Abstract

The fast-approaching 2015 deadline for developing nations to meet internationally-set targets for universal primary education and gender equality has caused governments and development agencies around the world to examine what has and has not been achieved to date. Earlier goals set by UNICEF’s Millennium Development Goals (MDGs) and Educational For All (EFA) initiatives are undergoing a serious re-evaluation. Given that backdrop, this study sought to broaden definitions of educational quality at the primary level in more comprehensive and child-centered terms, taking into account local and regional context factors (namely, historical, governance, economic, cultural-religious, community, and family-based variables). The method employed is a policy theory analysis, based on a literature review relevant to a regional case study focusing on the state of West Bengal, India. The paper uses the case analysis to (a) suggest revised indicators of educational quality, (b) derive a context-based logic model, and (c) recommend two-tiered monitoring strategies that support program development at the community level while meeting macro-level information needs.

Key Words: Education for All (EFA), Context dependent quality Indicators.
The international education agenda was placed at the forefront of political and developmental dialogues of many nations in the developing world, including the focus of the present study, the state of West Bengal in India (Government of India, 2006).

The fast-approaching 2015 deadline for meeting the initial EFA and MDG targets has caused governments and development agencies around the world to examine closely what has and has not been achieved to date, with a serious re-evaluation of goals, quality criteria, and approaches to educational planning, monitoring and evaluation (Aikman & Rao, 2010; Burnett & Felsman, 2012; Lewin, 2011). Given this background, this study asks: Were the initial EFA policy expectations realistic, given the immense diversity indifferent regions struggling to achieve these goals? And, Were the indicators of educational quality, set by international agencies and governments at the macro-level, meaningful and useful in shaping educational development and progress at the local level?

Among the widely-used indicators for global monitoring of EFA policy targets, are the Gross and Net Enrollment Rates (GER, NER) for students, the Gender Parity Index (GPI) for students, and an Educational Development Index (EDI), with EDI representing a composite measure that combines more than one construct or data source (see Lewin, 2011). Because these indicators reflect the most valued outcomes of the international community, including that of donors, they have been rapidly adopted by governments and education development agencies striving towards EFA around the world.

Despite the appearance of objectivity and measurability, however, the GER, NER, GPI and EDI indicators are vulnerable to numerous errors and misinterpretations in applied contexts (see Lewin, 2011). Take for example, the GPI, representing a ratio of the percent of girls to boys who are enrolled in a given year by age, aggregated in or across different grades of primary school (Ministry of HRMD, India (2012), DISE 2010-11-Flash Statistics). Equal educational access and participation are among the most valued criteria of the EFA initiative; hence, the GPI is viewed as one of several key indicators that define educational quality.

The GPI is measured at one time-point of the school year, and has a theoretical ideal of 1.0, indicating that equal percentages of same-age males and females enrolled in school in that year and grade level. Schools are reported to have met the quality criterion of equal participation rates for both girls and boys, when GPIs are at or in the range of 0.90-1.1. When the GPI >1.1 it indicates an imbalance favoring girls; when <0.90 it indicates imbalance favoring boys. Despite its simplicity, however, the GPI can be easily over-interpreted or misinterpreted, and does not connote a high quality schooling experience.

First, the GPI provides no information on whether the initially-enrolled children actually continued their schooling beyond the specific date of data collection. Second, it says little about student attendance—that is, whether those enrolled actually attended school or participated in educational opportunities regularly, as provided through instructional programs. Third, it provides no inkling as to the extent to which enrollment levels—mediated by the school’s teachers, activities, or curricula—led to desired student learning outcomes, as measured on teacher-given or external examinations. Finally, in the event that students—both girls and boys—attended primary schools irregularly despite having free access, the GPI sheds no light as to the barriers to higher student participation levels and engagement in school.

In other words, indicators such as the GPI emphasize countable outcomes that are typically valued at the uppermost levels of national and international policymaking. However, these indicators are rough aggregates, ignoring important local and contextual factors that must be considered in any improvement-oriented evaluation system designed to build better primary schools and programs in tune with the needs of children and families in rural communities (UNICEF, 2006; 2007).

The goals of the EFA and MDG initiatives are laudable and fundamental to fulfilling aspirations of developing nations in a dynamic and globalized world. However, to realize EFA goals and set targets that are achievable, there is a need to redefine educational quality in more holistic and context-relevant terms. Looking beyond 2015, there is a need to re-prioritize criteria and methods for monitoring progress of schools and schooling with stakeholder and community involvement.

Purpose of the Study

The purpose of this study is to re-conceptualize the meaning of educational quality in more comprehensive and child-centered terms, taking into account local and regional contextual factors. The paper focuses on primary schooling in the state of West Bengal, India, as a case study within the national context of Indian education.

Method

The method employed in this study is a policy theory analysis based on a selected literature review relevant to the regional case, West Bengal. As a part of the analysis, the paper compares the rationales underlying internationally-set indicators of educational quality given by the MDG and EFA efforts, against indicators of educational quality based on a comprehensive model of primary education that can support development of the whole child situated in existing family and community structures. This analysis leads to mapping of the underlying assumptions and expectations of the EFA and MDG initiatives in the form of a logic model (Figure 1) (see Donaldson, 2007). It also suggests a revised set of quality indicators for primary education and school monitoring systems.

To start, the paper begins with a discussion of the theoretical and policy frameworks, moving from the international to national, and finally to state and local contexts of policy formulation and implementation. Next, the paper presents a brief discussion of literature on views of comprehensive education of the whole child situated in family and community contexts. It concludes by offering a logic model and broadened definition of educational quality that combines both literature bases. The logic model may be used to guide future program development and evaluation.
Indicators of Quality Based on International Frameworks on Universal Primary Education and Gender Equality

What factors gave the impetus for global EFA initiatives? Cumulative statistics, showing women and children as the major victims of global poverty and vulnerabilities associated with poverty, led the international community to launch multiple initiatives promoting gender equality and universal education (Dasgupta, 1995; UNESCO, 2005; 2007; UNICEF, 2007a-b). For example, two-thirds of the world’s illiterate adults over the age of 15 are women. In some societies, women and girls have limited control over their lives and bodies, leading to inequalities in access to education, nutrition, and health-care with reduced fertility rates. High maternal mortality rates abound in the poorest of nations. Because of institutionalization of patriarchic cultural traditions, women and girls also face considerable discrimination under the law within smaller communities of many nations.

Concerted global responses to the above needs began roughly three decades ago, framing the need for education as a basic human right. Specifically, the Convention on the Elimination of All Forms of Discrimination against Women, adopted in 1979 by the United Nations General Assembly, set down rights for women to have freedom from discrimination and equality under the law. The Convention on the Rights of Children set forth provisions that included civil rights and freedoms for children to have access to family-conducive environments, basic health and welfare, education, leisure and cultural activities and special protection measures for children, both boys and girls. UNICEF’s focus on basic education is rooted in its value of education as a basic human right, which was first established by Article 28 of the United Nations Convention on the Rights of the Child in 1989 (UNDP, 2005; UNICEF, 2006).

Beyond its construction as a fundamental human right, education is also viewed as a prerequisite for sustainable development of nations and for building human capital. Education lies at the base of a child’s social and cognitive development, and is instrumental in lifting social, economic, and cultural barriers to development. Within democracies, improved education and literacy are seen as the primary means to developing individual capabilities necessary for the citizenry to exercise their liberties, rights, responsibilities, and freedom of choice to pursue personal and social goals (Sen, 1999).

Universal education has also been viewed as a means for improving public health by preventing disease, alleviating malnutrition, and mitigating the rapid rate of population growth in many developing countries. Girls’ education is documented to lead to later marriage, and maternal education has been proven to be highly correlated to fewer births, longer life expectancies, lower death rates and better child health (UNICEF, 2007b). Women’s literacy, particularly the mother’s level of education, has been found to impact the quality of child care. Greater literacy levels can potentially allow women to obviate child labor practices, and make better use of public services necessary for improving child care and education. More educated mothers value education for their children. Thus, educating a generation of girls is seen as an investment in education for future generations (Cutler, Deaton & Lleras-Muney, 2006; Khanam & Rahman, 2007).

What was the Vision of Primary Education given by MDGs and EFA? As the lead agency for the U.N.’s Girls Education Initiative (UNGEI), UNICEF responded proactively to the MDGs by laying out a high quality, basic education policy and action plan for implementation. Of the eight MDGs, Goal 2 aimed to “ensure that all boys and girls complete a full course of primary schooling”. Goal 3 sought to “eliminate gender disparity in primary and secondary education by 2005, and at all levels by 2015”. As corollaries, women’s education and empowerment were also targeted so as to reduce levels of child mortality (Goal 4), improve maternal health (Goal 5), and combat HIV/AIDS, malaria, and other diseases (Goal 6) (UNICEF, 2006, p. 5).

Equal access and educational opportunity presuppose that schooling conditions will facilitate children’s overall development and learning. Many children in the developing world attend schools where sexual violence is common, and where students are exposed to severe corporal punishment, insensitive curricula, oppressive teacher attitudes, or unhealthy and unsafe physical conditions. A child-centered and community-based approach to education is repeatedly endorsed in published documents and proceedings of various UN conferences and international meetings among other EFA-promoting organizations (UNESCO, 2005; UNESCO, 2006; UNICEF, 2007a; UNICEF, 2007b).

In speaking directly to the MDGs, Alkire (2004) defined a high quality education comprehensively in terms of the following indicators:

1. Learners who are healthy, well-nourished, ready to participate and learn, and supported in learning by their families and communities;
2. Environments that are healthy, safe, protective and gender-sensitive, providing adequate resources and facilities in which trained teachers teach;
3. Curriculum content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;
4. Child-centered classroom approaches implemented in well-managed classrooms, with skillful student assessment to facilitate learning and reduce disparities;
5. Learning outcomes that are targeted encompass knowledge, skills and attitudes, and are linked to national goals for education, facilitating positive child participation in society.
By adding a programming quality dimension to the MDG framework, UNICEF’s resolve was to address some of the severe problems associated with unequal and inadequate education, and provide girls with better educational opportunities.

**How did international agencies facilitate implementation of the EFA goals?** UNICEF’s implementation model involved provision of support to governments and non-government organizations (NGOs) through field offices, located in the 158 nations and territories, which engage in international media campaigns, procure funding and supplies, facilitate innovative programs and initiatives, and also help monitor programs and report progress (UNICEF, 2006). International donors, NGOs, and various non-profit partners working in concert with the U.N.’s organizations, including the World Bank, facilitated EFA implementation efforts in aspiring nations.

**What were the EFA and MDG Evaluation Criteria?** Goals and targets were articulated at the international and national levels (referred to as macro-system levels here) for tracking progress in individual schools (referred to as the microsystem level). In any given nation/region, educational monitoring objectives in UNICEF’s implementation plan were to be measured against baseline data from 1990, showing whether primary schools and systems were improving over time. To view the international effort in terms of a hierarchical system, one would see a given school as belonging within a regional area, educational system, which in turn would be nested within a larger national system, that in turn, would be responding to consensus-based EFAnitatives of global organizations.

Given this background, therefore, it comes as no surprise that initial criteria for monitoring educational quality were set at the macro-system level, and emphasized measurable outcomes that were time-bound, such as the following (UNICEF, 2006 at http://www.unicef.org/specialsession/wffe/:

(a) reduce the number of out-of-school children by 50%,
(b) increase net enrolment and school participation to at least 90%,
(c) eliminate gender disparities in primary and secondary education by 2005, with full and equal access at all levels of basic education by 2015, and
(d) improve learning outcomes in numeracy, literacy, and essential life skills.

Along the same lines, EFA emphasized a basic education for all boys and girls, evaluated based on measurable criteria like the GPI, GER, NER, and EDI indices, number of completed school years, and student performance on external examinations. While to begin with, the larger and more comprehensive vision of EFAs was indeed for a child-centered education which recognized the local family/community context and the need for educational programming processes to be responsive to local conditions, in operation, educational quality became defined by more easily countable criteria aggregated at the macro-system level.

What were some the repercussions of these internationally-set EFAn Evaluation practices to date on bettering schooling conditions locally? Very little. Critics point out that one side-effect was the ranking of countries or states against each other on indicators like the NER, GER, GPI and such, with public reports comparing and labeling various regions or nations as either stronger or weaker than the rest in terms of educational quality (Subramanian, 2005). Other problems arose.

(a) Given the complex realities of particular regions, the time-bound goals like 2005 or 2015, were unreachable and carried little local meaning.
(b) There was a lack of consistent indicator definitions based on region-to-region differences in data-gathering systems, conditions, and schedules.
(c) Indicator definitions failed to account for local conditions, economies, politics and contextual diversities that would permit more valid inferences about why educational programs were failing to reach expected standards of quality and what could be done to move forward (see Aikman & Rao, 2010; Filmer et al, 2006; Lewin, 2011).

**EFA Indicators of Quality Based on India’s Educational Development and Monitoring Policies**

Let us now move from the international setting to a national EFA implementation case. In India, educating children from age six to 14 is primarily the responsibility of the state government. However, on a national level, India has been addressing issues of education throughout its modern history, setting priorities through the Planning Commission’s five year plans. Goals for universal education pre-date the U.N. initiatives, and the chief programs in effect since 2001 are the SarvaShiksha Abhiyan (SSA, the title translates to Education for All in Hindi) and a concurrent Mid-day Meals Scheme to draw children from needy families to schools (http://ssa.nic.in/ssaframework/ssafram.asp#1.0).

The Government of India has been quite responsive to recent international initiatives, aligning national educational goals with UNICEF’s MDGs and EFA (Government of India, 2006). Educational policies are being implemented through a complex network of central and state governmental agencies, non-governmental organizations, and international institutions, including UNICEF and the World Bank.

Earlier, the National Policy of Education 1986 (NPE), revised in 1992, articulated three main objectives in elementary education: a) universal access and enrollment, b) universal retention of children up to 14 years of age, and c) a substantial improvement in the quality of education to enable all children to achieve essential levels of learning. The 86th Constitutional Amendment Act of 2002 further made education a fundamental right. States were required to provide free and compulsory education to all children ages six to 14. Other statutes that address children’s rights, although not aimed directly at education, have also contributed significantly to the improvement of girls’ participation in education. In 1989, for example, India invoked the Child Labor Law that made the employment of children less than 14 years illegal, except in family owned factories (Aggarwal, 2001; Government of India-Planning Commission, 2006).
**SSA Implementation and XIth Plan.** The main thrust of SSA implementation in the XIth Plan (2007-12) has been on quality of education and infrastructure improvement within an overall framework of equity. Special attention is to be paid to girls in specific social groups that are especially deprived, in regions where the educational status of women continues to be poor, namely—Scheduled Caste (SC), Muslim communities, Scheduled Tribe (ST), and Other Backward Classes (OBC). The XIth Plan acknowledges the need for the government to work with other agencies to achieve goals, including NGOs, private-public partnerships, and international organizations.

To encourage higher enrollment and retention of girls in the school system, the plan calls for the strengthening of the formal school system through improved accessibility to schools, infrastructure improvement by including sanitation facilities for girls, and improving the quantity and quality of teachers at schools, with an emphasis on female teachers. The call is to particularly increase the pool of educated and trained women teachers among SC, ST, specific OBC and Muslim minority communities (Government of India-Planning Commission, 2006).

The XIth Plan Working Group Report also urged the central and state/union territory governments to increase spending in education in terms of real per-pupil expenditure as a percentage of the Gross Domestic Product (GDP). Expenditures on elementary education in some states were reportedly stagnating in the implementation period of the Xth Plan. At present, the public spending on education is about 3.7 percent of the GDP. Although this is an increase from the 1.4% recorded in the 1960s, the Report urged the national government to fulfill its promised share to 6 percent of the GDP in a phased manner (Government of India-Planning Commission, 2006).

Highly consistent with UNICEF’s perspective, the XIth Plan Working Group report comments that the discourse on girls’ education has not moved significantly beyond countable notions of parity (gender parity in enrolment) while issues of educational quality, classroom practices and gender equality inside the classroom have remained untouched. Others observers agree on this point. According to Ramachandran (2000), implementation of SSA during the previous Xth Plan period brought about impressive growth in the enrollment of girls and reduction in gender gaps in enrollment and dropouts, yet current trends indicate that India still has a long way to go before gender and social gaps are truly bridged on more comprehensive educational indicators.

The XIth Plan report thus strongly encourages states to refer to the National Curriculum Framework (NCERT, 2005a; 2005b; 2005c) for guidelines to develop their own curricula and syllabi. The construction of a “child-centered” environment, where rote practices are replaced by participatory approaches, and where girls’ needs are addressed equally was a main emphasis. Gender sensitivity was to be integrated into both teachers’ in-service training and preparatory programs to prevent bias in teacher attitudes. However, the capacity of West Bengal (the case in the present study) to implement the XIth Plan in providing high quality education to all of its children and youth has been questioned by the educational research community.

**Evaluation Criteria and Monitoring Practices in India.** The Indian government’s commitments towards the establishment of formal data collection and monitoring effort on a national and regional scale are overseen by the Ministry of Human Resource Development (MHRD) through the District Information System in Education (DISE). But, the vision of universal elementary education has been difficult to realize across the populous and diverse Indian subcontinent, according to researchers (Aggarwal, 2001; Mehta, 2010 for national and regional reports). Nationally, progress towards educational goals continues to be tracked through a number of mechanisms, including the DISE reports, periodic surveys conducted by the National Sample Survey Organization (NSSO) and 10-year censuses.

The 2001 census based on household surveys had shown very small male-female disparity and reductions on literacy in both India and West Bengal, the specific regional focus of the present study and only Bengali-speaking state in India. The raw count of illiterates increased from 305 million to 329 million between 1991 and 2001 as the nation’s population size grew to over 1 billion (Aggarwal, 2001). Thereafter, the mission for attaining universal elementary education was reiterated by India’s government through the SarvaShiksha Abhiyan (SSA) program.

The original targets of SSA were to achieve universal primary education by 2007, and universal elementary education by 2010. Reporting of progress towards such targets is broken down by state in DISE reports, which have been published through a national agency (NUEPA, that reports to the MHRD) in 2004 and again in 2011-12. As of 2003-04, many regions in India were still struggling to meet these targets (http://ssa.nic.in/ssafram.asp#1.0; Mehta, 2004a; Mehta, 2004b). Individual state participation has increased greatly, with states reporting the data and certifying its accuracy, and NUEPA maintaining the national database and publishing periodic statistical reports.

Quality indicators are numerous (93) in the recent DISE report (DISE 2010-11, *Flash Statistics*). They include number and types of primary schools, enrollment levels, grade repetition rates, dropout and transition rates, density of schools per 10 sq. km, number of instructional days, student- classroom and teacher-pupil ratios, training and diverse representation of teachers, availability of books and computers, and presence of facilities like concrete classrooms/buildings, toilets, drinking water, playgrounds, and kitchens.

The NER, GER, GPI and an EDI are also reported for each state. The EDI in DISE reports is based on a factor-defined composite index based on a set of 20 indicators that focus on school access, infrastructure, teachers and teaching conditions, and student-level outcomes. The 35 participant states were recently ranked on the composite EDI indices (DISE2010-11, *Flash Statistics*). It should be noted that this broader EDI definition in India varies from international definitions of the EDI, which are weighted primarily on measurable student outcome indicators (Lewin, 2011).
Consider now the case of West Bengal within India in terms of EFA policy implementation, accounting for regional demographics, politics, and history. West Bengal is the most densely populated state in India, and 72.5 percent of its population are Hindus. Muslims comprise 25 percent; Sikhism and other religions make up the remainder. Agriculture continues to be the leading occupation in West Bengal, although the state is being gradually industrialized since the 1950s. Disadvantaged groups (SC, ST, OBC) form 28.6 percent of the population. The proportion of people living below the poverty line in 1999–2000 was 31.85 percent. This figure is higher than the poverty rate reported for the nation during the same period, which was at 24% (Government of West Bengal, 2004; Guruswamy & Abraham, 2010).

To understand the extent of poverty in West Bengal in international terms, it should be noted that the “poverty line” above is defined by the Government of India based on an extremely low threshold relying on regional norms for food consumption. In 1999-2000, the poverty line was estimated by India’s Planning Commission at Rupees (Rs.) 327 and Rs. 454 per month per capita in rural and urban India, respectively. Adjusting for inflation, the figures amounted to Rs. 368 and Rs. 559 per month (see Guruswamy & Abraham, 2009). The exchange rate in 2007-08, the time-point of this study, was about Rs. 45 to 1 USD; in 2013, it is Rs. 52 to 1 USD. In forthcoming national studies sponsored by India’s Planning Commission, an updated definition of poverty is expected to be implemented that accounts for consumption of food, healthcare, shelter and education (Chauhan, 2008).

Over time, West Bengal has been undergoing urbanization with two patterns of demographic migration: the influx of the rural population into the cities, and inter-regional migration from neighboring states and nations, such as Bihar, Jharkhand, and Bangladesh. Because migrants tend to be much poorer and far more illiterate, they have insecure forms of employment. The intra- and inter-regional migration, therefore, has important ramifications for the goals of universal education and gender equality, posing severe barriers to reaching highly disadvantaged and mobile migrant groups through government and government-aided schools (Ramachandran, 2000).

West Bengal’s previous 33 year Left Front Government was generally acknowledged as a political entity that worked on behalf of the poor, but according to Sengupta and Gazdar (1997) the state’s political will had not extended to wider public action in the sphere of social services. Thus, the state was unable to generate the public action to push universal access to primary education and primary health care, as found in more progressive Indian states, such as Kerala. Nor has there been a clear and positive educational policy implemented in favor of girls (Sengupta & Gazdar, 1997).
small compared to other states. During 1995-2000, on average, the state of Assam devoted 5.8 percent of SDP to education, Bihar allocated 5.4 percent, and Rajasthan dedicated 4.7 percent, whereas West Bengal’s allocation was only 3.8 percent. Agarwal (2001) projected that the national allocation should be increased from the targeted 6% to 8% with better mobilization of resources from the macro-system to micro-system levels of the Indian system to correct for imbalances.

**Primary School Evaluation and Monitoring**

There is little or no oversight of government and government-aided primary schools by the state government. Nationally, West Bengal was among the handful of state participants in the second phase of national data collection via the 2004 DISE under the education monitoring infrastructure set up by the MHRD of the Government of India (www.dpep.gov). Results have been mixed and contradictory over time for West Bengal, on DISE indicators.

West Bengal’s 2004 DISE reports showed the performance of primary schools, in aggregate, to be far better than that of many other Indian states on several educational indicators. As indicated earlier, West Bengal’s 2003-04 GPI value was reported to be high at .98 on enrollment. The teacher-given examination pass rate was reported at 94%, suggesting that girls and boys were not only enrolling in similar numbers, they were also performing very well when they exited primary school. Upon deeper examination, however, the actual pass rate for girls and boys together in Grade 5 using a 60% correct cut-score, was reported to lie at only 36.5% (see Mehta, 2004b).

However, the 2010-11 DISE report showed more sobering results. This was by far the most large scale data set with 75,151 of West Bengal’s primary schools participating. The state’s rank was reported to be among the lowest on the EDI indices compared with other 35 states and union territories (EDI values range from 0-1, with values closer to 1 indicating better overall educational quality). The demerits of ranking states against one another are many as Indian states vary greatly on governance, linguistic, religious and other variables. But, it is useful to review the 2010-11 DISE results vis-a-vis the main premise of this paper.

For upper primary schools serving grades 2-4, West Bengal’s EDI on access was .311 with a rank of 34 out of 35 (indicators included% of habitations not served, # schools per 1000 children, ratio of upper to lower primary schools, etc.); on infrastructure, the EDI was .650 with a rank of 27 out of 35(indicators included student-classroom ratio, drinking water, toilet and girls’ toilet facilities, etc.); on teachers and teaching, the EDI was .646 with a rank of 26 out of 35 (indicators included % schools with female teachers, schools with teacher-pupil ratio > 40, teachers without professional qualifications, etc.); and on student outcomes, the EDI was .676 with a rank of 26 out of 35 (indicators included GER,GPI, minority enrollment rates, dropout, transition and grade repetition rates and so on).

**Towards Comprehensive and Child-Centered Definitions of Education Quality**

The global and Indian aspirations of EFA contrast sharply with the data on actual outcomes achieved to date in West Bengal, the regional case examined in this paper. What would be a compatible view of early education that can be coupled with an implementation model and evaluation system that could facilitate EFA goal achievement locally? This section briefly discusses the notion of “comprehensive early education”.

A comprehensive view of early schooling is child-centered and adopts a broader ecological model of early education and development. An ecological model takes into account key environmental factors, both at home and in the larger community, that may help or hinder a child’s all-round development and potential readiness to engage and succeed in school. This approach has been recommended by several early childhood advocates and experts, particularly for socio-economically disadvantaged and migrant communities (Gordon & Rebell, 2007; Phillips & Zigler, 1987; Rimm-Kaufman, Pianta, & Cox, 2000).

The concept of Comprehensive Education can also be found in Cremin’s (1975) writings from Teachers College, Columbia University, pointing to the combined influences of families, schools, and the community on an individual’s life and “outcomes” at different times. Defined comprehensively, the term outcome refers to a person’s development in all spheres—physical, health, social, emotional, cognitive and non-cognitive areas. In primary school contexts, such outcomes are expected to result from exposure to either organize or informal events that happen earlier in school or in out-of-school settings. In looking at a child’s schooling outcomes comprehensively, therefore, one must take into account a child’s earliest experiences from the time of birth through school entry, in their home and community settings as these influences interact with larger national or state education initiatives.

Chatterji, Iyengar and Koh (2009) cataloged variables in a child’s life that can be expected to affect readiness for and success in formal school in a comprehensive sense. These included (a) health and nutrition factors; (b) family legacies, traditions, values and home environment variables; (c) informal or incidental supplementary education supports that parents opt to use either in their homes or in the larger community; and (c) formal preschool or school experiences. In other words, a child’s success in the world is contingent on access to both formal and informal education from the earliest years. Families that are able to expose their children to various informal and cognitively stimulating activities from birth (e.g., visits to the library, park or zoo, singing, playing, story-reading), give children an advantage in school. Such experiences predispose children to continue in school supported and encouraged by their families.

Religion may also play a key part in a child’s education and how far they aspire to go. Some religious traditions may place restrictions to freedoms and opportunities for boys or girls; others do not. The comprehensive early education literature recognizes that “all children and youth have certain basic developmental needs that could be met through
their cumulative involvement in several social contexts.” Multiple contexts—family, school, church/temple/mosque, job, neighborhood)—“inform and are informed by the needs of connected actors (parents, peers, teachers, employers, neighbors)” who aid in the education of a child in holistic terms (Chaskin & Richman, 1992, p. 109).

The view of education at the primary level given by international and national EFA initiatives appears to be closely aligned with this child-centered, comprehensive view, which acknowledges the role of the family and community contexts as a part of a larger national and regional system of education. The school cannot educate a child alone; but it can and typically does serve an important role in a community-based system of comprehensive education.

If such a context-based and holistic framework is accepted, the design and implementation of monitoring systems for primary education must incorporate a few key ideas and constructs from this literature base. The following section presents a logic model (Figure 1) to guide formative and improvement-oriented evaluation systems for primary schools that accounts for family and community, within an international and national framework.

A Logic Model Depicting EFA Policy Theory and Assumptions

Given the literature review, Figure 1 maps the assumptions and logic underlying the international EFA and MDG efforts, along with India’s parallel SSA initiatives launched to achieve school-level outputs and measurable student-level outcomes through West Bengal’s state education system. Figure 1 shows the main forces that were expected to be operating at different levels, analyzed and sorted as context, input, process and outcome variables. In the evaluation sciences, logic models are used for guiding the design of effective assessment and monitoring systems (Donaldson, 2007).

International and National Influences

Context variables (Figure 1, left panel) are defined here as exogenous factors beyond the control of the regional education system and individual schools, that could influence educational resource distributions, how schools are run, schooling conditions and resulting school- and student-level outcomes. Based on the literature, international context factors that led to the thrust for universal and equitable education were global and regional statistical trends showing women and children at a marked disadvantage in poor, marginalized communities and nations. This trend led to an international commitment to universal education and gender equity culminating in the MDGs. India’s emergence as a secular, democratic nation in 1947 coupled with a national recognition of the role of education as a basic right and means for sustainable development led to successive 5-year plans that influenced regional agendas, including that of West Bengal.

These contextual factors led to several international and national actions to allocate resources (input variables—Figure 1, middle panel) with initiation of accompanying programs by international agencies and the Indian government (process variables—Figure 1, middle panel). In India, the SSA, along with the SSK in West Bengal, are among key educational programs that were expected to influence children’s outcomes in government schools. To improve reach, numerous formal and non-formal programs evolved to support the government’s efforts, run by NGOS, private-public partnerships, and national and international organizations.

Per the Indian Planning Commission’s 5-year plans, implementation of these programs in states such as West Bengal (see shaded boxes, Figure 1) were expected to lead to improved school practices and outputs in three main areas of concern highlighted in legislative and policy documents: teacher quality (TQ), infrastructure of schools (I), teaching practices and classroom environments (TP). These inputs and processes, in turn, were expected to engender certain student-level outcomes (OT) at individual schools (see Figure 1, shaded boxes in right panel).

Regular evaluation and monitoring of schools and schooling conditions through DISE state reports (Mehta, 2004a; 2004b; 2012) and activities of agencies like the NSSO, were expected to facilitate a looping back and utilization of evaluation results into the policy and programming boxes. Such feedback loops were expected to potentially allow
for continuous improvements, adjustments and ongoing appraisals of the education system leading progressively towards EFA goal attainment (see feedback arrows).

The implications of the system as it now operates, shown with directional arrows, are that with data in hand, regional schools would gradually develop the necessary infrastructure and build resources, teacher capacity, goal awareness and community buy-in, to reach these targets. State resources and national inputs would support school-level goal attainment. (Figure 1). Together, these activities would lead to improvements in both school level outputs and student outcomes (see right hand boxes).

Adding the Regional and Family -Community Context

Were the EFA evaluation system and expectations realistic for West Bengal? As obvious, the community -family context was not sufficiently considered in the national school monitoring model, which aggregated data at the macro-level, ignoring community- and school-level processes as they led to outcomes. Currently there is little by the way of an evaluation and monitoring model in the state. If the literature on a comprehensive and community-based view of education is considered, the box listing Family and Community factors under Context Variables would also be a part of the evaluation system, as shown in Figure 1. Note that only a few Family and Community variables have been selectively excerpted from the comprehensive education literature as an illustration in Figure 1 (Chatterji, Iyengar&Koh, 2009).

In theory and as the arrows suggest, Family and Community factors would influence the Input (resources are allocated to schools) and the program Process boxes (school infrastructure, activities and environment), and in turn, the Outcomes (indicators of student learning and development). In the logic model, student outcomes represent all-round development of the child, including factors like enrollment levels (NER, GER, GPI and so on).

The logic model can be used for planning and implementation of education programs as well as comprehensive evaluation systems that gather relevant kinds of data from various levels of the multi-level system at different times — schools, districts, state, nation. At suitable points, instruments may be designed to gather data on different variables and indicators of educational quality, either as a part of formative or summative program evaluation studies (Chatterji, 2004).

Why do family and community matter in the guiding framework (Figure 1) used in India for defining and evaluating educational quality? Government schools in India and West Bengal serve the poorest and lowest socio-economic strata of society who cannot afford a private education. The family’s level of poverty, mobility and uprooting patterns, religious and cultural legacies for educating boys versus girls, all factor into the extent to which parents would see meaning and relevance in a government school’s programs. Family values, legacies and traditions — along with economic freedoms that parents have play a significant part in whether and how long a child will be able to freely attend and participate in formal schooling in regions like West Bengal (Chatterji, Iyengar&Koh, 2009). These variables must be accounted for in a useful school monitoring framework.

Conclusions and Future Directions

International EFA Goals: Laudable Ends, Incompatible Means

Indicators of educational quality and accompanying evaluation systems, forwarded by global donors and organizations, have a powerful influence on education stakeholders in developing nations who seek out and need the supports. Outside bringing in valuable resources, they shape priorities and strategies for EFA goal implementation and evaluation. Such international commitments should continue.

Beyond 2015, however, new thinking must be directed towards broadening definitions of educational quality and developing two-tiered evaluation systems that foster community-based program development while meeting national/international accountability needs.

As obvious from the literature discussed, international EFA goal frameworks have endorsed child-centered, holistic and context-based views of education. Yet, the accompanying monitoring systems and criteria for tracking educational quality have been limiting, and are presently incompatible with the original vision of EFA. Ideally, school evaluation and monitoring systems for EFA initiatives should be multi-level (see Figure 1), placing the development of children first, with the understanding that a school’s influences on outcomes are mediated by communities and families served by primary schools.

India as a National Case

On paper and from the start, the Indian government’s political energies and goals for social and economic progress are well-aligned with international EFA initiatives. Particularly, the Indian government’s steps in creating an overall SSA framework; promulgation of laws/policies and establishment of agencies to aid in curriculum development, teacher training and evaluation; and provision of support systems like the mid-day meal program, have set out a clear EFA agenda for states to follow (Dreze&Goyal, 2003; Government of India, 2006).

Despite such efforts, and 60+ years after independence, progress in basic primary schooling is still very uneven across states. School evaluation and monitoring systems — possibly partially-funded by international donors — currently follow a pre-packaged and limited international model that also operates mainly at the macro-system level. This monitoring system has been unable to improve conditions in primary schools in a vast majority of states and communities (see Ministry of HRMD, 2012, DISCE 2010-11 Flash Statistics).

What is needed is a complementary and two-tiered approach to school evaluation for improving the status of primary education from the ground-up. Looking forward, therefore, school-based case studies would be a useful added component to the primary school monitoring effort, guided by a comprehensive logic model similar to Figure 1. Development and implementation of both evaluation systems and programs should occur through ongoing exchanges with regional stakeholders.
Periodic case studies of schools would involve integrative analyses of quantitative and qualitative data collected from different sites. A multiple case study approach will complement large scale data-gathering systems from DISE and other national surveys. This will permit cross-site triangulation to derive common and unique findings. Reports should ideally be fed back to schools, regional and community stakeholders in a timely manner to facilitate involvement, planning and improvement of conditions (Patton, 1997; Stake, 2006).

*West Bengal as a Regional Case*

The public are key stakeholders of the government or taxpayer-supported education systems, along with leaders, teachers, families and the larger community involved in the schools. In theory, therefore, educational stakeholders in democratic societies would help build schools and school systems, take ownership of its programs and policies, and remain engaged in shaping their destiny.

In West Bengal, however, there are real barriers to this ideal. The stakeholders who need free primary schools for their children are frequently the migrant, poor and illiterate—leading to a lack of awareness of their own rights and their children’s rights to education. Depending on community needs, school leaders and teachers, along with the state and national media, might begin to play a part in building *stakeholder awareness* on such matters (Government of West Bengal, 2004).

The literature reviewed on West Bengal shows that historical, governance, economic, cultural-religious, community, and family-based variables all matter in establishing and sustaining an effective primary education system. Because primary and secondary education is a state government responsibility, *political priorities* set by the state determine the amount of resources allocated towards improving government and government-aided primary schools towards reaching *EFA* goals.

The state’s high *poverty* is a concern. This need provides an opportunity for regional, national and international dialogue on strategies for poverty alleviation and economic development in the state’s rural and urban communities, in concert with the goals of education development in the state. In theory, *decentralized systems* provide more autonomy to states, and allocation of a higher percent of the GDP towards primary education should be a public concern (Government of West Bengal, 2004).

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The logic model (Figure 1) derived from the literature is systems-based and community-oriented, highlighting several context-relevant variables that must be accounted for in helping primary schools succeed in their mission. It suggests that families and communities of children served by schools would be critical actors in achieving *EFA* goals and outcomes in the region. If adopted by stakeholders, the logic model may be useful in opening a discussion to guide the design of programs, implementation and formative evaluation systems. Transparent monitoring, evaluation and stakeholder participation in data use are well-documented to improve community schools and programs (Chatterji, 2004; Cousins & Earl, 1995; Patton, 1997).

Ongoing *parental orientation, education, and supports* must be prioritized in still-developing, high poverty and rural regions, as the literature on both comprehensive education and international development underscores (Chatterji et al, 2009; Derne, 1994; Kabeer, 1994a-b; Khan, 1993; Khauam & Rahman, 2007). Some communities may have occupational needs, ways of life, beliefs and traditions that are incompatible with models of formal schooling found in government schools.

*References*


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FIGURE 1. Education for All - A Logic Model to Guide Implementation and Evaluation of Primary School Programs in West Bengal, India