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QUALITY EDUCATORS FOR EVERY CHILD: A PILOT PROFESSIONAL DEVELOPMENT INTERVENTION IN BANGLADESH

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ABSTRACT: *Over the past two decades, best practice teaching methods have been the subject of education reform around the world. Quality Educators for Every Child (QE4EC) was an exclusive intervention in Bangladesh aimed to deliver flexible professional development for primary school teachers, focusing on pedagogical skills in the classroom (how to teach) rather than subject skills (what to teach). The endline study focused primarily on the three National Teaching Standards (Pedagogical Knowledge, Classroom Management and Assessment) and sought to measure change and improvement against the benchmark of teacher competencies established during the baseline study. This study highlights the findings from the endline survey and presents background information on the quality of education and teaching in Bangladesh. Endline findings are organized according to the three national teaching standards of focus. Finally, presents recommendations for the teachers and head teachers of the primary schools, as well as policymakers and education administrators in Bangladesh.*

KEY WORDS: Bangladesh, Educators, Teachers, Intervention, Child

INTRODUCTION

The quality of primary education has become one of the Government of Bangladesh's major priorities in recent years. With one of the world's largest primary education systems, the country has approximately 22 million primary school learners and nearly half a million teachers in over 100 thousand primary schools, of 13 different types, around the country (NSA, 2015). While there has been remarkable progress in recent decades, particularly in terms of equitable access to school, the *quality* of primary education remains a major challenge. Indeed, studies show that a large portion of children are not attaining the basic learning standards set forth by the National Curriculum and Textbook Board (NCTB) competency-based curriculum.

While there are many factors that impact the quality of education, research consistently shows that teacher quality is the sing most important in-school factor that affects student learning (Hanushek et al., 2004; Rivkin, 2004; McKinsey & Company, 2007); Darling-Hammond, 2000). Furthermore, the Education 2030 Framework for Action stats that quality education requires "relevant teaching and learning methods and content that meets the needs of all learners, taught by well-qualified, trained, adequately remunerated and motivated teachers." Thus, it is crucial to provide teachers with the training and support they need to provide a high quality education for all.

Quality Educators for Every Child (QE4EC), implemented from November 2016 to December 2017, aims to deliver felxible professional development for primary school teachers, focused

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on pedagogical skills (how to teach), rather than subject skills (what to teach). Focused on transferable and multidimensional skills QE4EC brings together 'traditional' teachers training interventions, newer approaches using technology, peer-to-peer learning, and coaching. Aligned with the National Teaching Standards, QE4EC aimed to reform typical workshop-focused teacher professional development into a multi-faceted, yet integrated model that incorporated ICT, through video observations, tablets and text message support, and school-based support, which included coaching and peer learning opportunities. Moreover, teachers' performance and progress were carefully monitored and assessed throughout the duration of the project so that teachers themselves could self-direct their learning by bulding on their strengths and recognizing their areas for improvement.

Through QE4EC, approximately 65 teachers were provided with individual support, tailored to individual objectives, through class observations, feedback, coaching and group training sessions. Additionally, this project introduced peer-to-peer support and learning through communities of practice, such as the PREQUIP methodology and coaching initiatives. In short, QE4EC encouraged teachers to work together to build a stronger pedagogical team at the school level so that they are able to take ownership of their own professional development as well as support each other more effectively. The overall objective is to upgrade three of the national teacher's standards through a multi-dimensional professional development training programme focusing on transferable skills with the aim of improving the learning outcomes of primary grade children in Bangladesh. At the end of the pilot, the expected outcomes were: Improved quality of classroom teaching and learning, teacher support systems strengthened and concrete evidence of the value of the new Teacher Professional Development (TPD) approach.

This article presents the findings from the endline evaluation, conducted in October 2017 in the 15 pilot project schools and 10 control schools in Rangpur distrct, Bangladesh. Employing a mixed-method approach, this study assessed to what extent teachers changed and improved, gainst three specific National Teaching Standards (pedagogical knowledge, classroom management and assessment), through their participation in the QE4EC professional development program. This article first highlights the education context and rationale for the QE4EC project. Next, this article presents the QE4EC approach to teacher professional development. Third, this article presents th methodology and findings from the endline evaluation. Finally, this article offers recommendations for teachers and head teachers, as well as policymakers and education administrators in Bangladesh.

Background and Rationale For The Study

Multiple assessments and studies show that a large portion of children in Bangladesh are not attaining the basic learning standards set forth by the National Curriculum and Textbook Board (NCTB) competency-based curriculum.

According to the ***Campaign for Popular Education (CAMPE***), Education Watch Competencies Achievement Test, of the 27 competencies for Grade 5 primary school children, the mean was 20.1 in 2014. Children from the poorest quintile achieved 17 or fewer competencies, compared to quintile five children, who achieved 25 or more competencies. As such, disadvantaged and marginalized children are at a much greater risk of not attaining basic educational outcomes. Results likewise varied by type of school. For example, children in low-fee private schools (kindergartens) achieved 23.4 competencies, on average, compared to a

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mean of 18.3 competencies among children in newly nationalized primary schools (NNPS). Figure 1 highlights the mean number of competencies, by school type.

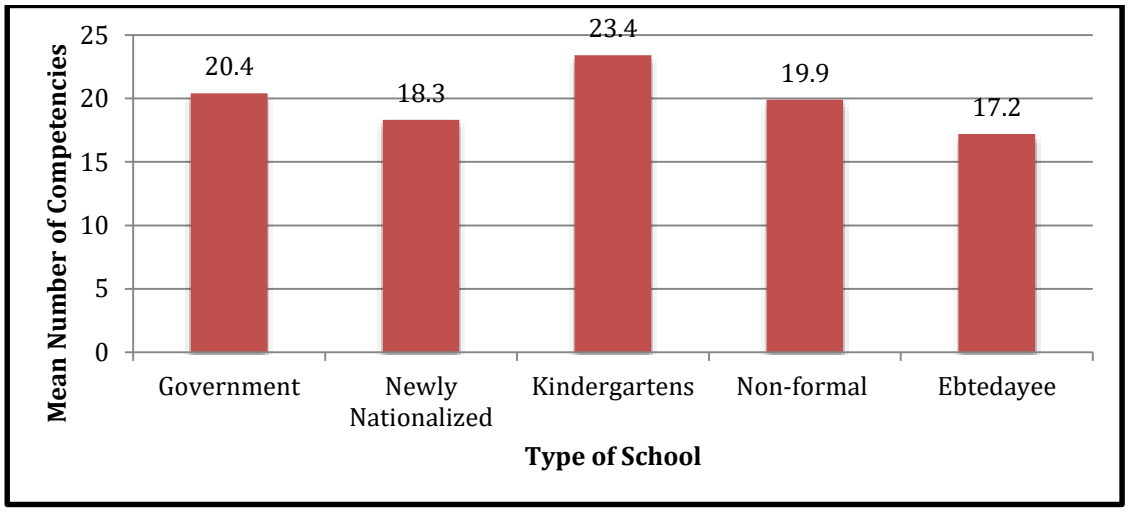

Figure 1: Mean Number of Competencies Achieved, by School Type, 2014

Source: CAMPE (2015). Education Watch Report.

Thus, learners, especially in NNPS and madrassas are not attaining many of the basic education competencies by the completion of Grade 5. Moreover, while approximately 87% of children survive to Grade 5, the rate varies by type of school. For instance, the Grade 5 survival rate in GPSs is 86.3%, compared to 86.8% in non-formal schools and 63.3% for newly nationalized schools. In short, it is clear that there are quality-related issues, particularly in newly nationalized primary schools, and students are not obtaining the educational skills they need to realize their fullest potential.

Formerly registered ***non-governmental primary schools, NNPS,*** have traditionally faced a variety of challenges in delivering quality education. With limited and inadequate infrastructure, and fewer qualified teachers, learning outcomes are likewise typically lower, compared to GPS and other types of primary schools. Teachers in NNPS also have lower academic and professional qualifications, in comparison to their counterparts in other types of primary schools. As highlighted in Table 1 below, the majority of teachers in NNPS have a secondary or higher secondary education at most, while approximately 22% have a Bachelor degree. Conversely, teachers in GPS have higher education qualification- 40.9% of GPS teachers have at least a Bachelor degree, while 26% have a Master degree.

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Table 1: Percentage Distribution of Teachers by Academic Qualification

	School Type				
Level of education	GPS	NNPS	KG	Non-formal	Islamic
Secondary	7.0	33.4	6.2	41.4	12.0
Higher secondary	26.0	40.5	37.3	50.6	39.6
Bachelor	40.9	21.9	40.7	6.8	28.2
Master	26.0	4.2	15.8	1.2	20.3
Total	100.0	100.0	100.0	100.0	100.0

Source: CAMPE (2015). Education Watch Report.

As highlighted earlier, teacher quality is the most important in-school factor affecting the quality of student learning. Competency-based teacher education is a widely used approach (UNESCO, OECD) that seeks to define the competences for teachers that are necessary to ensure that learners become citizens with 21st century skills. Competence is defined as "the possession and development of a complex combination of integrated skills, knowledge, attitudes and values teachers need to contribute effective teaching and learning displayed in the context of their specific classroom conditions." Competence frameworks are particularly useful for guiding professional development approaches and evaluating the quality of teachers (Education International & Oxfam Novib, 2011).

First launched in 2012 in seven Primary Teacher Training Institutes (PTI), the DPEd has since been implemented in all 57 PTIs in Bangladesh. The DPEd focuses on the development of both teachers' professional knowledge and ability to create an enabling classroom environment and deliver engaging, interactive and inclusive lessons. To obtain a DPEd, a teacher needs to have a higher secondary school certificate. As highlighted in Table 1 above, 33.4% of teachers in NNPSs have below a higher secondary school certification. As such, it is crucial that NNPS teachers upgrade their knowledge and skills, which will in turn positively impact student learning outcomes.

Indicators of Quality Educators for Every Child Intervention:

In conjunction with the Government of Bangladesh, Save the Children piloted QE4EC as a new model of teacher professional development in Bangladesh. Defined by the National Teaching Standards, QE4EC focuses on: pedagogical skills, and integrates ICT, school-based support, and a feedback-centered assessment mechanism.

The QE4EC project consists of the following key activities:

Training

The teacher training programme, conducted over six days and facilitated by Save the Children with the support of government (PTI, NAPE) was designed to be participatory and interactive, focusing on practicum sessions rather than theoretical discussions. Specific topics include basic pedagogy of the teaching-learning process, day-to-day school management, monitoring and supportive supervision.

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Peer-to-Peer Observations

The purpose of 'peer-to-peer' observations is to guide teachers through self-reflection and foster a culture of shared learning. Through this activity, one teacher conducts class while the second teacher observes the class, capturing a video on the tablet. Then, the teachers briefly analyze the findings, identifying what went well and some specific areas for improvement.

Coaching

The purpose of coaching is to create a culture in which head teachers, as coaches, guide, motivate, and support teachers, working with them to identify challenges and, together, create solutions.

Cluster Meetings (Community of Practice)

Clusters are organized with teachers in the five nearest schools and the hosting school's head teacher facilitates the meeting. Typically held three times a year, QE4EC sought to foster a more consistent and frequent community of practice for better peer support for teachers. Each month for one weekend day, teachers participate in the meetings and have the opportunity to discuss their recent challenges and other emergent topics.

Text Messaging

The aim of text messaging is to encourage teachers to participate in all professional development activities and opportunities, remind them about forthcoming events, and provide helpful recap tips and positive feedback.

Each of the above-mentioned activities is designed to reinforce the other activities. As a multi-dimensional and complementary model, QE4EC strives to provide teachers with ongoing support, through in-person training, a collaborative culture, and stronger leadership and guidance.

Objective of the Study

The objective of the endline study is to examine improvements in the quality of teaching in newly nationalized government primary schools (NNPS) in Rangpur district, Bangladesh, against three National Teaching Standards, focused on pedagogical knowledge, classroom management and assessment skills. In addition, this endline study seeks to:

- To measure the added value of the Teacher Professional Development (TPD) programme, measuring the skill of teachers against the baseline value about the three national teachers professional standards (pedagogical knowledge, classroom management and assessment).
- To gain an understanding of the factors at the school level and among training institutions that help or hinder teachers to progressively improve their teaching practice.
- To gain insights into programme design that could inform other contexts seeking to develop pathways of professional development for teachers.

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METHODOLOGY

This endline study employed a mixed-method approach using a quantitative approach through classroom observations and self-assessment of teachers, and a qualitative approach through in-depth interviews with teachers, head teachers local education administrators and students. Using a variety of instruments allowed for methodological triangulation to achieve greater validity and reliability and helped to better understand what factors enabled and motivated teachers to improve their pedagogical skills. Moreover, the study included a document review of project and government reports, including a recent review of teacher education trainings and discrete projects under PEDP 3 (***MourieNishadChowdhury, 2016).***

Quantitative Data Collection

Across the 15 project schools, we collected quantitative data for all 64 participating teachers. Specifically, we used two methods: classroom observations and teachers' self-assessment questionnaires.

Class observation: The observation guide is primary quantitative and utilizes a four-point matrix, in which teachers' skills are assessed as 'weak', 'moderate', 'good', and 'very good' (see Annex A). For example, we examined to what extent children were engaged in lessons/activities. Using the four-point matrix, teachers' pedagogical approaches to engaging children were assessed as follows:

Weak (1)	Moderate (2)	Good (3)	Very good (4)
<50% of learners are not actively involved in learning tasks	Some (50-70%) learners are actively involved in learning tasks	Most (71-90%) learners are actively involved in learning tasks	All (91-100%) learners are actively engaged in learning tasks

A total of 64 teachers' classes were observed in project schools, and in control schools, a total of 28 teachers were observed.

Teacher's self-assessment: The teacher self-assessment questionnaire allows teachers to report on the frequency with which they use various pedagogical strategies, classroom management techniques, and assessment approaches in their classrooms.

A total of 64 teachers in the 15 project schools participated in self-assessment. In control schools, teachers did not participate in the self-assessment, as we sought only project school teachers' perceptions, attitudes and beliefs in an effort to assess teachers' satisfaction with the QE4EC model.

Qualitative Data Collection

In order to learn more about teachers, as well as to triangulate our quantitative findings, the study engaged various stakeholders throughout the research process. In particular, this study conducted in-depth interviews with education administrators, head teachers, teachers, and students in select schools.

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Table 2: Study Sample size as per groups

Instrument & Participant	Project Schools (Intervened)			Control Schools (Non-Intervened)		
	Total (N)	% Female	% Male	Total (N)	% Female	% Male
Assistant teachers	62	45	55	10	53	47
Classroom observations	64	45	55	28	46	54
Self-assessment	64	45	55	--	--	--
Interviews	10	60	40	--	--	--
Head Teachers (interviews)	11	21	79	5	40	60
Students (Classes 1-3)	60	48	52	--	--	--
	Total (N)		% Female		% Male	
Teacher Educators/Administrators	4		25		75	
AUEO	2		0		100	
Master Trainer	1		100		0	
URC Instructor	1		0		100	

Research Site and Data Collection

The endline study was conducted in 15 schools in Badargonj Upazila in Rangpur District, where QE4EC was piloted. Experienced external research assistants were recruited and hired to collect data in October 2017. Five teams, consisting of two members each, carried out the data collection process. Prior to data collection, research assistants were provided with a four-day in-house training on the tools and process. All tools were piloted, pilot data were analyzed, and subsequently, the tools were refined before the endline study commenced.

To ensure confidentiality, all participants were given a numerical code and at the start of data collection at each school, participants were informed of the purpose of the study and were requested to provide verbal consent. They were likely informed that they could withdraw from the study at any point.

Data Analysis

Following data collection, the research team entered all data into Excel spreadsheets and cleaned data for analysis. Classroom observation data and teacher self-assessment data were analyzed for frequencies in STATA version 13. Qualitative data were coded and analyzed for emerging themes; particularly surrounding the three selected National Teaching Standards of this study.

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Limitations

There were several limitations in this study, some of which are inherent to the methodologies, while others relate to the nature of this topic. First, for some data, the study relies on self-report measures. We aimed to overcome this limitation by incorporating a variety of data collection procedures in an effort to triangulate our findings. Another limitation is related to the sample size. This study is small in scope, as the QE4EC project was designed to be a pilot in 15 schools. Moreover, there is an uneven number of project and control schools. Thus, control school data should be intepretated carefully and not all comparisons can be made between project and control schools. Instead, this study emphasizes baseline-endline comparisons and growth, particularly for teachers in project schools.

FINDINGS AND DISCUSSION:

Table 3 below presents the background information on the sampled teachers. As illustrated, approximately three-fourths of sampled teachers have more than 15 years of teaching experience and have been teaching in the same school for the majority of their careers.

Table 3: Teacher Background Data (N=62)

	Number	Percentage (%)
Female	28	44.0
Male	34	55.0
Age		
20-24 years	1	1.6
25-29 years	5	8.1
30-34 years	8	12.9
35-39 years	10	16.1
40-44 years	7	12.9
45-49 years	17	29
50+ years	14	22.6
Married	57	92.0
Number of Children (average)	2	---
Teaching experience (years)	15+	72.0
Length at school (years)	15+	72.0

In terms of academic qualifications, the majority (94%) of teachers have at least a Higher Secondary Certificate (HSC), while 48.8% of teachers holds at least a graduate degree (see Figure 3). Thus, teachers in this sample have, on average, higher academic qualifications than the average for NNPS teachers in Bangladesh.

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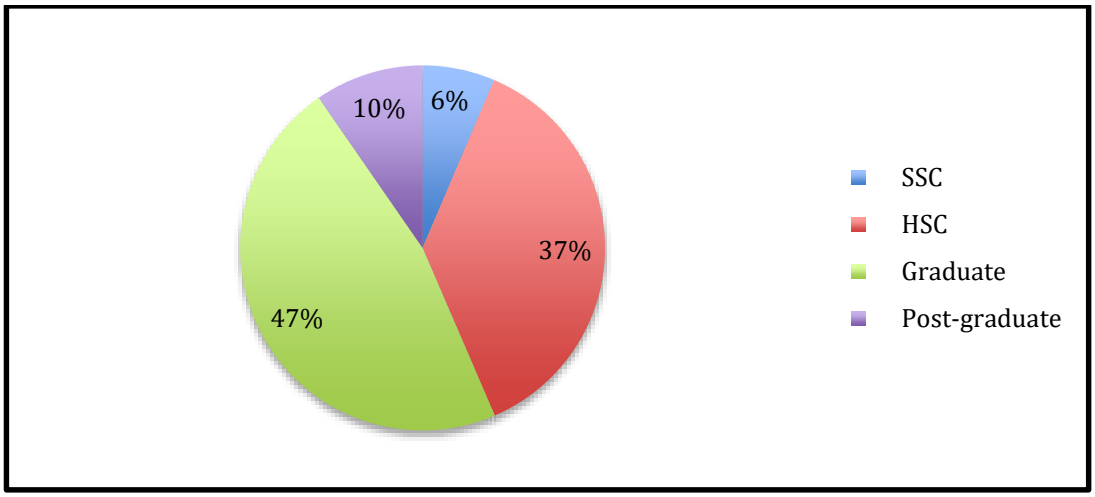

Figure 2: Teachers' Academic Qualification (N=62)

Pedagogical Knowledge

According to the Department of Primary Education, the standard for pedagogical knowledge states that teachers should be able to: demonstrate knowledge of a range of teaching strategies appropriate to curriculum competencies and learning outcomes. Such competencies include: lesson planning, using a variety of interactive strategies that involve all students, engaging students in learning, taking opportunities to develop learners' knowledge in one subject through activities in another subject, using teaching aids and differentiating lessons based on learners' needs.

Time on Task

Most primary school lessons should last around 45 minutes. During each classroom observation, research assistants recorded the time at which a teacher started a lesson, and the time at which the teacher ended the lesson.During the endline, teachers in project schools taught for an average of 41.8 minutes, while their peers in control schools taught for an average of 35.4 minutes. Compared to the baseline, teachers in project schools taught for approximately 12 minutes longer, while teachers in control schools taught for approximately 5 minutes longer.

Table 4: Average Time on Task (in minutes), by School Type

	Project (n=62)		**Control(n=28)**	
	Baseline	Endline	Baseline	Endline
Contact time in minutes (average)	33.9	41.8	30	35.4
Contact time in minutes (range)	14-65	21-78	17-55	19-53
Contact time (%)				
0-20 minutes	14.5	0.0	13.3	3.5
21-30 minutes	25.8	11.6	60.0	17.5
31-40 minutes	32.3	28.9	6.7	59.7
41-50 minutes	25.0	54.6	13.3	15.8
51+ minutes	2.4	5.0	0.8	3.5

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In project schools, twice as many teachers are teaching within the standard class time range of 41-50 minutes (55%), compared to baseline (25%). During interviews, several teachers commented that they are now more cognizant of time management, using the full lesson, compared to before. Head teachers mostly agreed that teachers are now maximizing their time in the classroom. Nevertheless, nearly all head teachers added that time on task and time management during lessons are two areas where teachers need to continue to improve.

Teaching Practices

Findings from classroom observations showed that teacher' pedagogical skills improved from baseline to endline. For example, during baseline findings from classroom observations showed that teacher' pedagogical skills were, on average, moderate, and in some cases weak in project schools. In the endline, however, nearly 85% of teachers' learner-centered strategies appeared "good" or "very good". Indeed, teachers utilized a variety of learning strategies and activities, such as peer and group work, mixed with independent work. Teachers are likewise doing a better job of incorporating age-appropriate techniques, cross-curricular teaching and allowing students to ask questions. In short, as illustrated in Table 5 below, far fewer project school teachers' pedagogical skills are considered "weak" and significantly more teachers' skills are considered "good" or very good".

Table 5: Teachers' Pedagogical Strategies, by School Type.

	Project (n=62)		**Control** (n=28)	
	Baseline	Endline	Baseline	Endline
Learning Strategies				
Weak	11.48	1.67	27	15.79
Moderate	54.1	14.17	60	35.09
Good	34.43	40	13	38.6
Very Good	0	44.17	0	10.53
Child-centered techniques				
Weak	36.07	1.65	73	19.3
Moderate	51.64	32.23	20	57.89
Good	12.3	37.19	7	19.3
Very Good	0	28.93	0	3.51
Cross-curricular teaching				
Weak	59.02	27.27	7	40.35
Moderate	25.41	25.62	27	35.09
Good	3.28	20.66	13	3.51
Very Good	0	14.05	53	8.77
Teacher-student interaction				
Weak	7.38	1.65	67	1.75
Moderate	49.18	13.22	13	35.09

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Good	41.80	56.20	7	40.35
Very Good	1.64	28.93	13	22.81
Questions and answers				
Weak	41.80	4.13	7	14.04
Moderate	54.92	22.31	47	50.68
Good	3.28	54.55	20	21.05
Very Good	0	19.01	0	14.04
Children actively engaged				
Weak	15.57	0	20	14.04
Moderate	58.2	30.58	13	29.82
Good	25.41	47.93	25	33.33
Very Good	0.82	21.49	0	22.81

Teachers have also improved in their ability to ensure that children are actively engaged during lessons. Over two thirds (69%) of project school teachers (and control school teachers) are now considered "good" or "very good" compared to only slightly over one-quarter of teachers at baseline. Teachers in control schools also appeared to have stronger pedagogical skills during endline, but to a lesser extent than their peers in project schools.

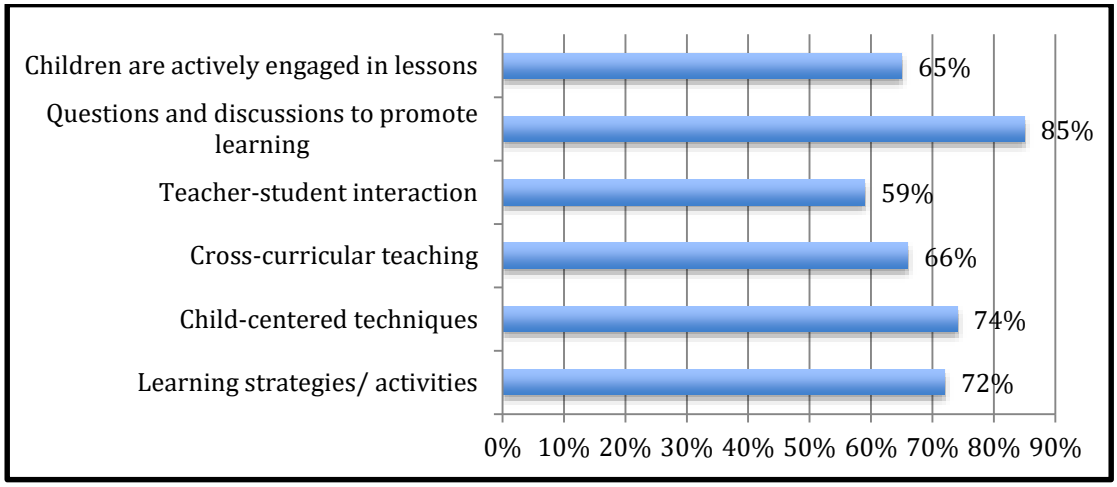

Figure 3: Summary of Proportion (%) of Teachers Improved in Pedagogical Skills

**Proportion includes teachers who were observed to made an "average", "above average" or "excellent" improvement*

During interviews, teachers also reflected on their increased use of strategies and activities during lessons. Not only are teachers using more aids and materials, but they are also creating more child-friendly activities than before. For instance, teachers are using age-appropriate techniques, such as incorporating real objects in the lessons, creating rhymes for other subjects, and group work.

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Student Engagement

Teachers' ability to engage all learners during lessons has also appeared to have improved significantly through the QE4EC project. For example, in project schools, teachers' communication skills, including their eye contact, voice and pronunciation, and ability to present clear instructions for activities, have all improved. More and more teachers are interacting with each and every student, providing individualized attention as needed. Moreover, teachers are moving around the classroom to ensure that all students are paying attention and participating actively. Figure 7 summarizes what students like most about their teachers.

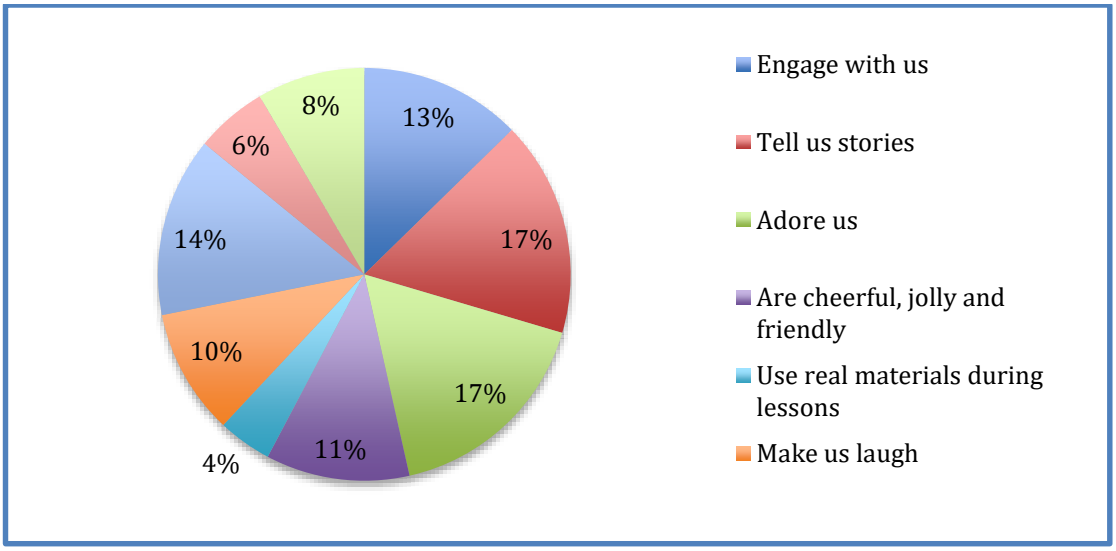

Figure 4: What Students Like MOST about Their Teachers (Project Schools)

Nevertheless, students have noticed that their teachers are improving and are working hard to make lessons more fun and engaging, by using various activities and techniques to ensure that students understand the material.

Professional Teaching Standard 2: Classroom Environment & Management

According to DPE, the standard for classroom management states that graduating teachers should be able to: establish a purposeful, positive, safe and inclusive physical and social learning environment for all, where students are able to participate fully. Competencies include: arranging furniture so that students are safe, comfortable and are able to learn, displaying learning resources and student work to encourage self-esteem, learning and creativity, using time efficiently so that students rae always engaged, developing a positive approach to student behavior, and establishing friendly, trustuing and professional relationships with students.

Classroom Environment

During the baseline, in over 98% of project school classrooms, children's work, writing, and drawings were not displayed in the classroom. During the endline, however, nearly 64% of

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classrooms now displayed children's work. Conversely, during the endline, we observed that only 7% of teachers in control schools display students' work in the classroom.

In addition, approximately 35% more teachers are displaying age-appropriate visual materials, compared to baseline observations. In control schools, only 22.3% of teachers display age-appropriate visual materials.

Finally, slightly more teachers are ensuring that their classrooms are clean, organized, and suitable for learning. During the endline, a similar proportion of control schools (78%) were observed to be clean and suitable for student learning. Overall, it appears the classroom environment has improved since baseline; teachers are creating a more engaging and suitable learning space for their students.

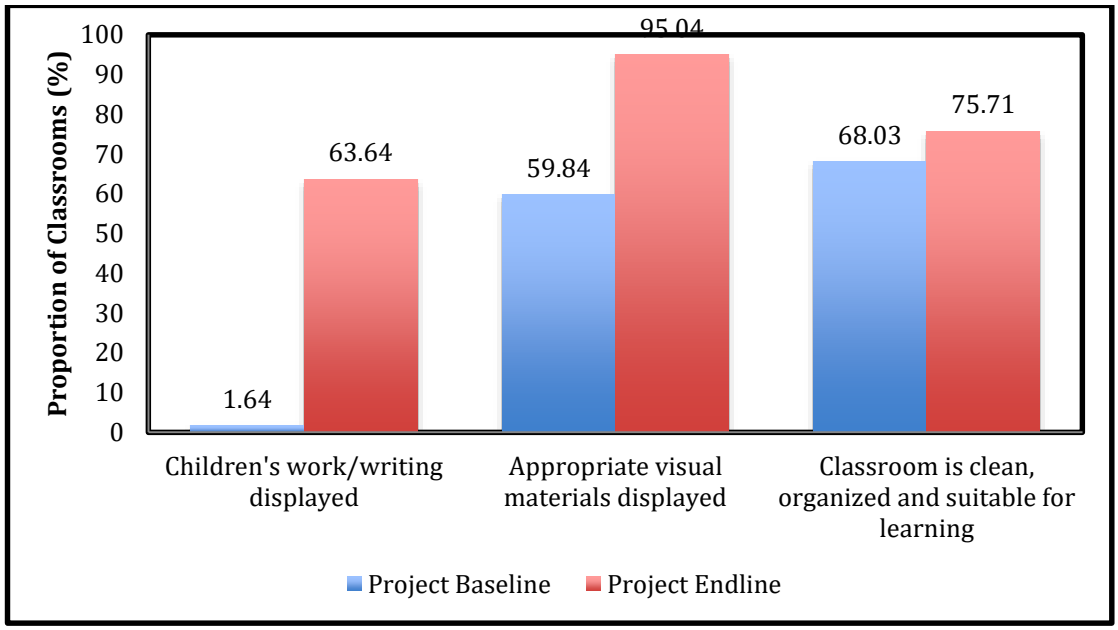

Figure 5: Quality of Classroom Environment in Project Schools (N=62)

Classroom Management

Findings from classroom observations showed that teachers' classroom management skills improved from baseline to endline. For example, during baseline findings from classroom observations showed that teachers' classroom management skills were, on average, moderate, and in some cases weak in project schools. In the endline, however, approximately 85% of teachers are considered "good" or "very good" at encouraging learners' confidence. Indeed, teachers demonstrated various strategies, such as providing students with positive feedback and encouraging them to think critically and creatively.

Teachers are likewise doing a better job of checking for student understanding. Teachers have also improved in their ability to ensure that children are actively engaged during lessons. Over two-thirds (69%) of project school teachers (and control schools) are now considered "good" or "very good", compared to only slightly one-quarter (26%) of teachers in the baseline. Teachers in control schools also appeared to have stronger classroom management skills during endline, but to a lesser extent than their peers in project schools.

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Table 6: Quality of Teachers' Classroom Management Skills, by School Type

	Project (n=62)		**Control** (n=28)	
	Baseline	Endline	Baseline	Endline
Encourages learners' confidence				
Weak	29.51	0.83	27	8.77
Moderate	49.18	14.05	47	28.07
Good	21.31	50.41	13	56.14
Very Good	0	34.71	13	7.02
Checks student understanding				
Weak	36.89	0.83	67	3.51
Moderate	55.74	21.49	20	54.39
Good	7.38	61.16	7	35.09
Very Good	0	16.53	7	7.02
Classroom management				
Weak	22.95	4.13	0	29.83
Moderate	58.20	25.62	47	31.58
Good	18.85	48.76	47	31.58
Very Good	0	21.49	6	7.02

Overall, teachers' classroom management skills improved, as summarized in Figure 10 below. However, teachers are continuing to use corporal punishment in the classroom, which goes against the National Education Policy. As such, teachers require more training on positive discipline strategies and alternatives to corporal punishment.

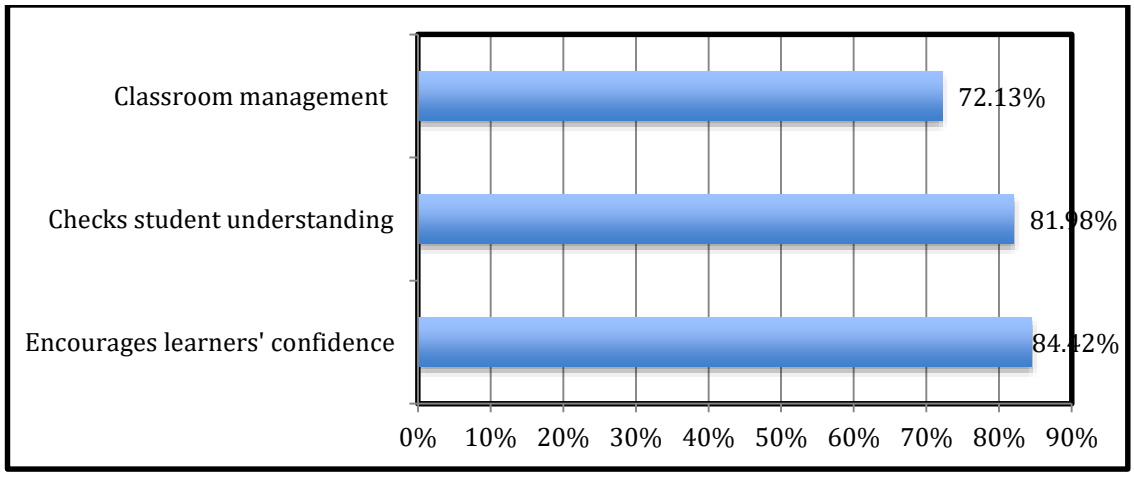

Figure 6: Summary of Proportion (%) of Teachers Improved in Classroom Management Skills.

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**Proportion includes teachers who were observed to made an "average", "above average" or "excellent" improvement*

Assessment

The final professional teaching standard addressed in the QE4EC model is student assessment. According to the Department of Primary Education, the standard for student assessment states that graduating teachers should be able to: plan and use a variety of appropriate assessment strategies and give timely oral and written feedback and feed-forward to students. Competencies include: using a variety of formative and summative assessment techniques, using information gained during a lesson to teach individual students according to their needs, attending to the learning of individual students and giving appropriate support.

Assessment

Findings from classroom observations showed that teacher' assessment skills improved from baseline to endline. For example, during baseline findings from classroom observations showed that teachers' assessment skills were, on average, moderate, and in some cases weak in project schools. In the endline, however, nearly 85% of teachers' assessment of student work appeared "good" or "very good". Indeed, teachers frequently utilized a variety of assessment methods throughout the lesson. Teachers are likewise doing a better job of providing both verbal and written feedback throughout their lessons.

Table 7: Quality of Teachers' Assessment Skills, by School Type.

	Project		**Control**	
	Baseline	Endline	Baseline	Endline
Assesses student' work in classroom				
Weak	16	0	0	12.25
Moderate	67	15.7	67	33.33
Good	17	60.33	27	40.35
Very Good	0	23.97	7	14.04
Provides verbal feedback				
Weak	21	1.65	33	5.26
Moderate	69	24.79	60	45.61
Good	6	34.71	7	8.77
Very Good	3	38.84	0	40.35
Provides written feedback				
Weak	9	4.96	0	19.29
Moderate	28	27.27	33	38.60
Good	51	41.32	60	21.05
Very Good	1	26.45	0	21.06

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Across the three areas of assessment, over 70% teachers in project schools improved to some extent. Findings showed that the majority of teachers with no observable change were considered at least "moderate", "good" or "very good" in the baseline. Thus, these teachers who did not change had less room for improvement, that is, they were already demonstrating moderate or better assessment skills.

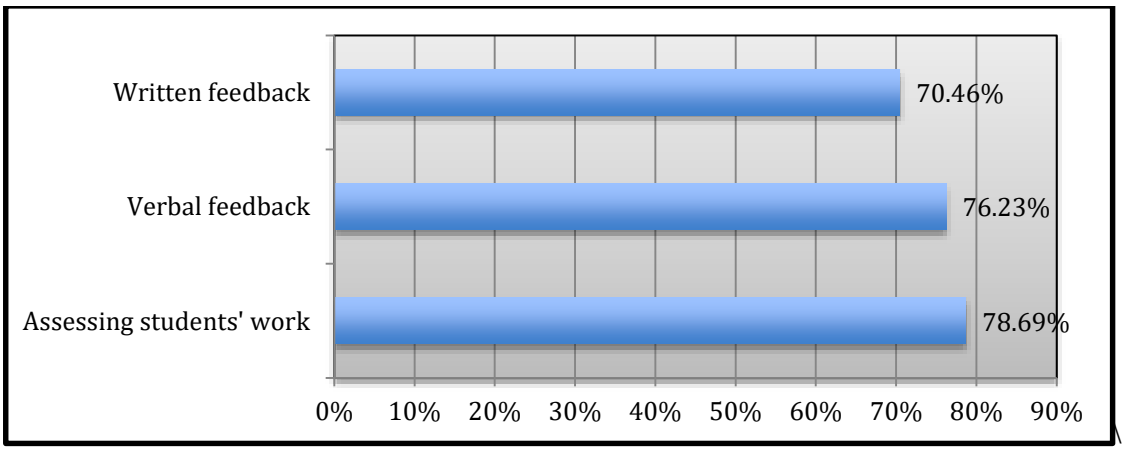

Figure 7: Summary of Proportion (%) of Teachers Improved in Assessment Skills (Project Schools)

Lessons Learned & Implications of the Study:

Several key findings emerged from this study, of which a few are highlighted below. For example,

1. Time on task and time management during lessons are two very important areas where teachers need to continue to improve.
2. Teachers require more training on positive discipline strategies and alternatives to corporal punishment.
3. Teachers require more capacity development in the use of continuous student assessments and in the analysis of this data to better inform their instruction.

These findings highlight implications for future teacher professional development initiatives. Specifically, the above lessons learned from the QE4EC pilot project point to the need for ongoing continuous professional development that continues to focus on aspects of these three National Teaching Standards.

All over the world, education systems are facing a big challenge to ensure the all children have access to quality educators. In the context of Rangpur district, Bangladesh, it is very inspiring and notable that teachers have improved significantly in their pedagogical knowledge, classroom management, and assessment skills, through their participation in the *Quality Educators for Every Child* project in Bangladesh. Nevertheless, findings indicate further areas for improvement to ensure quality educators not only for Bangladesh but also for similar regions of the world.

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RECOMMENDATIONS:

The study presents the following recommendations for continued interventions and teacher professional development initiatives around the country and in similar regions:

Assistant Teachers

1. Use positive discipline techniques. Corporal punishment is not permitted, nor is it the most effective way to managing student behavior. Rather, positive discipline techniques, such as advising students on how to improve, assigning them extra homework, or giving them extra responsibility in the class are techniques that have proven effective in other contexts.

2. Reach and teach struggling learners. Do not leave out those learners in the back of the classroom, learners with disabilities or learning difficulties. Rather, meet with these students, and possibly their parents, to create an appropriate plan to account for their specific learning needs, without embarrassing them during lessons or leaving them out altogether.

Head Teachers

1. Provide constructive and positive feedback to teachers. While teachers need honest and constructive feedback so that they can continue growing and improving, teachers also need positive feedback on what they are doing well.

2. Recognize and praise teachers for hard work and achievements. Strategies that is cost-effective and appropriate to reward teachers for improvement, at the school and/or community level. Recognition and praise are essential for teacher motivation and wellbeing.

Field Administrators

1. Visit schools regularly. Head teachers and teachers alike appreciate and value when you visit schools. As such, try your best to visit schools regularly to encourage teachers and follow up with and support head teachers.

2. Continue monthly cluster meetings. Teachers value regular opportunities to share their concerns, challenges, and ideas. Thus, continue frequent (monthly) cluster meetings and prioritize pedagogical discussions, sharing best practices, and developing strategies for positive discipline and classroom management.

National administrative authorities

1. Institutionalize peer observations, monthly cluster meetings, and coaching. Teachers and head teachers alike value opportunities for peer-to-peer collaboration and mentoring. Thus, build in collaboration and mentoring opportunities for teachers so that all teachers in Bangladesh can learn from and share their knowledge with their peers and leaders.

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2. Develop a teacher motivation and incentive mechanism to recognize teacher performance, improvement and progression. Teacher motivation is essential for teacher quality. Moreover, motivated and engaged teachers in turn motivate learners. As such, there is a need for a teacher motivation mechanism that recognizes teacher performance, progress, improvements, and growth.

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ABBREVIATIONS

AUEO	Assistant Upazila (Sub-district) Education Officer
CAMPE	Campaign for Popular Education
C-in-Ed	Certificate in Education
DPEd	Diploma in Primary Education
DPE	Directorate of Primary Education
GPS	Government Primary School
HSC	Higher Secondary Certificate
HT	Head Teacher
ICT	Information and communication technology
NCTB	National Curriculum & Textbook Board
NNPS	Newly Nationalized Primary School
NSA	National Student Assessment
PTI	Primary Teacher's Training Institute
RC	Results chain
RF	Results Framework
PREQUIP	Preparing for Education Quality Improvement

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RNGPS	Registered Nongovernment Primary School
SSC	Senior Secondary Certificate
TPD	Teacher Professional Development
UEO	Upazila (Sub-district) Education Officer
URC	Upazila (Sub-district) Resource Centre

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