BUILDING TEACHER QUALITY IN INDIA

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BUILDING TEACHER QUALITY IN INDIA: EXAMINING POLICY FRAMEWORKS AND IMPLEMENTATION OUTCOMES

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Rohit Setty's work centers on intellectualizing teachers' education in India and abroad. He works with faculty and research centers across India on textbook reform, teacher education curriculum reform, and ways to carry out teacher education. He writes for Indian popular press, academic journals in the USA, and publishes in internationally edited volumes. He serves as a co-editor for the series *South Asian Educational Contexts in South Asia Education Policy, Research and Practice*, and currently works as a board member for several non-profits, such as Children's Lovecastles Trust, APPEAR India, and the Dharma into Action Foundation. He earned his PhD in Teaching & Teacher Education at the University of Michigan. During this time, he was a Fulbright Fellow in India where he designed and developed professional learning environments for government schoolteachers. He has taught in Virginia, Japan, and New Zealand as a secondary school teacher and has worked with in-service and pre-service Social Studies teachers across Michigan and in India over the last 20 years.

Haein Shin is Education Technical Adviser at the Center for Sustainable Development of Columbia University's Earth Institute. For the past 10 years, she has worked on the implementation, management, monitoring and evaluation and content development of projects in Myanmar, India, Morocco, Saudi Arabia and 10 countries in sub-Saharan Africa. The aim of these projects, mainly focusing on literacy, digital literacy, employment readiness and life skills, and environmental activism, is to build sustainable and resilient communities. As a community educator, she worked across health, environment, and small business sectors to bring youth education programming on sustainability and gender issues. She has developed and curated curriculum contents for Education for Sustainable Development (ESD) to merge science knowledge and civic engagement, and created curriculum merging job readiness, life skills and digital literacy. She has conducted qualitative data studies involving over 350 participants on the process of education technology uptake to inform teacher training. Taking findings from her research, she trained ministry education officials on classroom teaching methods using technology including Virtual Reality. She received her Master of Arts in International Educational Development from Teachers College, Columbia University and her Bachelor of Arts in International Relations from the College of William and Mary.

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CHAPTER 1

THE PROMISES AND CHALLENGES OF BUILDING TEACHER QUALITY IN INDIA

Alexander W. Wiseman and Preeti Kumar

ABSTRACT

Since the spread of mass education around the world in the mid- to late-twentieth century, teacher quality has been heralded as the key factor to improve education quality nationwide. National education systems worldwide are also engaged in ongoing and often high stakes cross-national comparisons. As a result, policy-makers and educators in most national education systems are looking at and implementing new ways to improve education overall by raising teacher quality levels, and India is no exception. In India, teacher quality is publicly blamed for both perceived low education quality and demonstrated low average student performance, especially following Indian students' performance on the 2009 Programme for International Student Assessment. Indian education policy-makers are, therefore, looking at teacher quality as a key factor to improve student performance. Little is known about the impact or implementation of Indian policy frameworks on teacher quality and associated student outcomes in India. This introductory chapter identifies and analyzes various measures of teacher quality and how teacher quality varies in India both in response to and in spite of national policies related to teacher quality. It begins by providing evidence regarding the global importance of teacher quality on student outcomes and then addresses the ambiguity of the term "teacher quality." This chapter then briefly discussed national education policy in India and the role teacher quality has played in these national policies, especially in

the early twenty-first century, including NCF 2005, NCFTE 2009, Draft NPE 2016, Draft NPE 2019, and NPE 2020.

The question as to which school factors most influence student achievement is increasingly important in the twenty-first century because (1) there are many school and non-school factors that influence student achievement, which are often difficult to distinguish without appropriate data and analysis, and (2) the political, economic, and social standing of nations like India often rest on national comparisons of educational quality (Kingdon, 2007). For example, while some research has shown that non-school factors like students' family background bears heavily on student learning (Darko & Vasilakos, 2020; Li & Qui, 2018), other research suggests that school factors such as teacher qualifications (Akiba, LeTendre, & Scribner, 2007; Hill, Rowan, & Ball, 2005; Lee & Zuze, 2011) or class size (Addonizio & Phelps, 2000; Mishel & Rothstein, 2002) have a greater influence on student learning.

As international comparative data on education becomes increasingly available to educational policy-makers, national media, and the general public worldwide, educational policy-makers and educators themselves are looking at new ways to improve student learning. In particular, increasingly greater attention has been given to the role that teacher quality plays in improving student achievement levels (Darling-Hammond, 2000). In fact, the topic of teacher quality has gained interest with educational policy-makers and professionals as demonstrated by an observable increase in research, reform, and writing on the importance and perceived impact of teacher quality (LeTendre & Wiseman, 2015).

Put simply, the global consensus is that teacher quality matters more than most other school factors, and perhaps more than non-school factors as well. Researchers at RAND (Opper, 2019) put it this way,

> Many factors contribute to a student's academic performance, including individual characteristics and family and neighborhood experiences. But research suggests that, among school-related factors, teachers matter most. When it comes to student performance on reading and math tests, a teacher is estimated to have two to three times the impact of any other school factor, including services, facilities, and even leadership. (p. 1)

The pivotal impact that teachers have on their students' learning has been demonstrated enough by empirical research that the popular as well as evidence-based consensus is that quality education within nations cannot be achieved without raising teacher quality first (Cerqua, Gauthier, & Dembélé, 2014).

There is enough reliable and valid evidence available globally to show that teacher quality impacts student performance (Abe, 2014; Fong-Yee & Normore, 2011; Goldhaber & Anthony, 2003; UNESCO, 2006). In the literature, one may see how intensely this focus has been placed upon teachers, to the relative exclusion of other factors influencing the quality of education. In investigating the

meaning of education quality, the research literature has examined a wide range of student outcomes. For example, drawing from the Coleman Report released in 1966, Goldhaber (2016) stated that teachers are the single most important school-related factor in student achievement and, thus, the idea that teachers impact children's learning moved to the forefront of national education reform agendas.

Much of the recent work in the field has focused particularly on quantifiable indicators of educational performance such as student test scores. "Hard" performance measures of these kinds have the appeal of quantifying a key outcome of student learning in a relatively objective and standardized manner for large numbers of students and teachers. In fact, test scores and other quantitative measures have become a foundation of research on the importance of quality teaching. These measures support a consensus that teacher quality has the largest in-school impact on student learning (Hightower et al., 2011).

This global education reform focuses on teachers and teacher quality is not only driven by student achievement data. There are many other reasons teachers occupy a central role in schools and national education policy. For example, Hanushek and Rivkin (2006) assert, "there is a prima facie case for the concentration on teachers, because they are the largest single budgetary element in schools" (p. 1053). In addition, the Organization for Economic Cooperation and Development (2005) sets forth the frequent assertion that among the school variables that are "open to policy influence, teacher quality is the single most influential factor in determining student achievement" (p. 2). Therefore, it is apparent that the role and quality of teachers is given priority in national education policy reforms not only because it is a global trend, but because there is significant evidence to suggest that teacher quality provides the most likely opportunity of improving student outcomes and by proxy raising the overall quality of education across a national education system.

THE ELUSIVE DEFINITION OF TEACHER QUALITY

Despite the importance given to teacher quality in educational policy, reform, and teacher preparation, the term is neither well-defined nor standardized. In fact, there is an ongoing debate about how to appropriately and contextually define this elusive concept (Kumar & Wiseman, 2021; Wiseman & Al-bakr, 2013). Various components like teacher qualification, expertise, teacher pedagogy, and student achievement are used (often in varied combinations) to comprise teacher quality. In the Arabian Gulf states, for example, teacher licensing or certification is one way to measure teacher quality (Wiseman & Al-bakr, 2013). In the United States, a quality teacher is one whose students consistently increase their achievement outcomes. It is generally assumed that a highly qualified teacher will also be an effective teacher in his or her unique context or community (Azam & Kingdon, 2014).

National educational systems mandate or encourage the development of teacher quality in different ways worldwide, but they usually involve some type of binding or qualifying policy. For example, in the United States, there are government regulations and standards mandated by federal education policies, which are then left to

states to operationalize and implement (Azam & Kingdon, 2014). In BRIC economies, which include India, each country has its own standard to measure or define teacher quality. In Brazil, for instance, the government has taken many steps since the mid-1990s to improve teacher quality. Specifically, the 1996 Law on National Educational Guidelines and Framework mandates that all teachers attain a university qualification with in-service training and an increased number of practice teaching days (Kumar & Wiseman, 2021). Continuous Professional Development (CPD) is the key focus to improve teacher quality in China (Robinson, 2008), and, in Russia, teacher quality is determined by the test scores students get on the common entrance exam (i.e., the Unified State Exam, a.k.a., USE) that functions as a college entrance examination (Zakharov, Carnoy, & Loyalka, 2015).

In India, the importance of highly qualified teachers is also reflected in public policy. Despite the importance given to teacher quality to improve education quality in India, what defines a quality teacher is not explicitly specified in the Indian context. Data on Indian education, teacher activity, background characteristics, and teacher training could provide evidence about what teacher quality means in India, but even after the poor performance on 2009 Programme for International Student Assessment, the Ministry of Human Resource Development (MHRD) has yet to evolve a full-fledged system of data collection, monitoring, and evaluation of education. Smaller, uncoordinated data exists, however. For example, a study by Aggarwal (2000) showed that a sample of New Delhi teachers were not qualified to teach and had no in-service training for more than five years preceding the study (Aggarwal, 2000). Data such as this has encouraged the Minister of the MHRD to extend the duration of teacher education as a way to possibly improve teacher quality (Nanda, 2017); however, there is no empirical evidence to suggest this has been successful.

Globally there are no standard norms for teachers that apply to every educational system, culture, or context, although teacher certification has certain common key elements (Wiseman & Al-bakr, 2013). Additionally, internationally comparative evidence shows that expectations for new teachers are quite similar globally. New teachers are expected to be competent in content knowledge and pedagogical skills gained through their educational training. The teacher training method and duration may vary from country to country (Ingersoll, 2007), but there are still shared expectations about the qualities new teachers should demonstrate. For example, teachers are expected to be self-reflective, innovative, and committed to continuously developing their skill.

INDIAN EDUCATION SYSTEM AND TEACHER PREPARATION

School Classification

India is the home to over a billion people and has one of the largest and most complex education systems in the world next to China. With a population growth of approximately 1.25 percent, the country is set to be the most populous country in the world by 2030 (BCI, 2014). Among the 29 states and seven union

territories that comprise India, Uttar Pradesh is the most populous followed by Bihar, Maharashtra, and West Bengal (CensusIndia, 2011). Each state has its own Department of Education with its own school system, textbooks, and evaluation system. These are all within the national guidelines issued by the National Council of Educational Research and Training (NCERT). Education has always been given a valuable place in Indian society and is considered by both policymakers and the public to be a means to eliminate the cycle of poverty, thereby raising the country's economic productivity and global standing.

Schools in India are classified by level of education, by ownership, and by educational board affiliations. The levels of education include pre-primary, upper primary/middle, secondary, and higher secondary education. The MHRD governs the overall education system in India alongside a Central Advisory Board on Education, with each state having its own Education Ministry (BCI, 2014). Ownership of schools is split between the government (central, state, or local government bodies) and private institutions (trusts, individuals, or societies), which receive a government grant. The rest are privately owned, privately run schools, usually teaching an international curriculum and having their own fee structure. And, finally schools are classified by educational board, such as the Secondary School Certificate (SSC), the Central Board of Secondary Education (CBSE), the Indian Certificate of Secondary Education (ICSE), and the International Baccalaureate (IB).

Evidence suggests that the quality of teachers differs significantly between private and public schools in India, which impacts the overall quality of education in the country (Singh & Sarkar, 2012). Recruitment of teachers in private schools is solely at the schools' discretion. According to a report in *The Times of India*, many teachers in private schools in India do not have the requisite teaching B.Ed. degree, and a few of them have not even completed their high school education (Raghavan, 2013).

TEACHER PREPARATION

India's approach to teacher preparation is a result of the country' transition from the pre-independence era where the concept of teacher education evolved from teacher characteristics to teacher skills then to teacher training, and finally to the modern concept of teacher education (Kumar & Wiseman, 2021). The National Council of Teacher Education (NCTE), a statutory body of the Central Government is responsible for the development of teacher education in India. According to the MHRD (2015) report, the NCTE determines norms and standards for teacher education, including training, certification, minimum qualifications, course content, and duration. Teacher education research, pre-service training, and curriculum are all handled by the NCTE. It also grants recognition to institutions who conduct teacher training and also monitors the standards. Additionally, there are government-owned teacher training institutions (TTIs) that provide in-service training to school teachers. NCTE is revamping the teacher education curriculum to make learning relevant to students and shift

teaching to a constructivist teaching approach. Also, distance teacher education and information and communications technology (ICT) in teacher education may be monitored. Additionally, NCTE is also engaged in the ongoing development of new or revised teacher resources for trainee teachers or teacher educators.

Despite the efforts taken to improve teacher quality through teacher education, evidence suggests that in practice India continues to struggle over which teacher training and education programs are most likely to lead to improvement in teacher and education quality. Furthermore, the different types of school ownership and economic and social inequalities makes policy-making in teacher education a highly disputed area in India (Kumar & Wiseman, 2021).

Although there was no definition of the quality of a teacher during the first era of educational policy and development in India, it was widely accepted among India policy-makers and educators alike that the quality of education in India depended on the quality of the teachers. Since 1948, the recommendations made by various commissions and committees regarding teacher education have been adopted by the Government of India. Early in India's independence, it was realized by the Government of India that in order to increase the literacy rate and universalize school education, trained teachers were required in large numbers. Thus, after independence, in order to provide teacher education, a number of public institutions were established by the central as well as the state governments. However, teacher quality in India was consistently been perceived by education policy-makers and the public as unsatisfactory. Recommendations from various early education commissions like the University Education Commission (1948–1949), the Secondary Education Commission (1952–1953), and the Education Commission (1964–1966) led the way to formulating a much-needed national policy framework in India in 1968. The National Policy on Education (NPE) in 1968 accorded high importance to teachers and focused mainly on teachers' in-service training. NPE 1968 particularly brought attention to teacher qualities other than qualifications alone. But, NPE 1968 was hindered by a lack of implementation. Inadequate financial and organizational support led to the next education policy, the NPE of 1986. The NPE 1986 recommended that teacher education be a continuous process and that its pre-service and in-service components are inseparable. It gave particular importance to the training of elementary school teachers, and designated that selected institutions would be developed as District Institutes of Education and Training (DIETs). As a result, some training schools were upgraded to DIETs, while others became Colleges of Teacher Education (CTEs) or Institutes of Advanced Studies in Education (IASEs) (Mangal, 2020).

KEY POLICY ENACTMENTS

Indian education frameworks and policies reflect the fact that Indian educational administrators, policy-makers, and the general public hold teachers primarily responsible for student learning. Therefore, the training and professional development of teachers are deeply embedded in India's national education policies. The key policy developments since the early twenty-first century also suggest

an intent to improve education and teacher quality in India. The Executive Committee of NCERT in India made a decision in 2004 to revise the existing National Curriculum Framework to create a more balanced national education system. The decision came in light of repeated concerns over the quality of learning and the unnecessary academic pressure on school going children (Kumar & Wiseman, 2021).

National Curriculum Framework (NCF) 2005 is the latest version in the sequence of the curriculum frameworks, which include NCF 1975, 1988, and 2000 developed by the NCERT in consultation with the National Steering Committee and 21 focus groups (Yadav, 2013). NCF 2005's official aim was to prepare every child in the country to flourish in and as a part of India's fast-changing global status (NCERT, 2005), and for this, teachers were expected to be guides and facilitators of students' learning by helping them construct their own knowledge and learning. This was a drastic conceptual shift from teachers as the "givers of knowledge" to teachers as "facilitators of knowledge." This focus of NCF 2005 was intended to remodel teacher education to make learning more relevant to students (Kumar & Wiseman, 2021).

Although NCF 2005 focused on developing a holistic and universal education system in India, it has been challenging to implement. For example, state educational administrators are often not convinced of NCF's proposed changes to mathematics syllabi meant to reduce students' stress and educational burdens. They argue that reducing the number of topics taught in mathematics will lead to substantial loss of mathematical knowledge and thereby make the children unfit for competitive exams (Dewan, Batra, & Chabra, 2012). Another major challenge is that teachers are not confident in knowing when to move from concrete aids to more abstract conceptualizations; spiraling through concepts does not come easy to the teachers (Dewan et al., 2012).

The Right to Education Act or the Right of Children to Free and Compulsory Education Act of 2009 (RTE 2009) was enacted by policy-makers to make education a fundamental right and to ensure free and compulsory education for all children between the ages of 6 and 14 years as guaranteed under Article 21A of India's constitution. In an attempt to improve education and teacher quality in India, RTE 2009 exemplified qualifications for appointment and terms and conditions for teachers. Additionally, to improve student learning, student–teacher ratios, and minimum percentages of teacher vacancy were specified (Chudgar, 2013). Although there is a measurable improvement in overall enrollment rates, RTE 2009 failed to improve the quality of learning overall (Bhattacharjee, 2019). Even in respect to enrollment, there are state-specific and rural/urban discrepancies. Lack of planning and coordination, inadequate funds, and administrative and structural lapses are a few reasons for the general failure of RTE 2009 in India (Bhattacharjee, 2019).

Understanding the symbiotic relationship between teacher education and school education, the National Curriculum Framework for Teacher Education (NCFTE) 2009 was developed by the NCTE. It provides a systematic and comprehensive framework for teacher education. The NCFTE 2009 approaches teaching as a profession that requires a well-planned and relevant education and training

program like any other profession. NCFTE's vision was to make teacher education institutions (TEI) into centers of research and practical training to enhance the quality of education in India through improved teacher quality (Chudgar, 2013; Kumar & Wiseman, 2021). It states that to improve the quality of teachers, they should be trained and educated by teacher educators who themselves are competent educators and professionally equipped. The framework recognizes the importance of both the initial and continued professional development of teachers, although it places more importance on initial teacher education. Thus, through a single but comprehensive curriculum model for teacher education, the goal of NCFTE 2009 to bring change to teacher education in order to positively impact the whole Indian educational system was introduced (Kumar & Wiseman, 2021).

The Draft National Education Policy (NEP) in both 2016 and 2019 were developed by the Government of India to improve teacher quality and restore the credibility of the education sector in India. Recommendations for the Draft NEP 2016 called, "Some Inputs for Draft National Education Policy 2016," were provided by a high-status committee chaired by former Union cabinet secretary T. S. R. Subramanian. The Draft NEP 2016 was formulated nearly three decades after the previous national policy, NPE 1986. It brought to the forefront the role of education in inculcating values, providing skills, and developing competencies for citizens to improve their individual well-being as well as facilitate the nation's growth. The Draft NEP 2016 emphasized the role of education as a potent tool in the country's socio-economic mobility, prosperity, and equity (MHRD, 2016).

The Draft NEP 2016 framed "quality" education as a combination of localization and globalization enabling Indian children to be global citizens yet maintain their Indian culture and heritage (MHRD, 2016). The Draft NEP 2016 observed that the main challenges to reforming Indian education were a lack of competent and committed teachers coupled with the substandard quality of teacher education and training (p. 170). The Draft NEP 2016 was never legalized as a national policy for reasons not officially disclosed. It was critiqued on the grounds that it provided educational targets or objectives rather than a clear framework on how to improve education quality in India (Kumar & Wiseman, 2021).

In 2018, the Draft NEP 2019 was initiated by the Minister of Human Resource Development, Shri Prakash Javadekar. The goal was to revisit the core tenets of the Draft NEP 2016 and submit a new policy. The Draft NEP 2019 was formulated by a committee under the chairmanship of Dr K. Kasturirangan, the former chief of the Indian Space Research Organisation, with the guiding principles of access, equity, quality, affordability, and accountability (MHRD, 2019). Although the Draft NEP 2019 did not define teacher quality, it emphasized teacher qualities including teacher attitude, teacher qualification, teacher professional development, teacher autonomy, and teacher salary (Kumar & Wiseman, 2021). In an attempt to improve teacher quality, the Draft NEP 2019 recommended improving the teacher recruitment process to include classroom demonstration and interview. It also noted that teacher recruitment in 2019 did not involve any practical training or internship even though teaching is a performative profession (Singh, 2019). As before, the Draft NEP 2019 was not legalized as a national policy and was criticized as being "ambigious." Additionally, although the importance of