

The Invisible Barriers to India's Educational Reforms

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Why have three decades of pedagogical reforms failed to translate the learner-centred vision of national documents into reality? This paper presents empirical research that corroborates what Indian educationists are increasingly noting, that there are entrenched cultural mindsets restricting a shift in India's education system. The research finds three central worldview beliefs widespread among government teachers that contradict the assumptions of policy documents and in fact of the Constitution: a belief in inequality vs equality, knowledge transmission vs liberty of thought, and purpose as individual advancement vs fraternity. In turn, teachers simply reflect the worldviews they themselves experience, creating a vicious cycle.

For over three decades, India has had a dream—to provide learner-centred inclusive education for every child—that continues to remain just that, a dream.

How is this so, when the vision has reached our policies, curricula, government schemes, and even training programmes? From as long ago as 1986, we have had a national education policy that mandates that every teacher provide “a child-centred and activity-based process of learning” (GoI 1992). This was reiterated two decades later by the National Curriculum Framework (NCF), which emphasised the importance of giving “primacy to children's experiences, their voices, and their active participation” (NCF 2005: 13). Four years later, this vision became law with the Right to Education (RTE) Act, 2009, which, in its Section 29.2, prescribes “learning through activities, discovery and exploration” in an environment “free from fear, trauma and anxiety” and “guided by Constitutional values.” Meanwhile, since 2001, the government has spent crores under the Sarva Shiksha Abhiyan (SSA) programme to train teachers every year to implement this vision.

Still, the vision has failed to reach our classrooms. Yes, there are more schools, students, and teachers. But, the essential nature of the transactions that take place inside classrooms has not changed significantly. After a decade of SSA training programmes, the government has acknowledged in its review of SSA that “the ‘chalk and talk’ or teacher instruction still dominates the classrooms ... After a number of years of implementing in-service teacher training, it is not clear what type of impact such training has had on improvements in the classroom processes” (MHRD 2010: 35–37). Even after being enrolled in newly constructed schools, many children continue to be subjected to an educational experience characterised by fear, trauma, and anxiety, which treats them as empty receptacles of textbook information, and which continues to be discriminatory and dehumanising (Nambissan 2009; Ramachandran and Naorem 2013).

Why have 30 years of effort failed to manifest this vision in our classrooms? Perhaps it is because we do not really believe in it. After decades of reforms, people are only starting to realise that the problem is not merely one of finding the right techniques, pumping in more money, or conducting more training programmes. The barriers may lie deeper, in our hearts and minds. They lie, perhaps, in a prevailing cultural mindset that does not necessarily support the vision presented in policy frameworks, a dominant worldview of which teachers are both victims and vehicles. It is a worldview in which teachers are immersed, and which they invariably reproduce, simply because it is the only one they have ever experienced. No amount of training, policies, or programmes will change what

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teachers do in the classroom unless teachers actually believe in the vision, and unless society actually embraces it.

Whatever their limitations, the policy documents cited above ultimately seek to incorporate into our education system the vision of India's Constitution, which advocates a belief in the "equality" of all humans, "liberty" (people's freedom to think and speak for themselves), and "fraternity" (the aim of working for a more just and egalitarian society). Yet, we have no research to show what our teachers actually believe with regard to the worldview promoted by our policy documents—until now. This paper presents empirical research that shows the extent to which government teachers in different parts of India believe in the worldview underlying our nation's educational vision. Moreover, it presents evidence on the extent to which teachers' beliefs impact what they do in the classroom. In other words, it reveals the beliefs that are actually shaping the education our children are receiving, and moulding the kinds of people our children are becoming. It shows that the worldviews shaping our classrooms, and ultimately our society, are quite different from the worldview promoted by national documents—this discrepancy, perhaps, helps account for why our dream has failed to materialise.

There are many complex issues preventing our education system from changing: low teacher status, low teacher motivation, discrimination, corporal punishment, outdated curricula, rigid examination systems, a lack of accountability, and low investment in education. Yet, each of these issues is rooted in dominant beliefs about humans, education, and society. Changing worldviews alone will certainly not fix all the problems plaguing our education system, but we will not be able to make a significant dent in these problems without challenging the mindsets that have produced them.

Digging Deeper into Roots of Current Practice

As early as 1979, J P Naik (1979: 167–68) warned us that "equality and quality are relatively new values for education in India ... Inequality rather than equality was the basis of traditional Hindu society." This was reinforced by Myron Weiner's (1991) research, which found that cultural beliefs were a key constraint in India's educational progress, starting with the deep-rooted belief among teachers and administrators that not all children deserve, or are capable of, the same quality of education. Fifteen years later, Batra (2006) points out that little has changed. The set of basic belief barriers highlighted by Weiner remains a critical unaddressed challenge. Over the past two decades, numerous other educationists have continued to come up against similar barriers (Clarke 2001; Sarangapani 2003). Kumar (2008: 40) identifies why such beliefs have still not changed: "On values and attitudes, the training process makes no impact; indeed, it is not intended to. The values imbibed from the dominant worldview of society are never challenged, so the young, trained teacher does not relate to policies which require a radical shift."

Despite numerous allusions to the invisible barriers restricting change in Indian education, the idea of looking at worldviews as the foundation of teaching practice remains unexplored in the Indian context. There has been no in-depth research into

how teachers' beliefs relate to their practice, what cultural beliefs may be restricting the changes envisaged by policy, and how we can address them.

The present research seeks to address this gap through a mixed methods study on the beliefs of 290 government primary school teachers in Bihar, Maharashtra, and Kerala.¹ It seeks to understand teachers' beliefs using Likert scale surveys² of all 290 teachers, semi-structured interviews with 60 of them, and in-depth life narratives with nine. In order to understand wider belief trends among teachers, interviews were also conducted with 30 teacher trainers from the three states and 40 educationists from across the country. These methods together were used to explore whether there are any prevalent beliefs among teachers that contradict the learner-centred assumptions of policy documents, which may be hindering teachers from changing traditional pedagogies. Semi-structured classroom observations were also conducted for the smaller subset of 60 teachers who were interviewed, in order to understand the relationship between teachers' beliefs and practice. Teachers were selected purposively from three cities of relatively comparable size and level of development within their respective states (Patna, Pune, and Kochi). Roughly, half the teachers were selected from urban schools, and half from rural schools within an hour of the city. The final sample ended up consisting mostly females between the ages of 30 and 50 years, holding a BEd degree, and coming from Hindu backgrounds and from Other Backward Classes (OBC) communities. Given the study's small sample size, and purposive rather than representative sampling, the results cannot be generalised to the entire population of teachers in these states, but rather, are indicative of potential trends to be further explored.

Critical realism was deemed a holistic theoretical framework to analyse the relationship between teachers' beliefs and practice. Rarely applied before to Indian education research, critical realism was initially expounded by United Kingdom philosopher, Roy Bhaskar. It is often seen as a middle way that confronts the assumptions of both positivist and interpretivist paradigms. It is "realist" in that it believes that the world exists independently of humans' ability to know it, and it is "critical" in that it holds that knowledge of the world is always fallible. Arriving at unmediated "absolute" truths about reality may be impossible, but one can attempt to get closer through a process of critical dialogue and reflection (Bhaskar 1986; Shipway 2013). For critical realists, the goal of research is to challenge power inequalities in society and to promote individuals' emancipation in a more egalitarian society.

There is a sizeable body of research on "teachers' beliefs" that has developed in the past three decades, largely in Western contexts (Mansour 2008; Pajares 1992; Richardson 1996). Though rarely explored in India, teachers' beliefs are now widely regarded in many Western countries as an important focus area for educational research, reform, and teacher education. In fact, many scholars now agree that engaging with teachers' beliefs "must serve as the primary currency of teacher education" (Sanger and Osguthorpe 2011: 572). Drawing from literature on teachers' beliefs (Borg 2001), the present study defines

“belief” as a proposition that may be consciously or unconsciously held, is accepted as true, and therefore, is imbued with emotional commitment, and which serves as a guide to thought and behaviour.

While beliefs can be about anything, this study focuses specifically on teachers’ worldview beliefs, which have a wider, collectively shared dimension than individuals’ idiosyncratic beliefs. The term “worldview,” first introduced by Immanuel Kant (in German, *Weltanschauung*), has been used in various disciplines, such as philosophy, psychology, sociology, theology, and to a limited extent, education (McKenzie 1987; Walker 2004). Worldview refers to a culturally shared, generally subconscious set of assumptions about the world, which shapes one’s view of oneself and the universe, and which predisposes one to feel, think, and act in predictable patterns (Cobern 1989). In this study, worldview is being used specifically to denote fundamental beliefs about ontology (the nature of reality), epistemology (knowledge), and teleology (purpose). The literature suggests that worldview beliefs about reality, knowledge, and purpose constitute core beliefs that typically shape the rest of a person’s peripheral beliefs about all other matters, and ultimately, their actions. In this study, the terms “belief” and “mindset” are at times used synonymously with “worldview.” My aim was not to derive a comprehensive list of all beliefs that impact teachers’ practice, but to identify core worldview beliefs that are foundational in shaping the rest of teachers’ beliefs and practices; thus, these core worldviews may be strategically targeted by reform efforts. Looking at teachers’ worldviews allowed me to identify worldviews dominant not only among teachers but perhaps more widely in Indian society, which may be collectively hindering India’s efforts to translate its educational vision into reality.

What Worldviews Prevail among Our Teachers?

Findings from this research showed that the worldviews dominant among teachers in this study do in fact contrast with, and even contradict, the worldview advocated in the Constitution and educational policy frameworks, such as NCF 2005 and RTE Act. The themes that emerged most strongly from teachers’ responses, and on which they most differed from the assumptions of policy documents, are worldview beliefs relating to equality, knowledge, and purpose. These beliefs, in turn, were strongly correlated with teachers’ implementation of learner-centred reforms. At the same time, interviews with teacher trainers and educationists, and an examination of the wider literature on Indian teachers, suggest that these beliefs are not peculiar to this group of teachers alone, but are indicative of wider trends among teachers. Such beliefs may point to more widespread worldviews dominant in Indian society, and may be representative of how teachers are treated by other stakeholders in the education system. Thus, this research does not point a finger at teachers, but rather, it identifies collective worldviews that may be hindering change in the system.

Equality beliefs—‘in fact, education is not in their genes’: India’s Constitution expresses a belief in the equality of all

people. This value manifests in India’s education policies as an assumption that “all children have the ability and the right to learn ... all children are naturally motivated to learn” (NCF 2005: 14–15). In contrast, many teachers in this study believe that some students are simply incapable of learning or are “slow learners,” typically “low” caste, poor, or girl students (Table 1). Despite some exceptions, the larger trend indicated by interviews with teachers, trainers, and educationists is a common belief among teachers in the inequality of children in terms of learning ability, potential, and even value.

Table 1: Equality Beliefs

Survey Item	Percentage of Teachers Who Agree or Strongly Agree with the Statements Provided (n = 290)
A child’s caste background affects how well they can learn	55
Children from poorer backgrounds are less capable of learning	50
Boys are able to do better in school than girls	49
A good teacher should focus on the “brightest” students—those most likely to succeed academically	44

Source: Author’s analysis.

Teachers sometimes use their prejudiced views about the “backwardness” of certain children and their parents as explanatory factors for children’s lack of learning in school. Several teachers and even some trainers explicitly attribute such traits to children’s “low” caste, making disparaging comments like, “There is no educational background at all in his family. Why he even comes to school I don’t understand” (Aditi, Maharashtra),³ or, “How much ever you teach them, they do not understand; how much ever you do, they do not learn” (Farida, Bihar). Children’s achievement levels are attributed to innate learning capacities, which in turn, are thought to stem from genetically-acquired caste deficiencies: “Most of the children were from Musahar caste—in fact, education is not in their genes” (trainer, Bihar).

Researchers continue to find rampant discrimination against marginalised children in Indian schools, particularly based on caste (Jha and Jhingran 2005; Nambissan 2009; Ramachandran et al 2005). Some children are seen as uneducable because of their community background. The wider literature finds such worldviews common not only among teachers, but in our society in general. Rao et al (2003) and Weiner (1991) all arrive at the same conclusion: issues like child labour, low enrolment, and low learning levels do not stem from India’s economic situation. Rather, they arise from the cultural belief that “the lower castes are not deserving of education” (Rao et al 2003: 168). Thus, it seems that teachers are simply mirroring the beliefs of the wider social ethos.

Knowledge beliefs—‘without giving knowledge, how can they learn?’: India’s Constitution seeks to promote among its citizens liberty of thought and expression, inculcating in them a “scientific temper” and a “spirit of inquiry and reform” (Article 51A[h]). At the classroom level, this implies encouraging learners to think for themselves, question-established notions, and creatively construct new ideas from their own experiences, rather than merely reproducing predetermined textbook content.

In contrast, over a third of the teachers in this study believe that learning involves passively receiving pre-packed knowledge transmitted by textbooks or teachers (Table 2).

Table 2: Knowledge Beliefs

Survey Item	Percentage of Teachers Who Agree or Strongly Agree with the Statements Provided (n = 290)
Memorising information is the quickest and most effective way of learning	36
In order to do well, students should give answers exactly as written in the textbook	42
The role of the school is to pass on the knowledge passed down through generations	36
Children learn best by listening to an adult explain things	38

Source: Author's analysis.

Several teachers believe that their role is to “give,” “pass on,” or “impart” knowledge so that it “goes into the mind of the student”—“Without giving knowledge, how can they learn?” (Rohit, Bihar). There is a clear hierarchical distinction between “formal” knowledge transmitted from teacher or textbook and “practical” knowledge gained from experience in the real world: “They might see practical things in their life, but they get scientific knowledge only in school” (Anita, Maharashtra). Such a belief delegitimises the knowledge children acquire through their everyday experiences as not worth knowing, particularly when this knowledge is shared by learners from marginalised communities.

The belief in knowledge transmission is confirmed by other studies on Indian teachers (Sarangapani 2003; Sriprakash 2012). Teachers tend to equate “knowing” and intelligence with memorising facts from a textbook, best achieved through didactic repetition. This transmission view of knowledge is displayed by others in Indian society, including trainers, parents, and children themselves. Trainers in the study saw their role as being to “give knowledge to the teacher, who should pass it on to the students because only then does the knowledge reach students correctly” (trainer, Kerala). This mindset has resulted in Indians regarding themselves as consumers rather than producers of knowledge, influenced no doubt by British colonial rule (Kumar 2004), but rooted in even more ancient Brahminical traditions (Mani 2015).

Purpose beliefs—‘Most important is post. Job position, family status should be high’: Our Constitution’s vision of “fraternity assuring the unity and integrity of the nation” (GOI 1950) implies a view that the purpose of work is not just survival, but service. This implies that the purpose of education is to improve society, by promoting a more “egalitarian social order” (NCF 2005: 7). However, like many others in our society, many teachers in this study see the purpose of education, and life itself, as individual socio-economic mobility, thus reinforcing rather than challenging the existing hierarchical social order.

Many teachers in this study see education simply as a means to earn, rather than a means to serve. Approximately half the teachers emphasised socio-economic mobility not only as a primary reason for children going to school, but also for their own work and lives. These teachers view education merely as a means of acquiring a good job, which is a means to three ultimate ends: status, power, and comfort. “In my opinion, a technical degree is more important for a person’s life—because

that gives you a lot of power. Most important is post. Job position, family status should be high. Your living standard should be high ... but status is more important” (Lata, Bihar). These beliefs are corroborated not only by interviews with educationists, but also by the wider literature (Clarke 2001; Rao et al 2003). Teachers are expected by authorities, parents, and ultimately themselves to produce students who can score high marks. Marks are regarded as the indicator of one’s success as a teacher, and the key to students being able to lead successful lives.

In contrast, three trainers in this study commented that teachers who see themselves as responsible for the moral development of society tend to be more committed and motivated to adopt progressive methods, even if it requires greater effort. Some teachers do see the purpose of their own lives as serving others and contributing to greater social justice, and state that they became teachers to help poor children succeed, and in this way, they help the country progress: “If we only live for ourselves how can our society progress? Simply studying well is no use. You have to make yourself beneficial to society” (Anu, Kerala).

Peripheral beliefs stemming from teachers’ worldviews:

The study found several peripheral beliefs related to teachers’ core worldviews that also affect their pedagogy. An ontological belief in human inequality is linked to valuing hierarchical rather than democratic relationships, and valuing uniformity rather than diversity. For example, many teachers in the study believe that children should be controlled through fear and discipline, rather than favouring democratic and friendly teacher–student relationships. Similarly, many teachers assume and prefer learners to be alike, rather than seeing diversity and uniqueness as something positive. Teachers’ epistemological belief in knowledge as something that is “transmitted,” shapes many of their beliefs about learning and children; for example, a belief that children do not learn anything outside of school is related to the prioritisation of formal education over experiential learning. Similarly, many teachers in the study believe that children require the external motivation of fear or exams, rather than recognising that children are naturally motivated to learn; the teachers view learning and play as separate and mutually exclusive.

Tied to the core beliefs in human inequality and that the purpose of life is socio-economic mobility rather than service, is teachers’ conviction that their duty is task completion rather than ensuring outcomes. An important factor here also is their low professional commitment. For example, many teachers have a minimalist view of their duty, as simply completing the syllabus—whether or not students actually learn—rather than feeling personally responsible for ensuring that all students learn well. Similarly, their low professional commitment is perhaps also a result of teachers’ view of their purpose as merely earning a salary rather than being responsible for making any larger contribution. The widespread contempt for poor or “low” caste children results in the job of teaching poor children being considered a low status job in Indian society, which further contributes to teachers’ low professional commitment. These are just some examples of how teachers’ ontological,

epistemological, and teleological worldview beliefs end up shaping their educational beliefs, which in turn influence what they do in the classroom.

Relationship between Teachers' Worldview Beliefs and Practices

In the mixed methods approach employed in this study, the quantitative analysis was used to empirically establish that there is a strong relationship between teachers' worldview beliefs and their practices. Thereafter, the qualitative analysis was able to further elucidate the nature of this relationship using a critical realist lens.

First, based on semi-structured classroom observations, each of the 60 teachers in the smaller subsample was assigned a "Learner-Centred Education (LCE) Pedagogy" score, indicating the extent to which their practice aligned with the "learner-centred education" approach laid out in NCF 2005 and RTE Act, currently the two guiding documents laying out India's vision for pedagogical reform.⁴ Each teacher was also assigned an "LCE Beliefs" score based on surveys and interviews, denoting the extent to which their beliefs aligned with the worldview underlying NCF 2005 and RTE Act, along eight specific belief dimensions. These included core beliefs related to equality, knowledge construction, and purpose of education, as well as peripheral beliefs related to democratic relationships, diversity, responsibility for learning outcomes, professional commitment, and change. Across the sample, data showed a strong relationship between teachers' beliefs and pedagogy scores ($r = .73, p \leq 0.01$), even when controlling for other factors, including state. This is presented visually in Table 3: when divided into three equal groups based on teachers' beliefs and pedagogy scores, a cross tabulation of these groups shows a clear association between these variables.⁵

Table 3: Cross Tabulation of Teachers' Beliefs and Pedagogy Scores

	Low-LCE Pedagogy	Mid-LCE Pedagogy	High-LCE Pedagogy
Low-LCE beliefs	13	7	0
Mid-LCE beliefs	7	9	4
High-LCE beliefs	0	4	16

Source: Author's analysis.

Table 3 indicates that most teachers displaying more learner-centred pedagogy also tend to have more learner-centred beliefs, and vice versa. No teacher with low-LCE beliefs displayed high-LCE pedagogy, and no teacher with high-LCE beliefs showed low-LCE pedagogy, suggesting a definite association between the two. These findings suggest that changing teachers' practices is not merely a matter of giving them the "right" knowledge or training them in "correct" techniques; there are deeper collective worldviews that shape teachers' practices. As Alexander (2008: 19) points out, "pedagogy is not just a matter of disembodied technique. It reflects and manifests values. In turn these are not merely the personal predilections of individual teachers, but the shared and/or disputed values of the wider culture."

In a critical realist view, the aim of research is to move beyond manifested phenomena to identify underlying "causal mechanisms,"⁶ namely the reasons or beliefs that shape observable practices and structures. Critical realists assert that individuals may sincerely believe that they are acting based on a particular reason while, in fact, their thinking may be distorted by ideology⁷ or "false beliefs" in ways that they may be unaware of. According to Bhaskar (1998), beliefs are

considered false or ideological if they meet two criteria: they can be shown as false by comparing them to a superior explanation for the phenomenon in question, and there exists a reason for why the false beliefs are held. For example, teachers' beliefs about the lower learning capacity of "low" caste children can be empirically shown to be inaccurate, and these beliefs are perpetuated because they support the dominance of certain castes in Indian society. Similarly, beliefs about learning as knowledge transmission as opposed to construction can be compared against evidence regarding how children best learn. The beliefs can similarly be analysed in terms of their oppressive effect in supporting the dominance of certain groups. The belief that the purpose of education is socio-economic mobility, but without questioning the existing social order or supporting its transformation towards an egalitarian society, would similarly contribute to reinforcing rather than breaking down social hierarchies. According to critical realists, the perpetuation of oppressive structures in society relies on promoting "false beliefs." Thus, teachers' ideologically shaped worldviews constitute causal mechanisms underlying their pedagogical practice.

In the critical realist approach, research to understand Indian teachers' practices must begin with the reasons underlying their practices: their beliefs and the ideologies that shape them. But, though we begin with reasons, the explanation of teachers' practices draws on an analysis of the intersection of wider structures with teachers' agency (Scott 2010). It is tempting to blame ineffective pedagogy on the cultural structures that shape teachers, or on teachers themselves for being unmotivated or opportunistic. But, this fails to account for the causal powers possessed by both social structures and individuals' agential ability to reflect and choose their actions. Both structure and agency have a part to play in motivating practice. The fact that individuals exercise agency accounts for why people do not respond in a uniform manner when faced with the same structures or constraints. Indeed, in all three states, there were teachers who had chosen different beliefs than the dominant worldview. In all three states, there were individual teachers who believed in the equal value of all children, who saw knowledge as built through exploration and experience, and who viewed their work as teachers in terms of its wider benefit to society.

In this view of a dialectical interplay between agency and structure, critical realism offers both, a more complex understanding of teachers' current practice and a possible way forward. In the view of critical realists, humans constantly act in a world of structural constraints and possibilities that they did not produce, but in the course of acting, they are always either reproducing or transforming structures (Archer et al 1998). Herein lies the possibility of change—structures (including cultural ideologies or educational systems) are not static or deterministic. Rather, they are always in a constant process of change or reproduction, and individuals can choose to which of these they wish to contribute. For the most part, change is produced by unconscious action; what Bhaskar advocates is conscious action. The starting point for empowering individuals as rational agents of transformation is to generate conscious awareness of false beliefs that constrain their actions, and to replace "false" consciousness

with individuals' intentional choices. In this view, enabling teachers to reflect on and question their beliefs—to examine contradictions between their stated beliefs and actions, and the ways in which their beliefs may be shaped by ideology—is fundamental to empowering them as rational agents. This approach is supported by, and elaborates on, research by Batra and others on the need for strengthening teachers' agency (Batra 2005; Ramachandran et al 2008), by explicating more clearly what this might entail.

A critical realist analysis suggests that teachers' practices are shaped both by dominant worldviews and by the structures or systems that embody these worldviews. Yet, by raising conscious awareness of these dominant worldviews, teachers can be empowered to be rational agents who can choose to change their beliefs and practice, and thereby influence these larger structures (Figure 1).

As depicted in Figure 1, worldviews shape teachers' practices, but this relationship is mediated through structures, which themselves typically embody the dominant worldview. Teachers' beliefs—and thus their practices—are more strongly shaped by the worldview implicitly embodied by the structures in which they are immersed, than by any of the formal messages they receive in training programmes. This is reflected in the fact that the majority of Kerala teachers, in contrast to teachers from Bihar and Maharashtra, had more learner-centred worldviews which aligned more closely with a constitutional worldview. In contrast to the other two states, in Kerala, a more egalitarian worldview can be found across the wider social ethos, which has also influenced the structures of the education system, thereby influencing individual teachers' beliefs and practices. The findings of this research point to three key areas that must be targeted in our attempts to affect pedagogical change: worldviews, practices, and structures. Shifting the worldviews of teachers and other educational stakeholders can help empower them as rational agents who can bring about changes in their practices and who can influence wider structures. At the same time, these relationships are bi-directional: worldviews do not exist in a vacuum, and bringing about changes in practices or structures can also help shift teachers' worldviews. Initiating change in teachers' worldviews is, thus, a necessary but insufficient condition for bringing about change in teachers' practices.

Engaging with Worldviews in Educational Efforts

Our Constitution and educational policies presume a worldview that sees humans as born with equal value and having something meaningful to contribute, and that the purpose of education is to create a more egalitarian society. Yet, as this research shows, the predominant worldview among teachers—and in fact, in our society—is quite different from that put forth in our national documents. A caste-based worldview does not believe that every child deserves quality education. A

hierarchical worldview does not believe that every person has something meaningful to contribute. A fatalistic worldview does not believe that one should—or that it is even possible to—challenge karma-ordained inequalities. These are the worldviews that dominate our society, which we are presumably trying to fight through the Constitution, the NCF, and, ultimately, our teachers. But can we expect our teachers to withstand being swept up the tide of centuries and entire populations which reinforce the dominant worldview?

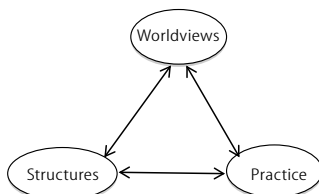
Our teachers ultimately make up a microcosm in our society. Many teachers merely reflect the worldview that they have personally experienced in their own schooling, and which they continue to experience every day in a system that neither affirms their individual dignity, believes they have any meaningful ideas to contribute, nor expects much more from them than showing up and covering the syllabus. Teachers are unable to internalise the new worldview simply because they have never experienced it. They are stuck in a contradiction and told to believe one thing while experiencing another. B R Ambedkar articulated this contradiction decades ago on the eve of signing our Constitution into law:

On the 26th of January 1950, we are going to enter into a life of contradictions. In politics we will have equality and in social and economic life we will have inequality. In politics we will be recognizing the principle of one man one vote and one vote one value. In our social and economic life, we shall ... continue to deny the principle of one man one value. How long shall we continue to live this life of contradictions? How long shall we continue to deny equality in our social and economic life? (Round Table India 2016)

As we struggle to move closer to the values articulated in our Constitution, teachers constitute one critical piece that can help determine how long this period of contradictions will continue. How can we help our teachers combat the dominant worldviews that are holding back our classrooms and keeping us from our dream? How can we empower teachers as rational agents by targeting worldviews, practices, and structures, to align each of these three levels more closely with our constitutional vision?

First, teacher education programmes must intentionally target teachers' worldview beliefs by enabling them to experience the new worldview for themselves in the way they are treated and regarded in teacher training environments. We must address the contradictions embedded in a system that trains teachers on the basis of policy frameworks like NCF 2005—that each person has equal value, meaningful ideas to contribute, and a larger purpose in their lives—and then, in that same teacher training hall, communicates to them that they do not matter as individuals, do not have anything worthwhile to contribute, and do not have any purpose larger than following instructions. For teacher education programmes to be effective in shifting teachers' worldviews, they must model a constitutional worldview of equality, liberty, and fraternity. They must enable teachers to experience being treated as equals and with respect. It should be assumed that they have experiential knowledge and creative ideas worth learning from, and that they can make meaningful contributions to social change. It is no use simply introducing “worldviews” or “Constitutional values” as additional topics in the teacher training curriculum

Figure 1: Relationship between Teachers' Worldviews and Practices



Source: Author's analysis.

without applying them—the way teachers are treated will cancel out any training message we drill into them. Yet, even a workshop on teaching Class 1 mathematics can begin to transform teachers' worldviews if they are treated with a worldview radically different from the one they experience in society. The medium *is* the message.

Second, for long-term sustainability of reforms, teachers must be given freedom to brainstorm their own new practices based on transformed beliefs, rather than simply being told to implement ideas designed by others. It is only after teachers have had opportunities to experience the new worldview and reflect on their existing beliefs that they can be empowered to creatively brainstorm the small, doable changes they can implement within their existing contexts. The role of teacher educators becomes simply to introduce teachers to the required skills to be able to implement the new vision within their classrooms. Focusing on learner-centred beliefs, rather than fixed learner-centred practice, is central to empowering teachers as professionals who can then respond confidently to whatever new challenges they may encounter. Simply imparting teaching techniques without establishing a foundation of underlying beliefs—as some activity-based learning programmes tend to do—may result in teachers' practices getting filtered through their contradicting beliefs, and then being implemented either ineffectually, unsustainably, or not at all. On the other hand, focusing only on shifting beliefs without equipping teachers with practical skills to implement them may lead to frustration, or superficial changes in beliefs which, when confronted with practical challenges, may cause them to revert to former beliefs. Reforms must target both teachers' worldviews and the skills needed to translate these into practice.

Finally, we will not be able to bring about lasting changes in teachers' worldviews unless we simultaneously begin creating structures that embody (or at least permit) the new worldview. As long as teachers are constrained by structures that reinforce the dominant worldview and oppose the new worldview, it will be difficult for any well-meaning teacher to bring about substantial change in either their beliefs or practices. A teacher attempting to step outside the status quo and experiment with a different worldview will immediately be obstructed by numerous contradicting structures. These include the pressure to race through the syllabus, school timetables that compartmentalise knowledge, classroom organisation that forces the teacher to take centre stage, examinations that reward knowledge recall rather than knowledge construction, school inspectors that value disciplined classrooms, and the importance of neat records over meaningful learning. Anyone serious about facilitating sustainable worldview shifts must seek out what small policy or structural changes they can introduce within their locus of influence, which can help encourage the new worldview, whether in a district, cluster, school, or even a single classroom. For example, by initiating small tweaks to the way classrooms or timetables are organised, the behaviours for which teachers are rewarded, or the skills on which children are assessed, one could begin to create new structures that gently nudge teachers towards desired beliefs and behaviours without them even realising it.

In the course of this research, I came across one initiative that is attempting to address the issue at all three levels: worldviews, practice, and structures. The Kalikayatna ("learning initiative") approach, which evolved in government schools in rural Karnataka with help from the non-governmental organisation Prajayatna, is now being implemented in government schools in selected clusters in seven other states, under the umbrella of the India Education Collective (IEC). The IEC's approach seeks, first of all, to immerse teachers in a more egalitarian worldview by intentionally selecting facilitators based on their warmth, sensitivity, and ability to build a relationship with teachers. Facilitators' internal measure of success is whether at the end of a workshop a teacher smiles and asks, "When are you coming next?" Second, the IEC's approach draws out new practices from teachers by insisting that what they advocate is not a specific methodology—they simply expose teachers to basic principles of learning. Thereafter, they facilitate monthly one-day "Teacher Collectives," where teachers review progress and brainstorm activities together for the month ahead.

Changing Structure of Assessment

But, the IEC's strongest focus is on changing structures, which they view as the most powerful way to change both teachers' worldviews and their practices. They find that when they provide structures that embody the new worldview, teachers' worldviews automatically start changing, without them even realising it. The IEC restructures the existing syllabus by helping teachers map a comprehensive concept list linked to specific learning objectives for each topic, and then teachers choose the appropriate methodology based on the learning objective. Traditional school timetables are restructured by dividing class time into three parts: whole class discussion, small group activities, and individual consolidation time. The approach also restructures traditional classroom divisions by mixing children of Classes 1–3, and grouping students based on current learning levels rather than age. Perhaps, most importantly, the IEC's approach insists on changing structures of assessment by obtaining permission from government authorities that the primary schools in which it works will not be subjected to external examinations but will be entirely free to follow an internal formative assessment approach.

In the Kalikayatna classrooms I visited, I found primary school children of different ages and abilities sitting on the floor, engaged in a lively discussion with the teacher, confidently venturing door-to-door in pairs to gather information from community members, and then eagerly organising and writing out the information they had gathered. By targeting teachers' worldviews, practices, and structures, IEC has been able to bring about much of the learner-centred vision of policy documents in hundreds of government schools in different parts of India. This has been led primarily by the existing government cluster resource persons using prescribed government textbooks and minimal external resources. IEC's strong belief is that implementing the vision of NCF 2005 and RTE Act does not require crores of rupees, but simply looking at learning from a different perspective.

This research demonstrates that our current educational practices are rooted in much deeper worldviews shared not only among teachers, but by the wider Indian society. Merely establishing policies, curricular frameworks, or training manuals that are founded on constitutional beliefs will not automatically result in such beliefs being incorporated into teachers' minds and classrooms. Ambedkar knew that the constitutional worldview "is not a natural sentiment; it has to be cultivated"

(Massey 2003: 92). Perhaps our policies, curricular frameworks, and educational reforms have done an injustice to teachers by expecting them to practise a radically different worldview, without investing the time and effort needed to facilitate worldview shifts. Engaging with worldviews can help us begin to address a major invisible barrier to bringing about the change we want to see. And, it is what we must do if we are serious about our dream becoming a reality.

NOTES

- Data collection for this research was initially supported by the ICICI Centre for Elementary Education. Analysis of the data formed part of doctoral work from UCL (University College London) Institute of Education, London (data collected in 2010, study completed in 2016).
 - The Likert scale survey included a five-point scale that measured the extent of participants' agreement or disagreement with a series of given statements.
 - Each teacher has been assigned a pseudonym, followed by the state where they work. All interviews were conducted in August–September 2010.
 - A thematic analysis of NCF 2005 and RTE Act yielded 10 indicators that were used to assess teachers' pedagogical practices: holistic learning outcomes, community linkages, a variety of learning materials, students' active exploration, building on students' prior experiences, cognitive engagement, encouraging student questioning, a loving and fear-free atmosphere, a democratic and inclusive environment, and continuous formative assessment.
 - For both beliefs and pedagogy, the lowest 20 scores were labelled "low-LCE," the middle 20 "mid-LCE," and the highest 20 "high-LCE." The terms "low," "mid," and "high" are not meant to be value judgments on the quality or merit of teachers' beliefs or practices, but simply indications of the extent of their alignment to learner-centred education.
 - Critical realism's theory of causality is not intended to make law-like predictions of future action generalisable across an entire population, but rather to identify themes and tendencies. For critical realists, the goal of research is neither to identify generalisable laws (as in positivism) nor to identify the lived experiences of social actors (as in interpretivism), but to develop deeper levels of explanation and understanding.
 - Ideological beliefs typically create an untested "false consciousness" that supports the dominance of certain groups and the oppression of others. Gramsci's (1971) analysis of hegemony explains how people learn to embrace certain beliefs and values as natural, taken-for-granted, common-sense wisdom—even beliefs that actually work against their interests and serve those of the ruling elite.
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