testing include, Large Scale Assessment by Education Initiatives and Assessment Survey Evaluation Reports of ASER Surveys by Pratham.
- 2. Eighty percent of India's teacher education institutes are in the private sector run by a poorly regulated private sector as the functioning of NCTE continues to be in question. It must also be noted that the state structure for elementary teacher education, apart from being marginal in volume, is yet to become part of the state system of education.
- 3. The reduction of complex educational debates to mere dualities say between the child and the curriculum has been the subject of analysis in writings of Dewey (1938). More recently, Robin Alexander (2006) has addressed the issue of dichotomous notions within the frame of cross-cultural research.
- 4. Several diverse measures are being adopted to create and select teachers, including the Teacher Eligibility Test; preparing teachers through programmes such as Teach for India.
- 5. While the GoI is ceased of the rapid proliferation of sub-standard teacher education programmes in the private sector, the fate of DIETs is uncertain given their continued status under Plan funds rather than state funds.
- 6. Central investment towards teacher preparation through the SSA has only been available for teachers in-service.

- Debates on repealing the NCTE Act and deregulating the sector of teacher education are on, while a Bill awaits Parliament approval for a National Commission for Higher Education and Research, as a new regulator authority that would also subsume NCTE.
- 8. Although scholars have distinguished between rules and norms, for the purpose of the argument posed in this paper we will consider them synonymous.
- 9. The 'essentialist' image of an effective teacher is a sustained characteristic of reforms in preservice teacher education in Haryana (GoH, 2011), even where the curriculum is deliberative in breaking it. Kishore Darak has discussed the recent notification of a compulsory dress code for school teachers in select districts of Maharashtra as related to the idea of discipline and the gendered construction of teachers.
- 10. These observations are from an on-going study that examines the discourse of teacher educators across different states of India.
- Such orientations have been fostered by programmatic measures and discourse on 'hard spots' in the learning of mathematics and other curriculum areas during the World Bank led DPEP across India.

References

- Alexander, R. J. (2006). Dichotomous pedagogies and the promise of cross-cultural comparison. In H., Lauder, P., Brown, J. A., Dillabough & A. H., Halsey (Eds.). *Education: Globalisation and social change*. (pp 722-733). Oxford: Oxford University Press
- Apple, M. W. (2011). Global Crises, Social Justice, and Teacher Education. *Journal of Teacher Education*, 62 (2) 222-234.
- Apple, M. W., & Beane, J.A. (Eds.) (2007). Democratic schools: Lessons in powerful education. Porsmouth: Heinemann.
- Apple, M. (Ed.) (1982). Cultural and economic reproduction in education. London: Routledge.
- Arnot, M., & Reay, D. (2006). The Framing of performance pedagogies: Pupil perspectives on the control of school knowledge and its acquisition. In H., Lauder, P., Brown, J. A., Dillabough & A. H., Halsey (Eds.), *Education, globalisation and social change* (pp 766-778). OUP: Oxford.
- Balagopalan, S. (2002). Constructing indigenous childhoods: Colonialism, vocational education and the working child. *Childhood*, 9 (1), 19-34.
- Ball, S. J. (1993). Education markets, choice and social class: The market as a class strategy in the UK & USA. *British Journal of Sociology of Education*, 14 (1), 3-19.
- Batra, P. (2005). Voice and agency of teachers: A missing link in the National Curriculum Framework. *Economic and Political Weekly, Vol XL* (40), 4347-4356.
- Batra, P. (2009). Teacher empowerment: The education entitlement-social transformation traverse. *Contemporary Education Dialogue*, 6 (2), 121-156.
- Bernstein, B.(1990). Class, codes and control, Vol. Iv: The structuring of pedagogic discourse. London: Routledge.

Beyer, L. E. & Zeichner, K.M. (1982). Teacher training and educational foundations: A plea for discontent. *Journal of Teacher Education*, *xxxiii*(3), 8-23.

- Bourdieu, P., & Passerson, J.C. (1977). Reproduction in education and society. London: Sage Publications.
- Burman, E. (1994/2008). *Deconstructing developmental psychology* (2nd ed.). London: Routledge.
- CBSE (Central Board of Secondary Education). (2010). *Clarifications about ongoing examination reforms for the session 2010-2011*, Circular 43/2010 and Circular 44/2010, dated 2 August 2010. www. cbse.nic.in accessed on 12 November 2011.
- Carr, D. (2003). *Making sense of education: An introduction to the philosophy and theory of education and teaching*. New York: Routledge Falmer.
- Carr, W. (Ed.). (2005). *The Routledge-Falmer reader in philosophy of education*. London & New York: Routledge.
- Clandinin D. J., & Connelly, F.M. (1987). Teachers' personal knowledge: What counts as personal in studies of the personal. *Journal of Curriculum Studies*, 17, 487-500.
- Cochran-Smith, M., & Fries K. (2005). Researching teacher education in changing times: Politics and paradigms. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: Report of the ARERA panel on research and teacher education* (pp. 69-110). Mahwah, NJ: Erlbaum.
- Cochran-Smith, M., & K. Zeichner. (2005). Studying teacher education: Report of the ARERA panel on research and teacher education. Mahwah, NJ: Erlbaum.
- Coffey, A. (2001). Education and social change. Buckingham: Open University Press.
- Davies, L. (2006). Education for positive conflict and interruptive democracy. In H., Lauder, P., Brown, J. A., Dillabough & A. H., Halsey (Eds.). *Education, globalisation and social change*. OUP: Oxford.
- Dewey, J. (1900). The school and society. Chicago: The University of Chicago Press.
- Dewey, J. (1916). Democracy and education. New York: Macmillan.
- Dewey, J. (1922). Human nature and conduct: An introduction to social psychology. New York: Holt.
- Dewey, J. (1938). Experience and education. New York: Macmillan.
- Elbaz, F. (1991). Research on teachers' knowledge. Journal of Curriculum Studies, 23(1), 1-19.
- GoH (Government of Haryana). (2011). *General guidelines/regulations for conducting teaching internship for D.Ed. course in Haryana*. Gurgaon: SCERT, Haryana.
- GoI (Government of India). (2010). National council for teacher education notification: Minimum qualifications to be eligible for appointment as teacher in class I to VIII, The Gazette of India, August 25, 2010, New Delhi.
- GoI (Government of India). (2009). *Right of children to free and compulsory education Act, 2009*. The Gazette of India, August 27, 2009, New Delhi.
- GoI (Government of India). (1986). National Policy on Education (NPE, 1986). New Delhi: MHRD.
- GoI (Government of India). (1966). Report of the education commission (1964-66): Education and national development. New Delhi: Ministry of Education.
- Hodgson, G. M. (2006). What are Institutions? Journal of Economic Issues, Vol. XL, (1), 1-25.

- Kremer, M., Chaudhury, N., Rogers, F.H., Muralidharan, K., & Hammer, J. (2005). Teacher absence in India: A snapshot. *Journal of the European Economic Association*, *3* (2-3), 658-667.
- Ladson-Billings, G. (2006). It's not the culture of poverty, it's the poverty of culture: The problem with teacher education. *Anthropology & Education Quarterly*, 37 (2), 104-109.
- Lauder, H., Brown, P., Dillabough, J. A., & Halsey, A. H. (Eds.). (2006). *Education, globalisation and social change*. Oxford: Oxford University Press.
- Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York: Cambridge University Press.
- Mahony, P. (1997). Talking heads: A feminist perspective on public sector reform in teacher education. *Discourse*, 18(1), 87-102.
- Majumdar, M. (2011). Politicians, civil servants or professionals? Teachers' voices on their work and worth. *Contemporary Education Dialogue*, 8(1), 33-65.
- McCulloch, G. (2002). Disciplines contributing to education? Educational studies and the disciplines. *British Journal of Educational studies*, *50* (1), 100-119.
- Middleton, S. (1995). Doing feminist educational theory: A post-modernist perspective. *Gender and Education*, 7(1), 87-100.
- Moore, R. & Muller, J. (1999). The discourse of 'voice' and the problem of knowledge and identity in the sociology of education. *British Journal of Sociology of Education*, 20(2), 189-206.
- NCERT (National Council for Educational Research and Training. (2005). *National Curriculum Framework*, 2005. New Delhi: NCERT.
- NCTE (National Council for Teacher Education, 2009) *National Curriculum Framework for Teacher Education: Towards a Humane and Professional Teacher*, (NCFTE). New Delhi: NCTE.
- Olsen, M. (2004/2006). Neoliberalisation, globalisation, democracy: Challenges for education. In H., Lauder, P., Brown, J. A., Dillabough & A. H., Halsey (Eds.). *Education, globalisation and social change*. Oxford: Oxford University Press.
- Popkewitz, T. S. (1992). Book review article. [Review of the book *Handbook of research in teacher education*]. *Journal of Teacher Education*, 43 (1), pp. 63-75.
- Ramachandran, V., Pal, M., Jain, S., Shekhar, S., & Sharma, J. (2005). *Teacher motivation in India*. New Delhi: Educational Resource Unit.
- Rogoff, B., & Lave, J. (Eds.).(1984). *Everyday cognition: Development in social context*. Cambridge: Harvard University Press.
- Sankar D. (2007). *Unraveling teacher's 'Time on task': Evidence from three Indian states*. New Delhi: The World Bank Unpublished manuscript.
- Saraswathi, T. S. (Ed.). (1999). Culture, socialization and human development: Theory, research and applications in India. New Delhi: Sage
- Saraswathi, T. S. (Ed.). (2003). Cross-cultural perspectives in human development. New Delhi: Sage
- Sen, A. (2001). *Development as freedom*. Oxford: Oxford University Press.
- Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15 (2), 4-14.

Sikula, J., Buttery, T. & Guyton, E. (Eds.). (1996). *Handbook of research on teacher education* (2nd ed.). New York: Macmillan.

- Soudien, C. (2011). Building quality in education: Are international standards helpful? *Contemporary Education Dialogue*, 8(2), 183–201.
- Thrupp, M. (1999). Schools making a difference: Let's be realistic! School mix, school effectiveness and the social limits of reform. Buckingham: Open University.
- Vasanta, D. (2004). Childhood, work and schooling: Some reflections. Contemporary Education Dialogue, 2(1), 5-29.
- Webb, P. (2007). Teachers' understanding of the nature of science. In B. Choksi & C. Natarajan (Eds.), The epiSTEME Reviews Vol. 2, Research Trends in Science, Technology and Mathematics Education. New Delhi: Macmillan India.
- Weiner, G. (2006). Out of the ruins: Feminist pedagogy in recovery. In C. Skelton, B. Francis & L. Smulyan (Eds.), *The SAGE handbook of gender and education* (pp.79-92). London: Sage Publications,
- Weiner, G. (1994). Feminisms in education: An introduction. Buckingham: Open University Press.
- Walkerdine, V., & Ringrose, J. (2006). Femininities: Reclassifying upward mobility and the neo-liberal subject. In C. Skelton, B. Francis & L. Smulyan (Eds.), *The SAGE Handbook of Gender and Education*. Thousand Oaks, CA: Sage.
- Young, M. F. D. (Ed.). (1971). Knowledge and control: New directions for the sociology of education. London: Collier MacMillan.

DISCUSSION

- Chair- S.C. Agarkar, Homi Bhabha Centre for Science Education, Mumbai, India
- Q1: I would like to share a concern about those teachers who do not teach. This is based on an incident which I had with teachers during an informal trip. I realised that the teachers had a very different mental set. When I asked what changes they would make if given the power to change school education, one of the teachers said that if he was able to understand students' background then he would be better able to make good decisions. But often there is no space; teachers find themselves low in the hierarchy of school education and are unable to effect any changes on their own.
- **PB:** A very quick comment about what you are indicating is that there is a genuine lack of space for teachers to reflect, understand and develop professionally.
- Q2: My concern is about how to attract young people and current graduates towards teacher education or the teaching profession. In urban and even in rural areas most of them are attracted towards computer science education. At the school level we do not have any opportunities to place our views or ideas. If we examine the B. Ed. syllabus, adopted by all state governments, even though the course is of one year duration, the same is conducted within a period of eight months. What are your suggestions?

- The focus of the current talk was to look at what is happening within teacher education pro-PB: grammes. However, there are several political and economic frames within which we need to examine questions of attracting talent into teacher education. I think it is a fact that India as a state seems to have resigned from making any major investments in teachers, which is worrying. I think the question of attracting talent is related to the economics of how teaching as a profession is conducted, nurtured and framed, and given the kind of position it deserves in society. These are connected questions and policy makers seem to have concluded that even though nationwide programmes, such as the District Primary Education Program (DPEP) and Sarva Shiksha Abhiyan (SSA), invested huge amounts towards the in-service training of teachers, very little was achieved. Therefore there is a belief that there is no point in investing in teachers and we need to develop radical curricula and textbooks. But the point is that the teacher is the key in the whole process of teaching and learning. Until we accept the fact that we need to intervene academically in terms of making teacher education programmes meaningful; politically and economically by way of prioritising investments in teacher education, we will not be able to arrive at an understanding and a more sustainable solution to the problems of education. Intervention will need to be handled in a more convergent manner rather than focusing only on what is happening within teacher education.
- I want to pick up on one of the points which you raised which you called the hiatus between **O3**: research and practice and may be ask you to comment further on that. I think it's a more general problem of educational research and it's disjuncture/disconnect from theory, policy and practice. You pick up the point of the individual but it also goes to the institutional and the national. And I think the way to address the problem at first instance will be to question the kinds of research we do. We do research that does not necessarily inform policy. We do research and research is different from practice and it requires dissemination and translation into practice. So research doesn't automatically become practice and I think we have not paid enough attention. If I take the context of South Africa and listening to you seems that there is a broader issue of how research can and should inform these different domains. So as a result of our lack as educational researchers what is taking that space are these big evaluations and national tests. Therefore, for example, when TIMMS and ESA in South Africa appear in the newspapers, all the policy makers refer to them and then they act in simplistic ways. So I think we as educational researchers have not paid enough attention to translate and make the discourse of research available to practitioners and policy makers.
- **PB:** I couldn't agree with you more. In fact I am glad that you brought this issue up. In the Indian context we don't only neglect our responsibility of engaging in educational research but as I said earlier it is also a structural issue. We do not have institutes of educational research in our country, we must remember that and that is what has led to a vacuum. Those who attempt to fill this vacuum are those equipped with skills of research that fit the 'rapid rural appraisal' kind of frame. Therefore impressionistic research in education is now coming in a big way which is creating problems because it is not really informing us in the way that it should, that is one issue. The other is, I wouldn't say that we need to do research at some level to be able to inform the teacher. I think the teacher has to be a partner in this research and I think the question of the right to research belongs to the teacher as much as to the academicians in universities. It is important that we look at school practices, classroom practices as arenas of

developing and generating knowledge which will then help us to look at pedagogic practices in a more nuanced manner rather than just the application of theory, which could be problematic.

- Q4: My question fits in very well with the previous comment. I am looking at it from the point of teacher education institutes and also recalling Prof. Barlex's remark about teachers who teach the nature of science: do they listen to the teacher or do they listen to Longino. From the point of view of teacher education colleges, where is this body of knowledge that they draw upon; that is, the integration of the academic discourses within the sciences and the social sciences. At the Homi Bhabha Centre for Science Education, we find ourselves perched precariously between science on one side and social science on the other side. We are continuously trying to broaden this area where the two can have a meaningful dialogue. The epiSTEME conferences are one forum that we have and I think we need to broaden this space where there is dialogue between science and social science and then it is something that the colleges of education can draw upon, something where educational research can flourish and the teacher educators know where this space is.
- PB: Absolutely. The dichotomy between science and social sciences is not only in terms of knowledge domains that are to be taught in school but it is in terms of an overarching frame within which teachers are being prepared and educated. I think we need to bring that into the discourse because teacher education programmes in the country, (Homi Bhabha Centre for Science Education is really quite an exception) do not acknowledge the social science frame as an important frame within which education needs to be situated. In fact the science teachers would be very reluctant to even come for a lecture on the sociology of knowledge because they think it is not really their concern. So there is a certain kind of culture that we have perpetuated through the way we have looked at the preparation of the teachers. It is a hard task to break it, but I completely agree with you that we need to do just that.
- **Q5:** We have B.Ed., M.Ed., Ph.D., all within the university and our departments. We find that students are mature while doing B. Ed., they are masters in their own discipline so we find it very interesting to teach them. We also find that students are very eager to know, and they ask a lot on how to implement those issues that they have learnt during their training. But when they go to teach, there are other issues. As most of the teachers come from rural schools, there are other infrastructural and political problems. It is a kind of psychological barrier for the teachers. The school teachers do not have the liberty to transform actually. So in this case what can we do?
- **PB:** First we need to stop looking at school teachers as implementing agency. It is important for us to look at school teachers as thinking people. This is what we are not doing at all.
- **Q6:** In school education as you pointed out rightly there are many components to teaching, content, pedagogy, psychology, etc. When it comes to higher education, people seem to think that the only necessary component of any teaching practice is content. The only thing that exists is the refresher course that is a lop-sided treatment of subject content. We don't think that the other components are necessary in higher education. I personally teach and I know that other things are very vital. I think the other components which are there are in teacher

training need to percolate to higher education. I think that's a major drawback. What is your comment on that?

- **PB:** Well, I agree with you that pedagogy is currently not a concern in higher education. We should look at pedagogic issues and look at learning differently. But I am very happy that there is no teacher training for teachers in higher education. The issue is to think of structures and mechanisms that can create platforms and forums for teachers to interact with each other professionally. I think that as a culture is not part of our universities. So instead of refresher courses, one can have forums of a more creative kind, where there are more faculty led initiatives. This may be a tall order but I think we need to think along those creative lines rather than training.
- Q7: One famous writer, Hamilton looked at education in terms of teaching and learning versus the curriculum aspect as to what education is about. I was interested in terms of looking at teaching we could look at educational philosophy, nature of learner, teaching environment, teacher assessment, and teaching method. As a visitor, I do not know much about the educational practices in India. I would like to learn and know about the 'Right to Education'. I would like to know about educational philosophy in India through readings or policy documents.
- **PB:** Policy documents in India may not be a very adequate source for knowing philosophical thinking about education. However, there are several readings related to various thinkers of education in India.
- **Q8:** We have been interacting with teachers and school systems more by way of in-service intervention. And the quite remarkable thing that strikes one is that after the NCF (2005) there is a tremendous shake up in the system. Large school systems are issuing circulars saying that teachers should change the methodology of teaching to align it more with the child friendly constructivist frame of the NCF. Constructivism is a big word, so this seems to have created a space for reflection and change. I mean it may not be the best way things will happen but it has certainly created a tremendous vacuum and space which needs to be filled because every organisation is looking for ideas about how actually this change can be brought about. So I would like to raise this question of how we should respond as a community of educationists and researchers to this really remarkable point of time that we are in.
- **PB:** I am not sure whether I can offer any specific, concrete mechanisms for addressing this issue. A lot of the curricular discourse in India has actually also emerged from within the NGO sector. It is now being positioned as mainstream discourse and as opportunities in terms of the NCF. Thus in a sense the NGO sector has brought into focus issues of school curriculum in juxtaposition with the development of teachers. And my suggestion would be to create spaces and forums for developing teacher collectives. I do not think that we can continue to be content with sitting in institutes such as the Homi Bhabha Centre for Science Education (HBCSE) or Delhi University or any other research/higher education institute and think that we can linearly reach out to the teacher community. I think we will need to think of concrete ways of creating communities of teachers and here I am not referring to communities of practice that is something we should elevate ourselves to. The point is to create collectives

first. Currently, new technologies and ICTs are being offered as the way forward. The Indira Gandhi National Open University for example is thinking of how to train the required 5 lakh teachers in the country through the distance mode. I do not think that will help us to use this opportunity you are talking about. Therefore, one will have to think of how to create collectives in a more decentralised manner, where institutes such as the HBCSE can play a lead role in creating such mechanisms.

- Q9: You started your talk by saying that education and teacher education is political. If one starts from that premise, it's only so far your state will go, it has its own ideological framework and economical framework etc. If we are looking at people concerned with education should we also not look at institutions which are built outside the same systems? What about teacher unions, for example, in all our discussions they don't form a part. The moment we talk about outside state system, first thing that comes to our mind is NGOs but then what about teacher unions, what about teacher's groups.
- **PB:** I think there is a big lacuna in terms of teacher collectives. We do not have teacher collectives, but we do have teacher unions. Wherever they are we know that there has been a politicisation of a different kind. So that is an issue that needs to be tackled differently. But I agree with you we need to create space outside the state, in terms of research and engagement in professional activity. And I think what we need is to create a discourse around this. At the moment we do not seem to have a discourse on teacher development and education. I do not think there is enough engagement on issues of teacher education. There is some stray writing from within the academia but we do not have a developed discourse mainly because forums of engagement are lacking. I also think independent thinking and research is extremely important to develop such a discourse.
- Q10: How can one ensure that the actor researcher and teacher researcher have an equal voice? It is so easy for the academicians because they are qualified researchers who dominate the agenda in the classroom. Do you have any comments on this?
- PB: There are plenty of challenges, but the point is that this divide between the academia and researchers, between teacher educators and teacher practitioners is what I am trying to say needs to be addressed structurally. It is not possible to address it attitudinally. We need to cognize the fact that institutional structures create certain cultures, and if we need to swim against the current we will need to break those structures and create new ones. We have the opportunity today. We are at the threshold of a very radical school curriculum and a very radical teacher education curriculum framework and a path that shows us how to re-design teacher education programmes. We have the experience of a four year integrated programme in university colleges which has been able to demonstrate the robustness of some of these ideas. I think that is where we need to move in terms of creating structures. The teacher practitioner has to have the first right to research that informs educational theory. We need to provide in-service support to teachers through research programmes. Research then becomes a learning framework for teachers' professional development - that can replace current inservice programmes that merely hold teachers captive to a discourse that is largely disconnected from classroom realities and practice.