

Abstract

Title of Dissertation: PRIMARY SCHOOL MANAGEMENT AND GENDER DEVELOPMENT IN BANGLADESH: LINKAGES BETWEEN INTERVENTION AND IMPACT

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This dissertation is an attempt to understand the impact of primary school management on learning outcomes of females in Bangladesh. A major research question that guided this study was: Why the children of government primary schools have lower levels of competency compared to children in BRAC schools? The impact of school management on learning outcomes of females is understood by focusing on six key variables: 1) Facilities, Resources and Services Available to Students; 2) Teacher Inputs; 3) Curriculum Design and Modes of Delivery of Lessons; 4) Parent and Community Involvement in School Activities; 5) School Monitoring and Evaluation; and 6) Students and Parents' Expectations. The empirical data, collected in 2004-2005 from six schools in Mymensingh District in Bangladesh. The sample consisted of two Government Primary Schools (GPS), two Registered Non Government Primary Schools (RNGPS), and two schools run by a local NGO, Bangladesh Rural Advancement Committee (BRAC).

A combination of qualitative and quantitative research techniques was used, including, interviews, survey questionnaires, focus group discussions, classroom observations, and reviews of documents and records.

The key findings of the study are:

Among the management variable factors, the availability of textbooks, toilet facilities, female teachers, contact and instructional time, parents and community involvement, instructional supervision, and expenses to be borne for education services - are the factors that significantly affected students' acquisition of knowledge, competencies and skills in the three types of schools.

Compared to RNGPS and BRAC schools, GPS schools had late supply of textbooks, fewer female teachers, inadequate toilet facilities, lower contact and instructional time, less involvement of parents and community in school activities and less instructional supervision. Although education in GPS and BRAC schools was free, students in GPS schools were charged unofficial fees for education services. These factors contributed to the lowest learning outcomes of females of GPS schools among the three types of schools.

PRIMARY SCHOOL MANAGEMENT AND GENDER DEVELOPMENT IN
BANGLADESH: LINKAGES BETWEEN INTERVENTION AND IMPACT

by

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Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2006

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Dedicated to my parents

for their love, care, and support

Acknowledgements

I would like to express my sincere gratitude and appreciation to the many people whose support made this study possible. I would like to thank Professor Marcus Franda, my advisor and Doctoral Committee Chairman, for his guidance, timely advice, and constant encouragement. He has been an excellent advisor from whom I have learned a great deal. I am deeply indebted to him for all his support during the many years I have known him.

I would also like to acknowledge the commitment and expertise of my committee members Dr. Charles Fred Alford, Dr. Warren Phillips, Dr. Deborah Rosenfelt, and Dr. Robyn Muncy. My gratitude goes to Professor Warren Phillips whose support and encouragement contributed to the accomplishment of this goal.

I appreciate immensely the support of Ms. Ann Marie Clark through the doctoral program. I express my thanks to Ms. Valerie Woolston and Ms. Vonetta Franda.

My heartfelt thanks to my family for being my source of inspiration and strength.

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List of Abbreviations

GPS	Government Primary School
PPS	Private Primary School
BRAC	Bangladesh Rural Advancement Committee
C-in-ED	Certificate-in-Education
SMC	School Management Committee
PTA	Parent Teacher Association
BANBEIS	Bangladesh Bureau of Education Information and Statistics
EMIS	Education Management Information System
MIS	Management Information System
M&E	Monitoring and Evaluation
DPE	Directorate of Primary Education
DD	Deputy Director
DPEO	District Primary Education Officer
UEO	Upazila (Sub-District) Education Office
UPEO	Upazila (Sub-District) Primary Education Officer
AUEO	Assistant Upazila (Sub-District) Education Officer
MPME	Ministry of Primary and Mass Education
NCTB	National Curriculum Text Book Board
NFE	Non Formal Education
PTI	Primary Teacher Training Institute
BPTA	Bangladesh Primary Teachers' Association
LGED	Local Government Engineering Department
SSC	Secondary School Certificate
HSC	Higher Secondary School Certificate

Chapter I Thesis Statement and Methodology

Statement of Purpose

This dissertation is an attempt to understand the impact of primary school management on learning outcomes of females in Bangladesh.

School management is defined as educational institutional inputs and process management. Inputs are the resources used in the production of the education experience, such as, physical facilities, learning materials, financial resources, and teachers. Process refers to the means by which education inputs are transformed into outputs, including modes of delivery of lessons (instructional methods, use of class time, student assessment), teacher and student attendance, contact hours, parent and community involvement in school affairs, and classroom and school monitoring and supervision. Learning outcomes are the direct and immediate effects of school management such as, students' acquisition of knowledge, competencies, and skills.

The impact of school management on learning outcomes of females is understood by focusing on six key variables. The empirical data, collected in 2004 from six schools in Mymensingh District in Bangladesh, focused on these six variables, identified from previous studies in other settings, each of which was approached through the asking of specific questions as follows:

1. Facilities, Resources and Services Available to Students;

Do physical facilities and learning resources in Bangladesh schools meet student requirements?

2. Curriculum Design and Modes of Delivery of Lessons;

Do school textbooks reflect gender needs and perspectives? How well are relevant practical skills covered? To what extent is the mode of delivery of lessons student centered? How students' progress in learning is assessed?

3. Teacher Inputs;

Do teachers fulfill their responsibilities and duties? Do they attend schools regularly? What educational qualification and training do teachers have? What professional career support is available to female teachers?

4. Parent and Community Involvement in School Activities and Decision-Making;

What are the areas where parents and communities intervene?

5. School Monitoring and Evaluation Capabilities;

How performances of schools are assessed? Do classroom and school monitoring and supervision take place? What support to schools, teachers and head teachers does the external management and administrative structure (central, regional and local) provide to help in-school management? To what extent schools are accountable to parents and society at large?

6. Student and Parents' Expectations;

Are education programs in schools consistent with the needs, interests and capacities of students? In what ways does school learning meet or fail to meet the expectations of students and guardians?

For this dissertation, six schools of Mymensingh district under the Dhaka division of Bangladesh, were studied. The sample consisted of two Government Primary Schools (GPS), two Registered Non Government Primary Schools (RNGPS), and two BRAC schools. The schools were located in rural and urban areas of Bhaluka sub-district in Mymensingh. A combination of qualitative and quantitative research techniques was used. The research techniques included interviews, focus group discussions, survey questionnaires, observations, and reviews of documents and records. In total, 24 teachers including, 3 trainees(11 females and 13 males), 4 head teachers (all males), 14 government and BRAC education officials, 21 SMC members, 20 parents, and 54 students participated in the data collection process. In addition, 16 classrooms were observed in the three types of schools.

The Fieldwork was conducted from October 2004 to April 2005.

The research goals were twofold:

To extract features from the data which distinguish schools.

To investigate whether those features affects school performances.

Background of the Study

For many years Bangladesh has been striving to achieve the goal of universal primary education. In recent years, Bangladesh has made significant progress both in increasing enrolment of children, particularly females. The Bangladesh primary education system, however, is plagued with a serious problem – an exceptionally low level of learning achievements among primary school completers. A nationwide sample survey of primary school students completing class five, conducted in 2002, showed that only 1.6 percent of the children acquired all of 27 competencies tested in the survey. Half of the children failed to achieve 60 percent or more of the basic competencies (Education Watch 2002). This finding is consistent with earlier results (Ahmed 1996, World Bank 1999, Nath and Chowdhury 2001). One finding showed that those who completed Grade 5 achieved only Grade 2 competence level. Low competence levels are most evident in government run schools, which account for 40 percent of the total number of primary schools in the country. Studies have also found that graduates of non formal schools have a higher level of basic competency compared to other types of schools (Nath and Chowdhury 2001, Education Watch 2002). Education Watch studies (2001, 2002) showed that students of non formal schools run by the Bangladesh Rural Advancement Committee (BRAC), a local Non Government Organization (NGO), acquired more competencies than those of other schools although BRAC students typically come from poorer families.

Therefore, a major research question to be asked is: Why the children of government primary schools have lower levels of competency compared to children in BRAC schools?

Most studies suggest poverty to be the main reason for low educational attainment of children in Bangladesh. Education Watch studies (2001, 2002) however, have clearly demonstrated that students of BRAC schools acquired more competencies than those of other schools even though BRAC students come from poorer families. What, then, are some of the other factors that might contribute to or detract from students' acquisition of knowledge, competencies, and skills?

Several studies have shown that the returns on investments in women's education, particularly at the primary level, are significantly greater than for similar investments in men. This is because of the strong interaction of women's education, health, nutritional status, and fertility levels and their effects on the education, health, and productivity of future generations (King and Hill 1993; Colclough and Lewin 1993; Summers 1994; Psacharopolous 1994; Glewwe 1997; Smith and Haddad 1999; Todaro 2000). In the rural areas of Bangladesh where 80 percent of the total population and 90 percent of the poor live, most female children do not have the opportunity to go beyond Grade 5. Targeting this segment of the poor rural population might be a way of getting at the dilemma encountered thus far when trying to improve competencies.

Significance

1. This work has relied on previous school effectiveness research for identification of the variables related to student achievements. The primary concern of this study however, is investigating how the six variables are linked to one another to produce outcomes. The

research previously conducted, has provided very little detail in terms of the relationships among the factors of school effectiveness.

2. Much of the research done over the past decades on school effectiveness has focused on supply side factors. This study attempts to understand both supply factors (facilities and learning resources, teacher quality, modes of delivery of lessons, school evaluation, and parents/community participation) and demand factors (students/parents' expectations, gender needs and interests). The methodology for this study was chosen specifically to garner critical information on the efforts of schools in promoting student achievement, with particular emphasis on professional and organizational efficacy, as well as effective instructional strategies and programs that have been utilized.

3. A comprehensive approach (including demand and supply factors) in the determination of educational outcomes might shed some light into issues on which further research is needed.

4. Over the years researchers of developed and developing countries have identified a number of determinants of school effectiveness. Despite this wealth of information, no attempt has been made to analyze how school related factors affect student learning achievements in the context of Bangladesh. We do not know, for example, the differential effects of various inputs, including teacher input, on the academic achievement of Bangladeshi students. Comparison among the three types of schools selected for study in this dissertation has made it possible for an outside observer to gain at least a minimal

understanding of the multi-dimensional complexity of problems associated with low learning achievements plaguing the Bangladesh primary education system.

5. Empirical evidence about the factors that contribute to or detract from students' acquisition of knowledge, competencies, and skills is important to design improved education planning and programs. This dissertation aims to contribute toward that end.

Basic Information About the Three Types of Schools

A) Government Primary School (GPS): This is the dominant category of elementary schools in Bangladesh. These are entirely run by the government. The government appoints and pays salaries of teachers. It also pays for school buildings, textbooks and teaching materials for these schools. In 2002, there were an estimated 37,700 GPS schools in the country, with 157,000 teachers and 10.7 million children enrolled (PMED 2003). Public education is free in the country

B) In addition to the GPS schools, there were an estimated 19,000 Registered Non-Government Primary Schools (RNGPSs) in Bangladesh in 2002 with 4 million children enrolled (PMED 2003). These are schools that have been established privately under community auspices. On being registered by the government after some minimum years of wait and fulfillment of criteria, the teachers of RNGPS schools become eligible for 90 percent salary subvention from the government and allocations for buildings and other facilities.

C) The BRAC schools are run by the Bangladesh Rural Advancement Committee (BRAC), the largest NGO working in the field of education in the country. In 1985 BRAC initiated a Non-Formal Primary Education (NFPE) program to provide basic education to the poorest rural children. The BRAC Education Program has grown to encompass well over 34,000 one-room schools that provide education to 1.3 million children (BRAC 2004). Each school is shut down once a group of 30-33 students completes the five year primary cycle unless there are at least 30 more eligible children in the community to newly enroll. These schools receive no assistance from the government. BRAC education is free. Books and stationeries are provided free to students. Parents, however, need to replace slate boards and mats in case of needs.

School Selection Criteria

The schools in this study were selected on the basis of the following criteria:

- students' graduation rates;
- schools where girls were enrolled i.e. co-education institutions;
- schools that had and not had Grade V national scholarship-winning students during the five years (1999- 2003);

Schools profiled represent high and low performing schools (based on graduation rates, and the number of Grade V national scholarship-winning students in schools during the five years).

Preliminary information about the distribution of schools and student enrolments by type of schools in sub-districts of Mymensingh was collected from the Ministry of Primary

and Mass Education Division, Dhaka, Bangladesh. Information on national scholarship examination results, student graduation rates, names and locations of formal schools under Bhaluka Sub-district were obtained by scanning documents at the Bhaluka Sub-district education office, with clarification provided by the Sub-district (Upazila) Education Officer (UEO) and Assistant Sub-district (Upazila) Education Officers (AUEOs). While information about the distribution and location of BRAC schools in villages of Mymensingh were mainly obtained from the BRAC main office in Dhaka; local people also provided valuable information about schools and their locations.

A formal application requesting permission to conduct research in the school division accompanied by appropriate documentation was submitted to obtain written approval from school division officials.

Site and Sample

The schools selected for the study are located in Bhaluka sub-district of Mymensingh. Bhaluka sub-district covers an area of 444.05 sq km and has a population of 264,991, of which 51.8 percent is male and 48.20 percent is female. There are 102 villages in Bhaluka sub-district. The main occupations of the population are as follows: agriculture 63.9 percent, fishing 1.0 percent, agricultural labor 16.19 percent, wage labor 2.63 percent, commerce 5.85 percent, service 2.74 percent, others 7.63 percent. A textile mill, a few ceramic industries, a spinning mill, and a few cottage industries are located here. The literacy rate of the population is as follows: male 29.4 percent and female 18.5 percent. According to the sub-district education office, 75.3 percent of the children in the

eligible age group were enrolled in primary schools in 2004. UEOs data showed that 57 percent of students were enrolled in GPS, 24 percent in RNGPS, and 1.1 percent in Non Formal Education Programs (NFEPs). The NFEPs are conducted by different Non Government Organizations (NGOs).

Among the six schools selected for the study, four are located in the rural areas and two in the urban area. Three schools (1 GPS, 1 RNGPS and 1 BRAC) are in a village called Kathali; two schools (1 GPS and 1 RNGPS) are in Bhaluka town; and the other BRAC School is located in a village called Bashil.

The majority of residents in the two villages where four of the six schools are located are poor with a livelihood based in agriculture, although a few rich people also live there.

The communication facilities in these villages mainly consist of mud roads and waterways with rickshaws, cycles, and boats as the main means of transportation. The Bhaluka town has an area of 27.19 sq km with a population 12269, of which males account for 52.56 percent and females 47.44 percent. The literacy rate among the town people is 32.7 percent. The communication system is much better in Bhaluka town compared to villages. The roads are suitable for wheeled traffic. Buses, cars, and rickshaws are available in the town but rarely in the villages.

Of the six schools, three (the urban RNGPS and 2 BRAC schools) are single-shift schools, and the remaining three (2 GPS and 1 rural RNGPS) are double-shift schools. The schools operate six days a week, Saturday to Thursday. The official times of

operation of single shift schools are as follows: 9.30 am – 1:15 P.M. covers Grades I and II and 9:30 A.M. - 4:15 pm covers Grades III, IV, and V. The official time of operation of double shift schools are as follows: Grades 1-2 (9:30-12:15 P.M.) and Grades 3-5 (12:00 noon - 4:15 PM).

The urban RNGPS school is located closest to the sub-district education office, while the rural GPS school is located furthest from this office. The RNGPS schools were established under community initiative. The community donated lands for the establishment of these schools. The rural RNGPS has a pond in the school compound. The urban GPS school was also established by the local community but was nationalized in 1973. All four head-teachers of formal schools are males while the Program Organizers (POs) of both BRAC schools are females. Only 9 out of 33 teachers in the three types of schools are females. All but four SMC members are females. School Profiles are presented in Table 1.

Table 1 School Profile

School Type and Location	Year Established	No. of Students	Girls Student percent	Total No of Teachers * β (No of Female Teacher)	Other Staff ζ^*	Average Teacher Student Ratio	Shift	Grade V Grad-uation Rates (%)	Total No. of National Scholarship Winning Students	Distance From Sub-District Education Office
Urban * α (U)										
Rural										

	(R)									(1999-2003) δ^*	
1	School # 1 U GPS	1967	332	41	9 (2 F)	2	1:47	Double	75	6	2
2	School # 2 U RNGPS	1963	310	44	10 (3 F)	2	1:44.2	Single	82	11	0.5
3	School # 3 R GPS	1982	241	32	5 (0 F) ϵ^*	0	1:40.1	Double	60	0	5
4	School # 4 R RNGPS	1976	150	40	7 (2 F)	1	1:30	Double	76	3	3.5
5	School # 5 R BRAC	1979	32	80	1 (F)	0	1:32	Single	89		5
6	School # #6 R BRAC	1984	30	82	1 (F)	0	1:30	Single	90		4
	2 U 4 R Total Schools 6		Total No. of Students 1055		Total No of Teachers 33 (9 F) γ^*						

Note: School names are omitted to honor the commitment of anonymity made during field research.

α^* Schools located in Bhaluka town are considered urban schools.

β^* The total number of teachers includes head teachers (GPS and RNGPS schools have head-teachers).

γ^* The average number of female teachers in GPS, RNGPS, and BRAC schools were 1, 2.5, and 1 respectively.

δ^* Only students of formal schools can appear in Grade V national scholarship examinations.

ϵ^* One of the five teachers in rural GPS school was on deputation.

ζ^* Other staff: The urban GPS and RNGPS schools have bearers cum cleaners and assistants assigned to head teachers. The rural RNGPS school has a bearer cum cleaner. The BRAC schools are one room schools with no staff but the class teachers.

The number of sections and learners (by grade) in GPS and RNGPS Schools in 2004 is shown in Table 2.

Table 2: Number of Sections and Learners by Grade in the Three Types of Schools, 2004

Urban GPS School		Urban RNGPS School		Rural GPS School		Rural RNGPS School	
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#1		# 2		# 3		# 4	
Grade	No. of Learners	Grade	No. of Learners	Grade	No. of Learners	Grade	No. of Learners
No. of Sections	(Sections) A B	No. of Sections	(Sections) A B	No. of Sections	(Sections) A B	No. of Sections	
I 2	50 45	I 2	39 40	I 2	45 48	I 1	40
II 2	44 40	II 2	35 38	II 1	66	II 1	36
III 1	70	III 1	61	III 1	40	III 1	31
IV 1	46	IV 1	55	IV 1	24	IV 1	23
V 1	38	V 1	42	V 1	18	V 1	20

BRAC School # 5		BRAC School #6	
Grade	No of Learners	Grade	No. of Learners
I	32	I	30
II	30	II	29
III	27	III	24
IV	21	IV	20
V	19	V	18

Table 3: Graduation Rates of Students in Six Schools (2003)

GPS School #1 Urban	RNGPS School #2 Urban	GPS School # 3 Rural	RNGPS School # 4 Rural	BRAC School (#5) Rural	BRAC School (#6) Rural
72	81	59.3	63.4	85	88

Methodology

A combination of both qualitative and quantitative techniques was used in this research.

The techniques included interviews, focus group discussions, survey questionnaires, classroom observations, and review of documents and records.

A) Interviews were conducted with:

- Head-teachers
- Teachers
- Students
- Sub-District Primary Education Officers
- Assistant Sub-District Primary Education Officers
- BRAC Education Officers
- Teachers' Union President
- School Management Committee (SMC) Members
- Parents and Local Community

B) Instruments used in the study comprised:

- Teacher questionnaires
- Student questionnaires
- Head-teacher questionnaires (for school data)
- Head-teacher interview guides
- Teacher Focus Group interview guides
- Parent Focus Group interview guides
- SMC Member Interview guides
- Classroom Observation Checklist

Data Collection

Following school selection and upon arrival at formal schools, usually during official school hours, I introduced myself to the head-teacher and presented the letter I received from the District Commissioner with the permission to collect information relevant for my research. The head teachers usually introduced me to other staffs. The schedule for interviews with teachers and head teachers was arranged between classes, mostly during lunch break. In the case of BRAC schools, the Program Organizers introduced me to the class teachers.

Interviews

Interviews with the head teachers of GPS and RNGPS schools and with the program organizers of BRAC schools were conducted to get information about their activities and problems they faced in running the schools. Views of teachers and students about schools

and teaching learning culture were ascertained through conducting interviews and survey questionnaires. Participants in surveys recorded their responses on forms provided. While older students were able to respond quickly and with apparent accuracy to the questionnaire, it was necessary to spend more time working with younger students. Parents as well as SMC members were also consulted on the issues of quality education, schools' roles and responsibilities and their duties regarding school affairs. The reasons of dropping out as well as non-enrolment and the circumstances causing these were captured through focus group discussions with the children and their parents. Often, if the respondents permitted, a tape recorder was used in addition to the notebook entries. The tape-recorded materials were transcribed soon after the events. In addition, informal conversations with individual teachers, parents, and students enriched understanding of the factors affecting student learning.

Each interview was started by describing the general aim of this study i.e. to learn about the factors that affect student learning outcomes. The interview format was prepared suggesting participants that they should be as specific as they could. Special efforts were also made to encourage respondents to substantiate statements with examples; rather than, for example making a general statement regarding the head teacher's behavior without relating a specific incident. In order to help those who found it harder to describe incidents, generic prompts were often used to ensure better understanding. For example, when a teacher of the urban RNGPS school simply stated that the head teacher motivates teachers, the respondent was asked what the head teacher did specifically. It was learnt that in one case that he would just observe lessons, as if he were another student. He

came to the class and sat at the side. He observed the way teachers taught the lessons and how the students reacted. He did not interfere at all. The teacher went on with the lesson as if he was not there. Some generic probes used to ensure the interviewee understood the essence of the incident: What happened next? Why did it happen? How did it happen? What were the consequences - immediate and longer term? When necessary interviews were followed up with further questions by visiting schools and talking to respondents to complete the information.

Efforts were made not to make the mistake of interviewing only those people who were easy to contact and not to be solely reliant on the most articulate or intellectually responsive respondents. Attempt was made to gain the views of a representative cross section of stakeholders in the interests of the validity of research work. Head-teacher and teacher time use and attendance can be a particularly sensitive subject, as most schools, head-teachers and teachers do not comply fully with government rules and regulations. However, the degree of frankness was surprisingly high. Even the few head-teachers or teachers who attempted to conceal the extent of their irregular attendance were exposed by parents, community members, and students.

The focus group discussions in urban schools were orderly compared to those in rural schools, with the groups isolated in separate rooms, unattended by on-lookers or possible "contaminants". The situation at the rural schools was much more fluid and chaotic due to the lack of facilities at the schools, no extra classrooms available for privacy or to isolate groups. Often, the focus group discussions were conducted on the ground in the

schoolyard and included parents, SMC members, local people, and un-enrolled children. Ultimately, the wide range of participants and their interactions served to enrich understanding of the school and its context.

Observations

Visits to schools and classrooms were designed to identify and observe differences and similarities in the day to day operation of the three types of schools. Two types of "structured" in-school observations and instruments (annexed to the study) were developed. The first (School Observation) tracked on a half-hourly basis what was occurring overall at the school (i.e. school time use) by following teacher's movements and activities (such as when they arrived/left; when they were in class, in a meeting, at an assembly). This was conducted somewhat covertly without the knowledge of teachers. The data was used to verify what (I) the head-teacher reported (in an interview) was the daily routine of the school, and (II) the teacher responses about time use in the structured survey questionnaire. Details related to observations at the research site were also recorded, including availability and maintenance of physical facilities, availability of instructional aids and student services.

The second (classroom observation) format was developed to collect data on classroom learning or modes of delivery of lessons. Information was collected following a non-participant classroom observation strategy by using a checklist regarding different aspects of classroom teaching-learning activities. The information was analyzed with an eight point analytical framework that included content and pedagogical knowledge of the

teacher, teachers' preparation, lesson presentation, use of teaching aids, classroom management, slow learners' management, homework management, assessment and feedback, and co-curricular activities. A major advantage of observation (over focus groups, or structured survey questionnaires) is that it allows for the identification of actual behaviors. As the behaviors were taking place in a group setting as in a classroom it was comparatively easy to collect data. Teacher and student behavior was recorded on a simple form that noted the time and activity of the teacher, in addition to what students were doing (to determine whether they were responding to teacher activities/instructions). Since recording each student's response was not feasible, what most of the students were doing with some notes on other student activities was recorded. For classroom observations, which lessons were the subjects of the day were verified with the teachers and students before the beginning of each class. Teachers were reassured of anonymity and that there was no performance evaluation purpose to the observations. While collecting data, I was aware that the presence of an outside observer might influence the teacher's behavior and likely cause him or her to alter the daily schedule of activities, particularly if he or she feels that there is a "right" way to behave. Distortions are likely to occur in the behaviors of both teachers and students, for example, more time than normal may be spent on lesson plan preparation by teachers or students may become disciplined. To reduce distortions in teachers/students' behavior in class, long hours were spent in schools interacting with teachers/students so they become habituated to my presence. The relatively constrained mobility of the students and teachers during school hours and the group setting of classrooms made observation of numerous subjects possible, thus addressing issues of representativeness and sample size.

Review of Textbooks, Documents and Records

Textbooks were reviewed to have an understanding of whether those reflect gender perspectives and interests. Attendance registers were examined to ascertain attendance rates of student and teacher in schools, and also attendance rates of members at School Management Committee (SMC) meetings and Parents teachers meetings. Students result sheets were examined to have an understanding of students' academic performance.

Secondary data were collected from the following: Bangladesh Bureau of Educational Information and Statistics (BANBEIS), Bangladesh Bureau of Statistics (BBS), National Development Plan documents, Reports of the Directorate of Primary Education (DPE), and newspapers.

Knowledge Test

Learning achievements of students of Class V in the three types of schools were assessed through knowledge test on four areas: 1) Bengali reading and writing skills, 2) English reading and writing skills, 3) Numeracy skills, and 4) Social Science life skills/knowledge.

Table 4 includes Methods Matrix.

Table 4 Methods Matrix

Tools/Methods	School 1	School 2	School 3	School 4	School 5	School 6	Total
Teacher Questionnaires	7	8	2	5	1	1	24

Student Questionnaires	9	9	9	9	9	9		54
Head Teacher Interviews & Questionnaires	1	1	1	1				4
Student Head Counts	√	√	√	√	√	√		
Classroom Observations	√	√	√	√	√	√		16
BRAC Education Officer Interviews					√	√		
SMC Chair/Member Interviews	√	√	√	√	√	√		
Teacher FGD	√	√		√				
Parent Interviews	√	√	√	√	√	√		
Interview with Teachers' Union President							√	
UEO/AUEO Interviews							√	

Data Analysis

The aim of analyzing the data collected in the field is to address the research question: Why the children of government primary schools have lower levels of competency compared to children in BRAC schools?

Data were collected in six major areas under a broad analytical framework. Additional factors of importance that surfaced during the gathering of the data identified as having an influence on student achievement were also documented. Although time and resource constraints did not permit to conduct more classroom observations and interviews with teachers, parents, students, data from survey questionnaires however, provided a robust number of responses (24 teachers and 54 students) as a basis for initial analysis. Survey responses were scanned and subsequently results were tabulated by machine, thus eliminating researcher error in charting responses. During the first phase of the study, the survey responses were collected, examined, and compared. After examination of survey and interview responses, a second phase of data collection, FGDs in selected schools were conducted to gather additional data. For validity purpose, crosschecking of information and triangulation was done. During the synthesis and analysis phase, the themes and categories that emerged from the responses of the interviewees were regularly reviewed. The lack of variation in the information (except between urban and rural areas on some respects) teachers provided in survey questionnaires about their daily schedules and routine, and the reasons for absenteeism and tardiness demonstrates that certain patterns of and reasons for behavior predominate.

The minutes that the teacher dedicated to particular functions/activities were tabulated using a classification system adapted from Education Watch. The teacher functions were divided into two main groups: Instruction and Non-Instruction. “Instructional” activities included teaching activities such as lecturing, employing teaching aids, using the chalkboard, individual student instruction, supervision of student group work (recitation and dictation) and other tasks designed to impart the lesson to students. These were further classified into “proactive situations” in which the teacher dominates the learning environment in a one-way teacher-to-student flow of information or direction, and into “interactive situations” in which the teacher facilitates the environment so that students are actively engaged in learning - asking and responding to questions, discussion, demonstration or group-work (recitation and singing). “Non-Instructional” activities included counteractive situations in which students either do not receive any information from the teacher or the instructional process is disrupted. These situations were classified into “class administration” (e.g. roll call, teacher doing paperwork), “discipline” (e.g. scolding students and calling the class to order), “idle” time (e.g. teacher doing nothing or relaxing while still present in the classroom), and “absent” time (teacher absent from the classroom).

Because the activity of each student can not reasonably be accounted for, student activities in response to the teacher were simply tabulated into two categories: the majority (judgment call by the observer) of students regarding the teacher’s directions and the majority of students disregarding the teacher’s directions.

Limitations of the Study

Some of the major limitations of the study are as follows:

1. The sample size was kept small to allow for a deeper understanding of the issues affecting school performances and learning outcomes. Therefore, its representativeness may not extend to all schools, or even all government primary schools in Bangladesh. Using a large number of schools from all across Bangladesh as samples and more numerous classroom observations would have been more appropriate to an investigation of the entire education system, but this was not possible with limited resources when confronted with the complex processes going on inside schools and classrooms. Therefore, the findings of this study can only be taken as indicative of school conditions affecting student learning.
2. The major statistical trends of this study (on student attendance for example) have not contravened the findings of previous studies with larger and wider sample sizes, but the small size of the samples in this study cannot be relied on as an indicator for all government primary schools.
3. The student samples in this study are probably biased towards those students who are comparatively regular in their attendance because the students interviewed were selected from among those students present at schools on the days of visits. The chronically absent students are likely to be under-represented as the chance of them being at schools is less than those who attend regularly. Therefore, the data presented on students is

probably a better reflection of the fairly regular students than of the students who are habitually absent.

Organization of the Study

Chapter I presents the thesis statement and methodology. This chapter includes purpose of study, research questions, significance, the samples, data collection processes and analysis, and limitations of the study.

Chapter II reviews the relevant literature.

Chapter III includes research findings on the six key variables. It also extracts features from the data that distinguish schools and interprets the reasons for the effectiveness of those features.

Chapter IV recapitulates the findings of the study. It also includes suggestions and recommendations for future study.

The appendices include the instruments used in this study for data collection: teacher survey questionnaires, student survey questionnaires, head-teacher questionnaires (for school data), head-teacher interview guides, teachers focus interview guides, parent focus group interview guides, SMC member interview guides, class room observation checklist, classroom observation form.

CHAPTER II LITERATURE REVIEW: What Do We Know About The Determinants of Academic Achievements?

This Chapter begins with a review of studies on female education conducted in Bangladesh. Then it focuses on the research on school effectiveness that has evolved over the past decades in developed and developing countries.

Research in Bangladesh

Many studies indicate poverty to be the main reason for the persistence of gender gap in education in Bangladesh (Ahmed 1978, Khatun 1979, Quasem 1983, Quadir and Kundu 1985, Ahmed 1988, Khan 1992, Ahmed and Hasan 1984, Hossain et al 2001). It has been suggested that families find both direct and opportunity costs of girls' schooling difficult to bear. The direct costs of education including tuition and other fees, costs of transportation and stationeries may exceed a poor family's total monthly income. Where resources are scarce, poor parents prioritize educating their sons over their daughters because boys have better employment prospects in the future. Where extended families are the norm, boys are perceived as providers of financial support to aging parents. The opportunity costs of girls' education are also significantly higher as girls' labor is often central to agricultural production and household chores. The higher opportunity costs of labor to poor families mean that even if the first few years of education are free, they are not without cost to the family. Data from a sample survey in Bangladesh has shown that female education varies positively with their family's income and landholdings (Ahmed and Hasan 1984). It has also been suggested that from parents' point of view, education

for daughters may seem less attractive than for sons. This is because, a girl's education brings fewer economic benefits if she marries early and stops working or if she ceases after marriage to have any economic obligations toward her parents (Hossain et al 2001).

Tradition and culture have been found by some as the main reasons of female educational backwardness in Bangladesh. Apart from poverty, existing cultural norms and practices discourage parents from sending their daughters to schooling (Papanek 1985; Quasem 1993). It is not only economic poverty, but also what may be called a "cultural poverty" that hinders community involvement and parental interest in promoting girls' education (Khatun 1979). The low relevance of education in society has been seen as an obstacle to educational achievement. Rural families prefer to see their daughters learn those skills such as, written communication skills which would increase the possibility of getting married into an economically and socially powerful family (Quasem 1983). One study has reported that middle class families view education as a favorable factor in increasing possibilities of good marriage for their daughters, since education helps girls manage households more efficiently (Ahmed et al. 1978).

A highly positive correlation has been found between girls' enrolment and parental education in Bangladesh (Islam 1982; Ahmed and Hasan 1984). The results of a sample survey have showed that 91 per cent of the children from the most educated families are enrolled in schools whereas only 12 per cent of the boys and 7 per cent of the girls from illiterate families are in schools (PEDP 2002).

Some have indicated that increasing the number of schools would not necessarily foster larger enrolments. Lack of physical facilities such as toilet, discourage attendance of girls more than that of boys (Islam 1982, Ahmed and Hasan 1984). Another report has found that enrolment of girls is negatively associated with distance because parents may be unwilling to allow girls to cross a major road or a river on the way to school (PEDP 2002).

While socio-economic factors have been found to be the main barriers to female educational opportunities in Bangladesh, there are also studies indicating that factors conducive to learning could be present in societies with socio-economic constraints. One study has reported that educational performance is much better in China despite the existence there of powerful patriarchal biases as in Bangladesh. It has also been argued that the low female educational achievements in Pakistan and Bangladesh may not be the consequence of cultural biases based on religion. Muslim societies elsewhere have made remarkable strides in this field. The South East Asian countries of Indonesia and Malaysia have high primary enrolment rates for girls and high adult female literacy rates (Haq and Haq 1998). Another report has drawn attention to the achievements of countries like Kenya, Vietnam and Tajikistan which have a lower per capita income than Bangladesh but literacy rates much higher than those of the latter (UNESCO 1995). Studies in Bangladesh have mainly focused on socio-economic factors affecting educational retention and achievement of girls. Very little attempt has been made to investigate school effects on students' achievement in Bangladesh.

Effective-Schools Research in the Developed Countries

Over the past decades, researchers have identified a number of school and classroom factors which seemed to make the difference between effective and ineffective schools. Studies have attempted to measure the school effects on student achievements by using qualitative and quantitative methodological approaches, including case studies, outlier studies, program evaluations, regression analyses, multi-level data models, longitudinal studies, and experimental designs, alone or in combination.

The Coleman report, published in 1966 has been one of the earliest studies on schools effectiveness. The main objective of the Coleman report, "Equality of Educational Opportunity" was to investigate the nature and extension of inequality in US public elementary schools (Coleman et al. 1966). The report has found that a measure of average social background of school peers (peer influence) explained most of the variability in student standardized test scores. Neither expenditures, nor pupil-teacher ratios, nor other school variables or student characteristics are relevant (Coleman et al. 1966). The report has maintained that students' rate of achievement could be better predicted from information on family situations than by knowing which schools they attended. In the early 1970s, Jencks (Jencks et al 1972) reviewed the information contained in the Coleman report and corroborated its findings. He has concluded that schools do not have as much influence on student academic achievement as family characteristics and social class. A large-scale study of science achievements in nineteen high and low income countries conducted for the IEA by Comber and Keeves (1973) and of reading

achievements in fifteen countries by Thorndike (1973) have also found that differences in schools have no significant impact on student achievements.

Effective-schools research originally developed as a reaction to the prevailing results of the input-output studies: that school did not matter. After controlling for socioeconomic status and other student traits, researchers have been able to establish certain crucial differences in the ways in which schools are conducted and organized and relate them to levels of student achievement. Weber (1971) has been one of the first scholars to attempt an exploratory work in this direction. Weber has done four in depth case studies of low-SES (Socio-Economic Status) inner city schools. His "Inner-City Children Can Be Taught to Read: Four Successful Schools" has been a pioneering study of the processes at work in effective inner-city elementary schools. By systematically analyzing student achievements in reading and examining other features of third-grade classrooms in the sample, Weber has posited eight characteristics including additional reading personnel, use of phonics, and individualization, among others that distinguished these schools from less successful schools. He has focused not on material inputs but on school processes, which he assumes, are more likely to explain differences in achievement. Rutter et al. have studied twelve inner-city secondary schools in a disadvantaged part of London and conclude that "to an appreciable extent, children's behavior and attitudes are shaped and influenced by their experiences at school and in particular, by the qualities of the school as a social institution" (Rutter et al. 1979, p179). In a further research Rutter has found that the school features that matter are the following: a) high levels of reward b) adequate school facilities c) extensive opportunities for students to take responsibility d) high

academic requirements and e) school staff consensus about academic expectations, norms, and discipline (Rutter 1979).

In the article titled "Effective School for the Urban Poor" Edmonds has (1979) identified the following attributes of effective schools: strong leadership, high expectations for student achievement, an orderly atmosphere, attention to basic skill acquisition, the use of frequent monitoring of students, and frequent assessment of student progress. He concludes that "all children are eminently educable and the behavior of the school is critical in determining the quality of the education ..." (p 20). Edmonds most salient contribution was the articulation of a model for characterizing effective schools.

After the ground-breaking work of Edmonds (1979), other researchers have attempted to identify the attributes of successful schools. Purkey and Smith (1983) in "Effective Schools: A Review", have presented a comprehensive analysis of the effective school literature carried out until the early 1980s. They have examined school level program evaluations, outlier studies, and case studies and reported that some of the findings of the research they reviewed contradicted the findings of Coleman et al (1966). Purkey and Smith (1983) have found five recurring features in most of the cases they reviewed.

These are: a) strong leadership, b) high academic expectations for students, c) clear goals, d) staff development programs and e) tracking of student progress. Brookover et al (1996) have summarized the profile of an effective school by describing its ideology, organizational structure and instructional practices. Their conclusions are similar to the findings of Purkey and Smith (1983). They have argued that the ideal school has a) an ideology that allows teachers to have confidence in students and where students are given

high expectations to achieve; b) an organizational structure that has clear roles for the principal, teachers, and students; and c) a clear instructional practice and constant monitoring of student progress. They have concluded that schools close to this ideal would succeed despite their location and the type of community they serve. They maintain that factors such as school goals, expectations, discipline, and reward systems within a school could either advance or hinder student success in schools.

The conclusion that students' achievement is overwhelmingly determined by home background factors (Coleman 1966) is challenged by Heyneman and Loxley (1982, 1983). They resubmitted the IEA data to a new process of variable selection to find that, whereas in developed countries, home background of students mattered much more to achievement than school quality, the reverse was true in low income countries.

Teddlie and Stringfield 1993 described the Louisiana school effectiveness study, a decade long project that identified the characteristics of 16 effective elementary schools over an 8 year period. Data showed that elementary schools can raise student achievement and that improved achievement can persist over time. Context such as school location, student background, and grade level influences which improvement strategies are successful. Findings also demonstrated the importance of the principals' leadership and the interaction between and school and classroom effects.

Berliner (1985) has cited multiple references to support his contention that the level of funding is directly related to levels of student's achievement. Resources (financial,

material and human) are of critical importance. According to Greenwald et al. (1994) "school resources are systematically related to student achievement and those relations are large [and] educationally important" (p.384).

A significant number of researchers have confirmed the importance of the role of principal as instructional leader in determining effectiveness of schools (Brookover et al., 1997, Brookover and Lezotte 1979, Deal 1987, Taylor 1990, Levin 1993, Heck 1993, Cotton 1995, 2000, Bell 2001, Walberg 2002 among others. According to Berman and McLaughlin 1975, the principal must be a facilitator of change. Principals in effective schools were characterized as task-oriented, organized, skilled in the delegation of work, made sure the work was completed, well organized, and manifested 'high energy' levels (Austin 1878; Felstenthal 1982, Vallina 1978, Venezky and Winfield 1979). Levin (1993) have stated that the principal engages in "constant personal surveillance of activities taking place in the school" (Levin 1993, p.18). Cotton (2000) has indicated that an effective principal ensures the alignment of curriculum, instruction, and assessment. According to Davis and Thomas (1989), the principal continually seeks to preserve and maximize instructional time. When effective principal observes classroom instruction, he or she provides to teachers both positive and constructive feedback.

Levine and Lezotte (1990) have organized and subdivided correlates of effectiveness within a large number of headings using diverse terminology. Those correlates similar to Edmond's (1979) model are 1) a productive school climate and culture; 2) a focus on student acquisition of central learning skills; 3) appropriate monitoring of student

progress; 4) practice oriented staff development; 5) outstanding leadership; 6) parent involvement, 7) effective instructional arrangements and implementation; and 8) highly operationalized expectations and requirements for students

Levin and Lockheed (1993) have maintained that the commitment to academic achievement on the part of the staff of a school is a "key consideration" and is used frequently in "differentiating between more or less effective schools" (p10). They have stressed on the importance of clear goals or mission in ensuring staff commitment and school effectiveness. They have argued that the mission of the school not only represents the faculty's commitment to learning but also provides a focus on results, whereby staff, through much collaboration, is able to "cope with and overcome many frustrations and obstacles encountered in striving to improve learning for all students (p 11). Others have also shared the view that in effective schools, instructional objectives and school goals are defined and clearly stated. The entire school day is focused on academics, and time on task is highly valued (Cotton 2000).

Of late, increasing attention has been given in investigating the relationship between classroom level factors and student achievements. A study on US schools (Wang and Walberg 1993) has shown that good curricular materials have a profound effect on student learning. This is particularly true when the introduction of such resources is coupled with an improvement in classroom management. Consistency of goals, content, instruction and evaluation promote student learning. Classroom practices exert almost as much influence on student learning and academic achievement as student background

factors. Fraser et al's (1987) synthesis of 2,575 investigations from around the world have brought together individual bivariate studies on the effects of certain specific factors on student outcomes. It has been found that from twenty-six classroom level factors considered, the strongest correlated to student outcomes are reinforcement, acceleration, reading training, cues and feedback, science mastery, cooperative programs, reading experiments, personalized instruction, adaptive instruction and tutoring. Marzano (2001) has argued that considering all other factors, opportunity for student learning in the classroom has the strongest correlation to academic achievement. The grouping of students, group task and the delivery of instruction are also related to student achievement (Brookeover et al 1997, Cotton 2000, Levine and Lezotte 1990).

In a synthesis of research on effective teaching and effective school, Wang and Walberg (1991) have identified 228 variables considered important to learning. Their analyses rated classroom instruction and climate variables as the third most important category after program design variables and out of school variables. A more detailed analysis revealed the relevance of certain variable sub-categories with metacognition in first place, classroom management in second, quantity of instruction in third, student-teacher interaction in fourth, classroom climate in fifth and the influence of peer group last.

Perhaps one of the factors found most to be strongly related to student achievement has to do with teacher (Cuban 1998, Williams 1996, Ferguson 1991, Lewis 1999, Hanushek 2002, Marzano 2001, 2003, Fullan 1993, Anderson and Pellicer 1990, Lezotte, Levine, Brophy and Good 1986, Darling-Hammond 1997, 2000, Cotton 2000, Walberg 1986,

Haycock 2002/2003 among others). In an analysis of nine hundred Texas school districts with a more extensive data base than the Coleman study, Ferguson (1991) has found that teachers' expertise as measured by scores on a licensing examination, master degrees, and experience account for about forty percent of the measured variance in students' reading and mathematics achievement gains in Grades I through XI, more than any other single factor. Ferguson has found the variations in teacher expertise so great that after controlling for socio-economic status, the large disparities in achievement between black and white students are almost entirely accounted for by the difference in the qualification in their teachers. Spartz et al (1977) in their study of Delaware schools have found that effective schools had teachers who helped students by structuring the learning tasks by providing specific learning objectives, providing sufficient instruction time for lessons, breaking the lesson into logical sequences, matching instruction to student abilities, providing for student success, giving immediate feedback to students, assessing student mastery, properly spacing practice sessions, aiding the students in generalizing, and maintaining a coherent presentation. Brookover et al (1977) have come to similar conclusions in their study of Michigan schools. They noted that successful teachers taught a lesson until the students understood it before moving on to new material.

After reviewing sixty education production function studies, Greenwald, Hedges and Lane (1996) have found that teacher education, ability, and experience, along with small schools and lower teacher-pupil ratios are associated with significant increases in student achievement. Hanushek (1994) in his review of studies has reported that 35 of the 63 studies give a significant positive effect for teacher's education, 26 no significant effect,

and 2 significantly negative. His review has found no compelling support for the belief that higher salaries would lead to better quality teachers. In a later study, Hanushek (2002) has concluded that having three years of good teachers in a row would overcome the average achievement deficit between low-income kids and others" (p 3). According to Levin (1980) three teaching components, taken together determine the quality of instruction and the allocation of time: a) teacher capacity, b) teacher effort, and c) the time devoted to teaching. Teacher capacity and effort determine the quality of instruction. Teacher time allocation determines the opportunity to learn.

Marzano (2001) has argued, "if we can identify what those highly effective teachers do, then even more of the differences in student achievement can be accounted for" (p3). He has pointed out that in the classroom, the effective teacher focuses on communicating learning objectives and expectations to students, offers both verbal and written directions, ties current lessons to previous learning, includes demonstrations or modeling of concepts followed by guided and independent practice, poses engaging questions, gives immediate feedback and specific praise, and reviews and re-teaches concepts or skills as necessary using a variety of strategies and materials. Effective teachers are able to foster significant gains from children regardless of ethnicity or income. Brundage (1980) has found that effective teachers used time efficiently, using every opportunity to provide instruction and every effort was made not to waste time; whereas ineffective teachers did not organize classroom time well, spent inordinate amounts of time in non instructional activities, and lowered expectations of student achievement.

Boylan and McSwan (1998) have investigated what motivates teachers to remain in teaching. They attempted to identify characteristics and factors in situations where teachers had stayed for a period of six years or longer. They have found that all of the teachers in their study experienced a high level of professional and personal satisfaction and contentment. Conversely, unfulfilling teacher preparation experiences, ineffective school leadership, the issues of isolation often contributed to substandard instruction, as well as teacher attrition issues.

Bossert (2002) has pointed out that good schools share two main characteristics: a) they have excellent teachers, and b) they have a positive moral climate. He adds that the second characteristics help to recruit good teachers because they feel comfortable working in a conducive and stable environment. Wagner (1989) has emphasized that teachers should and in reality must formulate learning and performance objectives for their students; but before teachers can develop appropriate objectives and establish a sensible plan for teaching, they must be knowledgeable about skill development and the skill levels at which their students are functioning. This is especially true during early and middle years of schooling, when basic skills must be acquired in reading, writing and computation, and when an understanding of fundamental concepts must be established in relation to the various physical and social sciences (p. 122-123) Cotton (2000) has suggested that through high expectations, a supportive environment for learning in the classroom is created. It is critical for high expectations to be communicated to students and staff alike. In regards to students, teachers should hold learner accountable for completing assigned work and for class participation. Teachers, in providing

opportunities for students to reach their full potential, should allow the "time, instruction, and encouragement necessary to help low achievers" (p.17).

Monitoring of student progress has been found to be strongly related to student achievement. Walberg (2002) has argued that assessment provides the expectation for what students are to learn, helps in identifying progress made towards these learning goals, and highlights any necessary improvement that must take place. Strong (2002) has described assessment as "central element of the teaching process" (p.55). Gandal and McGiffert (2003) have maintained that, "just as medical tests help diagnose and treat patients, rigorous and meaningful education assessments can help ensure the academic health of all students" (39). Levine and Lezotte (1994) have suggested utilizing a variety of assessments to gauge student achievement. Brimijoin, Marquissee, and Tomlison (2003) have stated that the role of the teacher as "data collector" is three-dimensional: "to determine students' prior understanding and achievement, to track their responses to moderate challenges, and to measure their outcomes against expected performance goals" (p71). Spartz et al (1977) in their evaluation of Delaware schools found that effective schools not only monitored progress, but provided diagnostic information on students. The effective schools provide more specific information about student progress than less effective schools. Taylor (1990) in her examination of 12 case studies came to a similar conclusion.

Decentralization, community involvement and accountability in education have received attention from researchers in recent years. A recent study (Wossman 2003) which

involved a large sample of more than 260,000 students from 39 countries, has found that central control of curriculum and textbooks was positively correlated with mathematics and science results, while autonomy at the school level in formulating schools budgets and hiring teachers were also positively correlated with test scores. Roberts-Schweitzer, et al. (2002) cite a review of SBM studies by Littlewood and Menzies (1998), which found that only 11 of 83 studies reviewed could identify actual improvements in teaching and learning outcomes, although other beneficial results were identified, such as increased interest and financing from the local community. The Roberts-Schweitzer et al. (2002) review indicates that the most positive effects on students are reported when the local community can directly influence school management, but it does not specify what these positive effects are. Part of the difficulty in such studies is isolating the influences of so many factors, and it appears a randomized evaluation approach could be applied in such situations.

Danielson (2002) has maintained that it is crucial that schools and school districts continue to foster and maintain relationships and effective reciprocal communication with families and members of the community. He recommends that schools expand their efforts to develop better relationships between the school and the home and broader community. Marzano (2003) has argued that "it is the responsibility of school to initiate communication and provide an atmosphere in which parents desire such communication" (p 48). Studies by Armor et al 1976, Coleman et al 1981, Levine and Stark 1981 have found that parent involvement and support are an important factor in student

achievements. Brooker et al 1979 found strong correlation between parental involvement in the school and student achievement.

Taylor and Nolen (2004) have maintained that “A responsible accountability system will be classroom based and will include the professional judgment of educators and multiple indicators and assessments, qualitative and quantitative, over extended periods of time, that are sensitive to the needs of each individual student” (p 156). Wagner (1989) has argued that accountability in education should include the following: i) establishing a fairly definitive set of performance or learning objectives; ii) evaluating or measuring student progress toward such objectives over a period of time; iii) reporting student progress as measured; and iv) either assigning or withholding rewards on the basis of such performance.

Effective School Research in the Developing Countries

Replicating the design of the Coleman Report (1966), Heyneman’s (1976) study of seventh grade students from 67 primary schools in Uganda found significant effects of school facilities and weak effects of family background on academic achievement. He believed these results to be due to the greater variance in physical facilities of schools and the smaller variance of social class in Uganda. Following Heyneman’s lead, more than 60 studies of school effects had been conducted by 1989 in a wide range of developing countries, the majority of which found significant effects of school factors, net of family background, on achievement. Most of these studies utilized the production function

approach and regression analysis to identify the specific determinants of achievement and make inferences about the relative importance of the various inputs to student performance. From these studies, some generalizations can be made regarding which school inputs increase student achievement in less-developed countries. Studies in developing countries have found that basic material inputs such as textbooks, libraries, and teacher training strongly determine achievement (Heyneman & Jamison 1980, Heyneman & Loxley 1983, Lockheed et al 1986, Behrman & Birdsall 1983). The general conclusion is that basic material inputs are most important in contexts that have inadequate or very unequally distributed educational resources (developing countries) but are less important in contexts that have achieved a minimum level of basic resources (industrialized countries).

The study on primary schools in Brazil, emphasizing its focus on the poor in “Educational Performance of the Poor: Lessons from Rural Northeast Brazil” Harbison and Hanushek’s (1992) have concluded that on balance their results do not support such an overwhelming importance of SES variables in the educational performance of poor pupils. Harbison and Hanushek (1992) also note that in comparison to data from the United States, the confirmation rate of school facilities is much higher for developing countries (64.7 percent versus 16 percent). They think that the quality of facilities may be more important in the more disadvantaged settings of developing countries. Similar results are found in East Africa (Armitage and Sabot 1987) and also in Ghana (White 2004). It is not that SES does not matter at all, but that the contribution of schooling is much larger for developing countries than is the case for developed ones. Case studies of

India (Abadzi 2002 and Pandey 2000) show that community involvement in school design and procurement of school buildings has been a positive contribution to expanding school facilities at reasonable standards of quality. It appears that to go beyond a basic level of building quality does not yield much extra benefit for learning achievement. Yet to allow facilities to deteriorate or use very substandard temporary buildings and classrooms can also hold back learning achievement (Glewwe 2002 and Fiske 2002). The importance of providing sufficient textbooks, especially when they have been scarce, has also been documented in the OED Ghana study by White (2004). This study has focused on available test scores in 1988 and again in 2003 in order to assess learning improvements over the intervening 15 years. A rigorous multiple regression analysis showed large gains in reading and mathematics, and improved textbook provision was a significant factor in this.

Hanushek's review (1986) of production function studies in the United States have shown average spending to have risen over time while test scores remained flat, a problem he attributes to the weak affect of school inputs. His subsequent review in developing countries (1995) reached essentially the same conclusion. Kremer (commenting on Hanushek's article, 1995), while agreeing with the overall conclusion about aggregated inputs, has maintained that particular input resources in developing countries, such as more text books or use of educational radio, clearly demonstrated to affect student test scores.

In “Improving Primary Education in Developing Countries,” Lockheed and Verspoor (1991) have investigated classroom level determinants and found that the year round availability of certain instructional materials such as, textbooks, paper and pencils, blackboards, chalks, and maps have a stronger effect on student achievement in developing countries than in developed countries. The amount of stimulation given by the prevailing material conditions has been especially important in preschool or primary grade levels where the stimulus received by students from home is very low. The findings of Lockheed and Verspoor (1991) have been corroborated to those of Riddel (1989). Riddel has found that school factors are more important as determinants of academic achievements in developing countries where the relative scarcity of school resources and educational facilities make their marginal contribution to academic achievement more important than in developed countries (Riddel 1989). UNESCO published a study (Fiske 2000), which summarized the multiple regression results that tried to identify factors that contribute to achievement. Fiske cites a number of studies that have reached the general conclusion that increasing specific education inputs generally matters more for low-income countries than they do for the high-income ones, mainly because the level of these inputs is much lower in poor countries.

Pritchett and Filmer (1999) have presented compelling evidence that there could be significant efficiency and productivity gains by reallocating the share of expenditures to areas of higher marginal productivity, such as learning materials (textbooks and other types of instructional materials). Based upon education production function research done for northeast Brazil (Harbison and Hanushek 1992) and for an urban area of India

(Kingdon 1996), Pritchett and Filmer estimated the marginal product per dollar of each input. They found that increases in test scores per dollar spent on learning materials was about 19 times greater than that of increases in teacher salary in the Brazil case. The allocative inefficiencies identified by Pritchett and Filmer may be a bigger part of the story in low-income and middle-income countries where textbooks and quality of facilities is at a lower level than in the high income countries.

Based upon their database of 47 countries, Bruns and Mingat (2003) have developed a set of indicative benchmarks for key parameters of the primary education system that is associated with the best performance. These are a) Service Delivery Variables and b) Finance Variables

The results of analysis by Lockheed and Longford (1989) have indicated that some teacher and school characteristics are positively associated with student learning in Thailand. These characteristics are: a) the percentage of teachers in the school that are qualified to teach mathematics, b) an enriched mathematics curriculum, and c) the frequent use of textbooks by teachers. They have also found that some teaching practices are negatively related to learning. These are a) the frequent use of workbooks, and b) time spent maintaining order in the classroom. Lockheed and Longford however, have maintained that these causal statements do not hold if they are to be interpreted as the result of an external intervention. Obtaining additional textbooks for the schools is not a simple procedure unrelated to education process and management decisions: it is, itself, an outcome variable related to some unknown aspects of the education process. Similarly,

discarding workbooks might not lead to improved outcomes, unless all the circumstances that lead to reduced use of workbooks are also present or are induced externally (p.145)

There are many individual reports of cases where excessively low teacher salaries can have a negative effect. Excessively low salary can be defined by comparison to similar occupations that are likely to compete for teachers, and the cost of living. If teachers find it difficult to maintain their living standard, as has been documented in some cases, the results can be absenteeism and low morale on their part while they pursue second jobs, leading to declining student performance (Filmer and Lieberman 2002, for an example in Indonesia).

After reviewing eight case studies from different parts of the Third World and the US, Lockheed and Levin (1993) have presented some common features found in all of the effective-schools strategies. These features resemble very closely what has been found in developed countries. They have stated that effective schools are characterized by the following: 1) a central, strong and organic philosophy or vision that provides direction and strength to the school project and from which clear goals and commitments are derived; 2) empowerment of teachers, students and parents to take responsibility for the project, for their decisions and for the consequences of their decisions; 3) active learning where students are responsible for their own advances, as opposed to traditional learning where students are passive recipients; 4) higher teacher expectations for what students can accomplish; 5) the successful search for additional resources which are necessary in very poor settings; and 6) community involvement in the sense that the local community

is expected to contribute to the school and the school is also expected to contribute to community. Levin and Lockheed (1993) have concluded that creating effective schools in developing countries require attention to the following: a) basic inputs, such as curriculum, instructional materials, learning time, and teaching practices, b) facilitating conditions, such as community and parental involvement, school professionalism, and flexibility, and c) the will to change, vision, and decentralized solutions.

Fuller and Clarke (1994) after reviewing forty-three educational research studies (conducted in the period 1988-1992 in Asia, Africa, and Latin America) have found significant positive association of student achievement with the following: a) availability of textbook and supplementary reading materials; b) teacher qualities; and c) instructional time and work demands placed on students and frequency of homework.

Scheerens (1999) has reviewed thirteen school effectiveness studies in developing countries conducted in the period between 1993 and 1998. He has found "significant effects on student achievements when classroom pedagogy and school management variables were included" (p. 40). He has stressed on the important role in developing countries of material support from the local community, parental support, structured teaching, and educational leadership. In "Monitoring School Effectiveness in Developing Countries," Scheerens (2001) has argued that between school differences are considerably greater in developing countries than in developed ones. He has maintained that with respect to developing countries, centralization is likely to lead to more effectiveness in situations where level of education of parents is low and the school's recruitment area is poor.

A group of thirteen Latin American countries in conjunction with UNESCO (1998) have done a study on primary education in Latin America. This was the first international study, employing uniform tests and questionnaires and covering 50,000 third and fourth grade students. The results have indicated that increasing resources for schools would not directly lead to higher student achievement unless these resources are used efficiently by teachers. Institutional factors, such as, the degree of decision-making autonomy given to schools and teacher's emphasis on performance assessment, increases a country's academic achievement.

A World Bank report (1997) on India has suggested that the gender gap in learning achievement is smaller in schools with a higher share of female teachers (p 164). Another study (World Bank 1998) is done on the impact of education reforms in Pakistan. This study has measured the success of an effort to encourage female enrollments by increasing the supply of both schools and female teachers and by encouraging parental involvement through the creation of community public girls' schools in rural areas of Baluchistan. It has been found that the community support program increased girls' enrollment by an average of 22 percentage points. Moreover, the opening of such schools increased boys' enrollment by an average of 9 percentage points, even though boys' school had previously been available.

One report (UNICEF 1992) has maintained that curricular approaches that are flexible and individualized are particularly effective because they can accommodate the needs of a girl whose attendance may be irregular because of home obligations. Changes in school

management and orientation are also linked to improved educational retention of girls. In particular, localization and decentralization have an impact on a community's level of support for its schools and the willingness of parents to enroll their children.

A comprehensive study on developing countries (UNESCO 1990) has found that the provision of separate toilet and water supply for girls, the construction in some cultures of single-sex schools, the presence of a female teacher, the introduction of appropriate and relevant curricula, and the location of schools closer to communities so that girls would not have to travel long distances to study have been related to education enrolment and retention of females.

Researches in individual developing countries have found a number of determinants of school effectiveness. Studies in Thailand and India have found that the presence and active use of school library raise achievements (Thorndike 1973). More than one shift of classes each day strains the effectiveness of resources and lowers achievement in Malaysia at the secondary school level (Beebout 1972). Comber and Keeves (1973) have found no evidence that homework raises student achievement in India and Thailand. Teachers' years of schooling raise student achievement in India (Comber and Keeves 1973; Heyneman and Loxley 1983). Teachers' years of schooling do not affect student achievement in Indonesia (Sembiring et al.1981); upgrading the skills of teachers however, leads to higher student achievement (Sembiring and Livingstone 1981). Higher salaries attract stronger principals, improve the instructional programs, and raise achievement in Indonesia at the secondary school level (Sembiring and Livingstone

1981). Research in Thailand by Raudenbush and Bhumerat (1991) have led them to conclude that “There is clear evidence of a link between the intensity of internal supervision a teacher receives (supervision provided by the principal or by designated teachers) and the academic achievement of that teacher’s students” (p 36) The researchers have added that there is equally strong evidence that students view teachers receiving such supervision as providing higher quality instruction than teachers with less supervision. A related study in Thailand (Wheeler et al. 1997) using observational and interview techniques supported the above findings. Wheeler et al. (1997) have found that in several of the most effective schools, regular internal supervision was a critical component in the school principals’ strategy to create and sustain a strong academic focus. One study reported that in Tamil Nadu of India, a lunch intervention was particularly successful in narrowing the school attendance differential between boys and girls. This program also had a similar compensatory impact on other traditionally bypassed groups, including rural and low-caste children (Rajan and Jayakumar, 1992). Levinger has argued that nutritional supplementation, health screening, clinic referrals, and de-worming represent intervention packages that can improve the active learning capacity of all educationally vulnerable children (Levinger, 1994).

Willms and Somers (2001) have investigated how school outcomes differed in thirteen Latin American countries. For this research, Willms and Somers employed hierarchical linear models (HLM) to identify the relationship between schooling outcomes and family, classroom, and school variables. Data collection included achievement testing in language (Spanish) and mathematics. This approach allowed the examination of whether

the effects of various family and school factors vary among communities. They have found that the most effective schools are likely to be those with the following characteristics: a) high levels of school resources, b) classrooms which are not multi-grade and where students are not grouped by ability, c) children are tested frequently, d) high parental involvement and e) a positive climate especially with respect to classroom discipline.

What We Have Learned So Far?

Since the publication of the first modern school effectiveness study, by Coleman et al, in 1966, a vast amount of evidence to support the notion that school factors can make a difference to pupil progress has been accumulated. The studies undertaken by researchers (Weber 1971; Reynolds 1976; Heyneman's 1976; Heyneman & Loxley 1983; Harbison and Hanushek's 1992; Armitage and Sabot 1987 among others) interested in measuring the school effects on student achievement have indicated that schools can make a difference in students' outcomes beyond family socio-economic and racial characteristics. These studies have suggested that what the school does is relevant to determining the success or failure of its students, regardless of the type of community it serves and social class of its students. In general, school-effectiveness studies focusing on specific schools have been able to show that some schools systematically outperform others over time, and that their student achievement is consistently higher than would have been predicted by the socio-economic status of their students. If schools are good enough, they can more than make up for the handicaps brought about by initial student

differences in endowments (Finnan 1996, Good and Brophy 1986, Levin 1988 and 1985, 1992, Purkey and Smith 1983, Reynolds 1992).

In contrast to the Coleman Report (1966) conclusion that schools are less important than SES in determining education outcomes, many researchers (Heyneman & Loxley 1983; Harbison and Hanushek 1992; Armitage and Sabot 1987; White 2004) based on evidence from the developing countries have concluded that schools matter much more in the setting of poor countries. A large part of the reason behind this appears to be the principle of diminishing returns in the setting of poor countries providing more education resources has a larger impact than in a rich country where school resources are already at a relatively high level (Harbison and Hanushek 1992, Pritchett and Filmer 1999).

In general, research in developing countries have shown significant relationships between student cognitive achievement and school and classroom variables like availability of textbook and supplementary reading materials (Lockheed and Verspoor 1991, Fuller and Clarke 1994) teacher qualities and instructional time and work demands placed on students and frequency of homework (Fuller and Clarke 1994), quality of facilities (Pritchett and Filmer 1999, Glewwe 2002, Fiske 2002), structured teaching, and educational leadership, (Scheerens 1999), curriculum, instructional materials, learning time, and teaching practices (Levin and Lockheed 1993, Lockheed and Verspoor 1991), parent and community involvement (Scheerens 1999, World Bank 1998, Willms and Somers 2001, Levin and Lockheed 1993). The few studies that have examined the role of teachers and administrators as managers of student learning find significant effects of

teacher quality (Lockheed & Komenan 1989), classroom management and hours of instruction (Saha 1983, Fuller & Snyder 1991, Fuller et al 1994), and classroom dynamics (Lloyd et al 2000) on student achievement. These results are generally consistent with those found in the United States and other developed countries (Barr & Dreeben 1983).

Despite this wealth of information, very little is known about school effects on student achievement in the context of Bangladesh. It is unknown, how school and classroom factors affect student learning. For example, how important are teacher efforts' in determining learning achievement of students. Or why different schools (or even classrooms) may respond to a given set of inputs in different ways. It is unknown how process variables such as 'instructional supervision' or 'classroom monitoring' affect learning outcomes in the context of Bangladeshi schools. Or to what extent schools are responsive to the needs of students?

This study has focused on six key variables identified by researchers in developed and developing countries, as related to student achievements. These are: 1) Facilities, Resources and Services Available to Students; 2) Curriculum Design and Modes of Delivery of Lessons; 2) Teacher Inputs; 4) School Evaluation Capabilities; 5) Parent and Community Involvement in School Activities and Decision-Making; and 6) Students' Needs and Expectations. A significant amount of studies (Edmonds 1979, Purkey and Smith 1983, Heyneman & Loxley 1983, Mortimore et al 1988, Riddell 1989, Lockheed and Verspoor 1991, and Levine 1992 among others) have found facilities, instructional

methods, teacher inputs, parents and community involvement, monitoring and supervision of classrooms and schools, as the determinants of student achievement. The main aim of this study is to assess within the circumstances of Bangladeshi schools, the differential effects of these variables.

Much of the research in developing countries on school effectiveness has been based on input output model. Relatively few of these have been expanded to include school organizational and instructional variables. There has been only limited work carried out on instructional practices primarily through observation of in-class teaching practices – which this study intends to do. There is also a notable lack of research on how community factors, operating in conjunction with schools, shape educational outcomes in the context of less-developed countries. The variables included in this study such as, students needs and parents/guardians' expectations, classroom and school monitoring and supervision have been studied very little in school effectiveness analyses and research. Curriculum is an important area of this study, but only a few of the production function or randomized evaluation studies have approached this in much detail.

Bangladesh has a clear need for a major research effort on effectiveness of schools which could serve as a guideline for reform decisions to improve learning outcomes of females or the population in general. This dissertation aimed to contribute towards this critical research effort.

Chapter III Research Findings and Analysis

This Chapter presents the findings from the study, combining both qualitative and quantitative data to illustrate and analyze the impact of school management on learning outcomes of females, focusing on the six key variables mentioned in Chapter I.

A. Key Findings:

Among the three types of schools, the average achievements of students and of girls in GPS schools were low compared with those in RNGPS and BRAC schools. The average achievements of students and of girls were the highest in BRAC schools. A combination of variable factors explains the lower learning outcomes in GPS schools.

The key findings are as follows:

- 1) Textbooks were not available in GPS schools in a timely manner. GPS students had to wait for two to three months to obtain all their textbooks after the beginning of the academic year. Non availability of textbooks contributed to low attendance of students. Textbooks were not based on the actual situation of the target audiences and their concerns. The rural GPS school had no toilet facilities for students which discouraged school attendance of girls. Classrooms in GPS schools were inadequate to accommodate all the children enrolled.

2) Students in GPS schools received less contact time and classroom instruction time, both in comparison with RNGPS schools and with Government of Bangladesh standards. Low school attendance, late arrival and early departure of GPS teachers contributed to low contact hours and classroom instruction time. Training, non instruction related government duties such as, student registration, textbook management, voter registration, health and immunization campaigns, and personal affairs such as, income generating activities took teachers' time away from instruction while the schools were in session. Teacher absenteeism contributed to class cancellation, school closing, and student absenteeism. Parents in rural areas preferred children learn practical skills. Music, and Arts and Crafts classes were not held regularly in GPS and RNGPS schools.

3) The GPS schools were understaffed. Rural marginally staffed GPS school was more vulnerable to closing due to teacher absenteeism. The rural GPS school had no female teacher. The gender imbalance in teaching positions was high in GPS schools compared with RNGPS and BRAC schools. Most guardians in the rural areas stated in interviews that they preferred female teachers to teach female children. BRAC schools had female teachers only. The majority of students in BRAC schools were girls. BRAC schools had the highest average student attendance rate.

Violation and manipulation of rules in teacher selection contributed to the recruitment of unqualified people as GPS teachers. The knowledge and skills of teachers remained seriously deficient. Continuous assessment of student learning and use of lesson plan

were present in those schools with higher learning outcomes - urban RNGPS (School # 2) and BRAC schools (School # 5 & 6), but not in GPS schools.

4) The School Management Committee (SMC) had very little involvement in the affairs of GPS schools. On the other hand, community was actively involved in the activities of RNGPS and BRAC schools. Teachers in these schools were recruited with the assistance of the local community. The SMC members of RNGPS schools provided financial and material support. In BRAC schools, parents were involved in setting school hours, monitoring attendance of teachers, and hours of operation of schools.

5) Among the four head teachers, the head teacher of urban RNGPS school appeared to have more interest in school development. Special coaching to assist children with learning difficulties, recruitment of volunteer teachers, regular staff and SMC meetings, arrangement of special funds to meet urgent needs of school – all these were observed only in urban RNGPS school. The textbooks arrived in this school earlier and school year also began earlier than in the case of GPS schools. In BRAC schools, classroom learning and teacher attendance were regularly monitored by the POs who visited the learning centers once a week. They also visited homes of children who did not show up for days. Student and teacher absenteeism were the lowest in BRAC schools.

The field level education officials responsible for school inspection, supervision, and performance evaluation, visited the urban GPS and RNGPS schools which were in close proximity to sub district education office more frequently than the distant rural ones, rural

GPS and RNGPS schools. The urban GPS and RNGPS schools started on time and closed at official closing time on the days of school visits. Attendance of students was higher in these schools than in their rural counterparts. Teacher and student absenteeism were the highest in the rural GPS school which went without a visit from education officials in 2004. None of the GPS teachers reported that they had ever been penalized or even criticized for attendance lapses.

6) Education is free in GPS and BRAC schools. Children attending GPS schools however, were charged for textbooks and other supplies, and had to pay exam fees. Unofficial fees caused children to remain absent or leave GPS schools. Majority of parents stated in interviews that education expenses are major constraints to children's school enrolment and retention. Nearly half of the students in rural and urban areas reported using out-of-school tutors to help them. The average percentage of girls using private tutors was less than that of boys. Almost all parents stated in interviews that effective teaching could relieve the financial burden of private tutoring. Students of BRAC schools were not charged for education. No students of BRAC schools reported having private tutors. Most rural parents preferred children gain practical skills. Music, arts and crafts classes were held regularly only in BRAC schools.

B. Data in Support of Findings

1) Students of rural GPS school received two of the textbooks in March 2004 although the school year began in February. Nearly 22 percent students of GPS schools reported

that they could not attend school from the beginning of the academic year due to non availability of textbooks. About 90 percent guardians in the rural areas in FGD stated that the lack of toilet facilities discouraged girls' attendance to schools.

There were 2.8 classrooms for 287 students on average in GPS schools. GPS classrooms could accommodate about two-thirds of the enrolled students. The rural GPS had no toilet facilities for students. Gender issues and concerns were not adequately included in textbooks. In illustrations or drawings, depictions of women appeared far less than men, accounting for about 10 percent.

2) On average 13 percent of GPS teachers were found absent on the days of school visits compared to 8 percent in RNGPS schools, and none in BRAC schools. In the year 2004 while the schools were in session, over 90 percent GPS and 64 percent RNGPS school teachers undertook non instruction related government duties. At least one month of contact time with students at the beginning and at the end of the school year were sacrificed by teachers to administrative and non-teaching activities, such as student registration and textbook management. About 42 percent of GPS students reported that early in the school year there were often no classes if they come to schools. Fifty eight percent GPS teachers reported that they left school early because of domestic chores and income generating activities.

On average, teaching or "instruction" occupied 63 percent of the class time in the classes observed in GPS schools compared to 68 percent in RNGPS schools. In the rural GPS

school on average, teachers spent 50 percent of class time on instruction, compared to 56 percent in rural RNGPS school.

3) Four percent GPS teachers did admit in interviews that they had experienced problems due to favoritism and delays in appointment. The GPS schools were understaffed. The urban GPS school had 9 teachers for 332 students and the rural GPS school had only 5 teachers (1 of them was on deputation) for 241 students. The average numbers of female teachers in GPS, RNGPS, and BRAC schools were 1, 2.5, and 1 respectively. The rural GPS school had no female teacher. About 85 percent guardians in the rural area preferred female teachers in schools compared to 47 percent in urban area. Above 80 percent female teachers of urban areas stated in interviews that they preferred not to be placed in distant rural areas due to family reasons, accommodation and transportation problems. In BRAC schools, female teachers accounted for about 90 percent, and 85 percent students were girls. BRAC schools had the highest average student attendance rate, about 80 percent.

5) SMC monthly meetings were not held regularly in GPS schools. About 60 percent members on average were present at SMC meetings in the urban GPS school. As learned from interviews with head teachers, and from FGDs with teachers and SMC members, SMCs did not provide financial and material support to GPS schools.

On the other hand, the average attendance rates of SMC members in monthly meetings in RNGPS schools were about 75 percent. It was learned from head teachers and from FGD

with SMC members in RNGPS schools that the members provided electric fans, sports materials, furniture, financial help, and part time teachers in collaboration with local elites. The SMC chairman of urban RNGPS school observed classroom learning and teacher attendance. In BRAC schools, parents regularly monitored teacher attendance and school hours. Parents teachers monthly meeting were held regularly in BRAC schools. The attendance registrar showed that on average 80 percent parents attended such meetings.

5) The education officials visited the urban GPS and RNGPS schools four-five times in 2004, while they visited the rural RNGPS school once and the rural GPS school, the furthest from the sub district education office, went a year without a visit. Teachers appeared to be on time and attendance of students in urban schools was higher (on average 56 percent) than in their rural counterparts. In 2004, the number of days of operation of GPS schools was below 220 days, the lowest among the three types of schools. The number of days of operation of RNGPS schools (266-270) was higher in compared with GPS schools. BRAC schools remained open for 290 days, the highest among all. Late supply of textbooks and late start of academic year (in comparison to other schools), no toilet facilities for students, highest teacher and student absenteeism was observed in rural GPS school which was not inspected by education officials even once in 2004.

6) About 90 percent guardians in GPS schools reported that children had to pay for textbooks and other supplies although these were supposed to be provided free of costs.

No student or parent in BRAC schools reported of being charged for education. Direct cost of education was cited by 88 percent parents as major constraint to educating children. Nearly half (43 percent) of the total students in GPS and RNGPS schools, reported using out-of-school tutors to help them. The average percentage of girls using private tutors was (24 percent) less than that of boys. No student of BRAC schools reported using private tutors. Nearly 69 percent guardians of children of GPS schools did not give favorable opinion about teachers or schools. Thirteen percent guardians said that they saw no point of acquiring education which seemingly had little relevance to their lives. Among the reasons for not being happy with school 48 percent urban and 72 percent rural students reported “Cannot follow classroom teaching”, and 41 percent urban and 71.1 percent rural students reported “teachers do not explain adequately in class”. About 80 percent BRAC school students and guardians gave favorable opinion about schools.

Key Variables and Learning Outcomes of Females

Variable One: Facilities, Resources and Services Available to Students

Questions:

- a) Do physical facilities in Bangladesh schools meet student requirements?
- b) Do learning resources in Bangladesh schools meet student requirements?
- c) How financial resources are allocated?

A) Physical Facilities

The condition of physical facilities including, classrooms, water and sanitation facilities were poor and inadequate in rural GPS and RNGPS schools compared to those in their urban counterparts. The urban GPS and RNGPS schools were brick built single-storey buildings with tin roofs and cement floors. The urban schools had separate toilets for males and females and had access to safe drinking water. GPS schools, both in urban and rural areas lacked classrooms. The average number of classrooms in GPS schools was 2.8, which could accommodate only about two-thirds of the enrolled students. The learners of lower grades were found sitting congested in benches, hardly able to move. On average, there were 6 classrooms in RNGPS schools for 230 students on average.

The rural GPS and RNGPS schools had bamboo walls, tin roofs and cement floors. The rural GPS had no separate classrooms. A few woven bamboo screens were used as partitions, thus making the classroom a noisy and difficult place in which to concentrate. In one classroom, the 'blackboard' was so worn, that there was no 'black' left, in effect the teachers wrote on the bare wood. The school's boundary walls were full of holes and cattle wandered in and out. This school had one toilet; however, it remained locked during the school hour for exclusive use of teachers. The school had no toilet facilities for students. Above 90 percent female students in rural areas reported that non availability of toilet facilities in schools made it difficult to attend schools. The classrooms of rural schools were ill lit. The reasons for this, as stated by the head teacher of rural GPS school were low supply of electricity and little budget to pay for electricity bills. It was observed

that students suffered from heat and suffocating environment in classrooms. The rural schools appeared to have problems with keeping the premises clean and tidy. The rural GPS head teacher stated in interview that the school did not have budget for a cleaner.

The condition of school building, classrooms, furniture, desks, lighting of urban RNGPS was better compared to GPS and rural RNGPS schools. It was learned from discussions with head teacher and teachers that the community actively participated in building maintenance by providing financial and material support.

In BRAC schools, instructions were provided in one-room premises rented just for three to four hours per day. BRAC learning centers were single rooms with tin roofs, bamboo walls and mud floors. There were no benches, chairs or tables in the classrooms. The students sat on floor mats in U-shape. A tool, trunk, blackboard, some pictures, and a map of Bangladesh were common items in each learning center. The single room learning centers were decorated with artwork of students. Parents and teachers mentioned in interviews that in the rainy season mud floors become wet and unstable and difficult to keep clean. The BRAC learning centers did not have their own toilet and drinking water facilities. Arrangements were made by the schools through agreement with the local community for using neighbors' facilities by teachers and students.

Lighting and ventilation in classrooms of rural schools were particularly lacking. All schools lacked playground and sports facilities. Libraries, student counseling and health services were not available in any school.

Availability of Physical Facilities and Student Services by Different School Types is shown in Table 5.

Table 5: Availability of Physical Facilities and Student Services in Schools

	School 1 Urban GPS	School 2 Urban RNGPS	School 3 Rural GPS	School 4 Rural RNGPS	School 5 BRAC	School 6 BRAC
Type of Construction	Brick, single storey, tin roof	Brick, single storey, cement floor	Bamboo wall, tin roof, cement floor			
No of classrooms/learning centers (BRAC)	6	7	3	5	5	5
Electricity	√	√	√	√	√	√
Light	inadequate	inadequate	inadequate	inadequate	inadequate	inadequate
Fan	inadequate	inadequate	x	x	x	x
Furniture * 1	Adequate	Adequate	inadequate	inadequate		
Toilet * 2	2 (1M, 1F)	2 (1M, 1F)	1	2 (1 not in		

				use)		
Clean water	√	√	x	x	x	x
Playground	√	√	√	√	x	x
Sports facilities	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Noise pollution	√	X	√	√	√	x
Ventilation	x	√	x	x	x	√
Library	x	X	x	x	x	x
Student Counseling	x	X	x	x	x	x
Health Services	x	X	x	x	x	x

* ¹ In BRAC schools, students sat on floor mats in U-shape.

* ² The BRAC learning centers did not have their own toilet and drinking water facilities, the teachers and the students used neighbors' facilities.

B) Learning Resources

The textbooks for primary level are prepared by the National Curriculum and Textbook Board (NCTB), a public agency. In addition to those published by NCTB, BRAC schools had their own textbooks. NCTB textbooks are published in Dhaka (central office) and distributed throughout the country. Government policy mandates that grades I and II students receive new textbooks and grades III through V receive 50 percent new textbooks and 50 percent recycled or old textbooks every year.

The schools visited presented a wide variation in the receipt of textbooks. In the rural GPS, a workable number of books were not available until March and about 1 percent student was yet to receive them. Guardians and teachers of rural GPS and RNGPS schools complained that the texts were usually not available at the beginning of the school year.

BOX 1: Availability of Textbooks in Schools (2005)

Availability of Textbooks in Schools (2005)

School 1 (urban GPS): The first installment of books arrived at the end of December and the rest by the end of January. Classes started from the beginning of February.

School 2 (urban RNGPS): Nearly 75 percent of the books had arrived by the end of December and the rest by late January. Classes started in late January.

School 3 (rural GPS): In the rural GPS, 60 percent books arrived in January, 30 percent by March, and about 3 percent was yet to receive them. Classes started from mid-February.

School 4 (rural RNGPS): Two-thirds of all books had arrived by the end of January. The rest arrived by mid-February. Classes started from the beginning of February.

School 5 (BRAC): By the beginning of January 2005, all textbooks for Grade I, II and III had arrived. NCTB textbooks arrived by the end of January. Classes started in late January.

School 6 (BRAC): All textbooks for the first three grades had arrived by the beginning of

January. NCTB textbooks arrived by the end of January. Classes started in late January.

(Textbooks prepared by BRAC are used for the first three grades and NCTB prepared textbooks are used for remaining two)

When GPS and RNGPS teachers were asked how they and students cope without textbooks, teachers said that when there were not enough books for each student, children were asked to share books with one other. Teachers of rural GPS however, stated that they could not complete syllabi due to late supply of textbooks. About 22 percent students of rural GPS school reported that they could not attend school from the beginning of the academic year because of non availability of textbooks.

Guardians and students of GPS schools also reported that each student had to pay US \$ 0.50 for textbooks and US \$ 0.20 for other supplies including pencils, copybooks, in 2004 although these were supposed to be provided free of costs. Students of urban GPS schools were also charged exam fees, US \$ 0.10. Education in GPS and BRAC schools is free. No students or parents of BRAC school reported of being charged for textbooks and other supplies.

C) Financial Resources

The government has consistently allocated more than 46 per cent of its education budget to primary education since 1991 to cover all expenses of GPS and partial expenses of RNGPS schools. Government allocation of financial resources in the year 2003 is shown in Table 6.

Table 6: Allocation of Financial Resources (2003)

Revenue Expenditure		Development Expenditure	
Item	% of expenditure	Item	% of expenditure
Teacher/staff	95.7	Physical facilities	88-92 (inclusive of furniture and fixtures)
Teacher training	0.2	Teacher training	0.7-1.2
Textbook distribution	0.4	Textbook supply	4.3- 5.1
Administrative overhead	3.6	Administrative overhead	1.2-2.2

Source: Directorate of Primary Education/GOB

The conditions of physical facilities in GPS schools were poor despite government allocation of 88-92 percent of national development budget for the development of physical facilities in 2003. The head teachers of GPS and RNGPS schools stated in interviews that schools had very little government funds available to be used at their discretion. They also mentioned about the long waiting period to get funds from the central authority for repair of school buildings and furniture. The head teachers of these

schools and SMC members of RNGPS school commented on the performance of Local Government Engineering Department (LGED) which handles construction and repair jobs, as highly unsatisfactory, characterized by waste and corruption.

The head teacher of urban GPS stated that the school maintained a fund with community support to meet "urgent needs" of the school, which included, offering hospitality to important visitors and arranging annual sports or cultural events. Parents of children of urban GPS however, reported that the school charged students fees on various occasions. The rural GPS had no disposable financial resources of its own.

The urban RNGPS school raised funds mainly through earnings from small entrepreneurial activities and community support. These initiatives, said the head teacher in interview, contributed to keeping the direct cost of education low for students. The urban RNGPS leased a fishpond and constructed a shop on school land to meet "urgent needs" of the school such as, payment of electricity bill, providing salary to volunteer teachers, and small repairs. The head teacher of the school said in interviews that the rural RNGPS had a fruit garden as its source of income in addition to community support for repair and maintenance, and furniture.

Budgetary allocations and expenditures for BRAC schools were controlled from the central level. BRAC allocated almost 38 percent of its budget for school supervision in 2003.

Variable Two: Curriculum Design and Modes of Delivery of Lessons

Questions:

- a) How well are relevant practical skills covered in the curriculum?
- b) Do school textbooks reflect gender needs and perspectives?
- c) To what extent is the mode of delivery of lessons student centered?
- d) How is students' progress in learning assessed?

A) Curriculum

The curriculum to be followed in primary schools is set by the government. According to government rules (DPE/GOB), the primary school curriculum for Grade I and II included Bengali, Mathematics, Social Science, Physical Education, Arts, Music, and Religion. In addition to these subjects, English is added as a second language from Grade III. In BRAC schools however, textbooks prepared by BRAC are used for the first three grades and NCTB prepared textbooks are used for remaining two.

The outer covers of text books published by the NCTB (public agency) were attractive, but the quality of print and illustrations inside were poor. While the books were generally informative, not all were necessarily interesting. The Science and Social Science books for example, had some useful lessons on health and hygiene. Health and hygiene issues were also included in the English texts. There were lessons on pure water, proper eating habits, ideas about correct tube-well installation, and lessons on waste disposal. Some elements of population education and agricultural contents had been included in

textbooks of Grades IV and V. The Bengali books included tales and poems, and stories of famous people although, again, these are not uniformly interesting. The arithmetic books could be favorably compared with standard arithmetic books in any country.

B) Textbooks and Gender Needs and Perspectives

Compared to male authors, the number of female authors involved in writing textbooks books was less, only 24 percent of the total. In illustrations or drawings, depictions of women appeared far less than men. Where human virtues or accomplishments in specific fields were recorded, almost all people selected such as, scientists, social workers, statesmen, and war heroes, were men (over 90 percent). Stories or poems with female characterization were very few, accounting for less than 10 percent. Even in writings on folk art and handicrafts, where women's participation was traditional and noteworthy, and in articles on cooperatives where women in recent times had proved their worth, women were infrequently mentioned. Group participation and community self-help efforts were rarely presented, accounting for 10 percent. Terms like chairman, fireman, and salesman used in books might give students an inaccurate view of the world. The course content and course design in schools hardly reflected the realities of rural women's life.

BOX 2: Examples of Negligence of Gender Interests:

Examples of Negligence of Gender Interests:

1. The English primer for Grade IV (published by NCTB) presented the life of one Mr. Ali, a farmer who lived with his two small children in a village in Bangladesh. The text and illustrations showed this happy family, purported to be an average family, devoid of any stresses and strains that in reality such a family would be prone to in the daily struggle for survival. Such a rose-tinted depiction of rural life would little likely to stimulate any interest in a rural girl.

2. The BRAC Social Science textbook for Grade II projected the picture of men in every sphere of social activity except portraying the curse of having a big family, where a picture of a woman was shown surrounded by a number of malnourished children. In another picture, a woman was shown sweeping the courtyard, which might imply that the responsibility of maintaining the house neat and clean rested with females only.

C) Modes of Delivery of Lessons

i) Instruction Hours

Among the six schools, the GPS and the rural RNGPS schools were double shift schools while the urban RNGPS and BRAC schools were single shift schools. The government

has specified a uniform daily class timetable or "routine" to be followed in all GPS and RNGPS schools. Class schedule and academic program for double-shift school as established by the government is shown in Table 7.

Table 7: Double-shift School Weekly Class Schedule and Academic Program

	Sat	Sun	Mon	Tues	Wed	Thurs
First Shift (30 minute classes for pre-primary, Grades I and II)						
1 st Period 9.30- 10.00	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
2 nd Period 10.00- 10.30	Math	Math	Math	Math	Math	Math
3 rd Period 11.00- 11.30	Social Science	Social Science	Social Science	Social Science	Hand Writing	Rhyme & Story
4 th Period 11.30- 12.00	Religious Studies	Religious Studies	Fine Arts	Fine Arts	Sports/ Physical Exercise	Health Education
School Assembly	National Anthem	National Anthem	National Anthem	National Anthem	National Anthem	National Anthem

12.00- 12.15 *						
Second Shift (35 minute classes for Grades III, IV, and V)						
1st Period 12.15- 12.50	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
2 nd Period 12.50- 1.25	Math	Math	Math	Math	Math	Math
3 rd Period 1.25-2.00	English	English	English	English	English	English
Break 2.00-2.30	Tiffin	Tiffin	Tiffin	Tiffin	Tiffin	Tiffin
4 th Period 2.30-3.05	Social Science	Social Science	Social Science	General Science	General Science	Early Closing
5 th Period 3.05-3.40	Religious Studies	Religious Studies	Rhyme/ Story	Essay	Essay	Early Closing
6 th Period 3.40-4.15	Writing	Fine Arts	Fine Arts	Physical Exercise	Health Education	Early Closing

Note: Schools operate Thursday-Saturday and are closed on Friday.

* Both shifts attend School Assembly

Source: Directorate of Primary Education, GOB

Class schedule and academic program for single-shift school as established by the government is shown below in Table 8.

Table 8: Single-Shift School Weekly Class Schedule and Academic Program

		Sat	Sun	Mon	Tues	Wed	Thurs
Assembly 9.30-9.50	All Grades	National Anthem	National Anthem	National Anthem	National Anthem	National Anthem	National Anthem
1st Period 9.50-10.45	1	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
	2	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
	3	English	English	English	English	English	English
	4	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
	5	Math	Math	Math	Math	Math	Math (9.50- 10.35)
2 nd Period 10.45- 11.35	1	Math	Math	Math	Math	Math	Math
	2	Math	Math	Math	Math	Math	Math
	3	Math	Math	Math	Math	Math	Math
	4	English	English	English	English	English	English
	5	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali

							(10.35-11.15)
3 rd Period	1	Bengali	Bengali	Bengali	Bengali	Bengali	Bengali
11.35-	2	Soc. Sc	Soc. Sc				
12.25	3	English	English	English	English	English	English
	4	Math	Math	Math	Math	Math	Math
	5	English	English	English	English	English	English
							(11.15-11.55)
4 th Period	1	Religion	Religion	Art	Art	Phys. Edu	Writing
12.25-	2	Religion	Religion	Art	Art	Phys. Edu	Writing
1.15	3	Soc. Sci	Soc. Sci	Soc. Sci	Gen. Sci.	Gen. Sci	Gen. Sci
	4	Soc. Sci	Soc. Sci	Soc. Sci	Gen. Sci	Gen. Sci	Gen. Sci
	5	Soc. Sci	Soc. Sci	Soc. Sci	Gen. Sci	Gen. Sci	Gen. Sci
							(11.55-12.30)
Dismissed		Grades 1 & 2	All Grades				
Break	Grades	Tiffin	Tiffin	Tiffin	Tiffin	Tiffin	Tiffin
1.15-1.45	3-5						
5 th Period	3	Gen. Sci.	Gen. Sci.	Gen. Sci	Soc. Sci	Soc. Sci	Soc. Sci
1.45-2.25	4	Gen. Sci	Gen. Sci	Gen. Sci	Soc. Sci	Soc. Sci	Soc. Sci
	5	Gen. Sci	Gen. Sci	Gen. Sci	Soc. Sci	Soc. Sci	Soc. Sci

							(1.00-1.35)
6 th Period 2.25-3.05	3	Hand Writing	Bengali Dictation	Art	English Dictation	Music	Hand Writing
	4	Bengali Dictation	Bengali Dictation	Art	English Dictation	Music	Hand Writing
	5	Letter Writing	Bengali Dictation	Art	English Dictation	Music	Hand Writing (1.35-2.10)
7 th Period 3.05-3.40	3	Bengali Dictation	Hand Writing	Letter Writing	Bengali Sentence	Recitation	No Class (Admin.
	4	English Dictation	Bengali Essay	Letter Writing	English Essay	Story Telling	Tasks, Staff
	5	Bengali Hand Writing	English Sentence Making	English Sentence Making	English Essay	Debate	Meeting) (2.10-2.30)
8 th Period 3.40-4-15	3	Religion	Religion	Religion	Art	Test	Early
	4	Religion	Religion	Religion	Art	Test	Closing
	5	Religion	Religion	Religion	Art	Test	(2.30)

Note: Schools operate Thursday-Saturday and are closed on Friday.

In practice, the government specified routine was not followed in GPS and RNGPS schools. It was learned from classroom observations and interviews with students of rural GPS and RNGPS schools that children never had music lessons and physical education was rare. Music, and Arts and Crafts classes were not held regularly in GPS and RNGPS schools. Arts and Crafts classes were held in BRAC schools regularly. GPS and RNGPS did not arrange co-curricular activities though there was a period in the weekly class routine for this purpose.

The lower grade students are expected to concentrate on learning tasks for 2.5 hours in double-shift schools and 3.5 hours in single-shift schools, with no play or recess breaks. One 30-minute Tiffin break for both grades III through IV students and teachers is scheduled per day for both double- and single-shift schools. There are no breaks included in the school day for grades I and II students. The urban RNGPS (single-shift school) teachers stated in interviews that the school day was too long for grades III through V students at six hours and 45 minutes, and that the single break was not sufficient for teachers and students alike. The single shift was considered particularly onerous for students who may not have eaten breakfast and whose families could not provide them with Tiffin. Above 70 percent of GPS and RNGPS school teachers interviewed, indicated that the instructional hours were too long for students and teachers alike to use effectively, and that more breaks were needed.

ii) Contact Hours

Lower grade students in double-shift schools are expected to spend approximately 16 hours, 30 minutes at school per week compared with the 22 hours, 30 minutes per week expected of their peers in single-shift schools. Similarly, upper grade students in double-shift schools are expected to spend 23 hours, 30 minutes per week, while their single-shift counterparts are expected to spend 38 hours, 25 minutes. On average, grades one and two students in single-shift schools are provided 37 percent more contact time than students in double shifts. The gap widens in the upper grades: grades three through five students in single-shift schools are provided 63 percent more contact time than those in double-shift schools. It appeared that the number of contact hours prescribed per week by the Government (18 hours for grades one and two, and 26 hours for grades three through five) could not be achieved in the double-shift schools given their official operating hours. Over the course of a year, a significant deficit of contact time accrues for double-shift students.

Estimated contact hours for double-shift schools fell far short of the contact hours estimated for 2004, with contact hours for grades one and two at best totaling 419 (out of 654 hours) and contact hours for grades three to five at best totaling 729 (out of 932 hours). Not only does this result in major disparities in contact hours between single- and double-shift schools, but the contact time offered by double-shift schools does not meet the specifications for contact hours needed to cover the curriculum as prescribed by the government. Each week, grades one and two students in double-shift schools fall short by 1.5 contact hours (eight percent of required weekly time) and grades three through five

students fall short by 2.5 contact hours (about ten percent of required weekly time).

School day schedule is shown in Table 9.

Table 9: School Day Schedule

Saturday- Wednesday	Thursday	Contact Hours/Day	Contact Hours/Week	Contact Hours/Year*
Single-shift School				
Grades 1-2	9:30am – 1:15pm	9:30am – 1:15pm	3h 45m	22h 30m 893 hours
Grades 3-5	9:30am – 4:15pm	9:30am – 2:10pm	6h 45m (4h 40 on Thursday)	38h 25m 1527 hours
Double-shift School				
Grades 1-2	9:30am – 12:15pm	9:30am- 12:15pm	2h 45m	16h 30m hours
Grades 3-5	12:00pm - 4:15pm	12:00pm – 2:30pm	4h 15m (2h 30m on Thursday)	23h 30m 932 hours

BRAC had flexible school hours. Class time for grade I and II in BRAC schools was allocated in the following segments: Bengali (30 minutes reading and 30 minutes writing), Mathematics (35 minutes), Social Studies (35 minutes), and two-25 minute co-curricular activities, which included Physical Exercise and Singing. Class time for grade III, VI and V was allocated in the following segments: Bengali (35 minutes), Mathematics (35 minutes), Social Studies (35 minutes), English (30 minutes), General Science (35 minutes), Religious Studies (20 minutes) and two-25 minute co-curricular activities, which included Physical Exercise, Music, and Arts and Crafts. Usually the centers started with physical exercise and recitation of the national anthem. Arts and Crafts classes were held regularly in BRAC schools.

iii) Instruction Methods

Guidance is provided to teachers by the DPE/GOB on how to organize and manage individual class sessions. For example, the teacher should open a Bangla lesson with a “rapport building and concentration” session (e.g. a recitation, a story, or song), followed by an illustrative presentation (e.g. visual picture) of what the students should do. The main presentation should be a lecture by the teacher, who should then ask students to read aloud and silently. The period should conclude with short review questions asked by the teacher, and students should be assigned homework.

Instruction methods basically remained teacher-centered in all schools. Lecturing and reading out from the textbooks with occasional explanations were the dominant methods. One activity found in GPS and RNGPS schools was letting students engage themselves in

exercises assigned by teachers or copying questions and answers written by teachers on the blackboard. It was found from classroom observation that on one occasion, the Social Science teacher of urban GPS came in class (grade II) without his (teacher's) textbook copy. He borrowed a student's book, placing the student at a disadvantage.

On average, only 20 percent teachers of GPS and RNGPS asked reflective or thought-provoking questions where the children needed to apply their thinking process to find answers. Questions posed by the teachers were not always clear and specific. Children were not involved in any creative or innovative activities like project work or group work in any of these schools. Nearly 30 percent GPS school teachers did not assign any task (individual or group) to children. It was found from classroom observations that among the 22 percent teachers who gave individual tasks, only 8 percent of them moved around and monitored students' performance.

It was observed that about 60 percent students of rural GPS would gossip during individual assignments, while a classmate was solving a problem at the chalkboard or the teacher was working with another student. A high degree of chaos was allowed to reign in this particular school with children running in and out of classrooms at will.

Teacher Use of Class Time is shown in Table 10.

Table 10: Teacher Use of Class Time (percentage)

Percent of class time allocated to:	Average percent			Range of percents			Percent of observations > 50 percent		
	Total	urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Instruction, o/w percentage is:	63	72	56	25- 100	54-86	25- 100	75 (9/12)	100 (5/5)	57 (4/7)
• Proactive	83	73	90	40- 100	50- 100	40- 100	83 (10/12)	80 (4/12)	50 (6/7)
• Interactive	17	27	10	0-60	0-50	0-11	8 (1/12)	0	14 (1/7)
Non-instruction o/w percentage is:	37	28	44	14- 75	14-46	0-75	17 (2/12)	0	29 (2/7)
• Class administra tion	60	81	45	25- 100	38- 100	25- 100	58 (7/12)	40 (2/12)	57 (4/7)
• Discipline	15	13	17	0-50	0-33	0-50	0	0	0
• Idle	1	0	2	0-11	0	0-11	0	0	0
• Absent	16	6	23	0-68	0-31	0-68	17 (2/12)	0	29 (2/7)

N=10 class observations

The differences between urban and rural GPS and RNGPS schools in the use of class time were notable. On average, teachers in rural schools in the classes observed, spent 56 percent of class time on instruction, while teachers in urban schools spent 72 percent of class time on instruction. In urban classes, the non-instructional time (on average, 28 percent of teacher time) was primarily devoted to taking roll calls and maintaining class discipline. In rural classes, the non-instructional time (44 percent) was mainly spent on class administration (45 percent), discipline (17 percent), and leaving the classroom (23 percent), the latter generally for “administrative purposes.”

Learning could be facilitated and reinforced by drawing examples from the life experiences of pupils or by relating lessons to every day life. In rural RNGPS, while teaching about the uses of water, teachers simply read from the textbooks and did not pose questions to which the children could relate. For example, questions such as “What do you do with water?” or “What do we do when a paddy field becomes dry?” would have made the students think of the lesson in terms of their own lives.

In BRAC schools, a lecture method was primarily used to teach the students. However, group works, peer learning, question-answer sessions, demonstrations, were also evident. Students appeared quite disciplined in these schools.

A Science Class in a BRAC School

In a science class of grade V the teacher was teaching about plants. She started the class by asking the students some general questions relevant to the topic. The students replied

spontaneously – the boys were more responsive than the girls. However, the teacher noticed this and invited some girls to respond to her questions. She also showed various types of real plants to the students, although none of these plants were new to them. Then the teacher asked the students to open their textbooks and read out the chapter one by one. She often stopped the students to discuss the issue. She also tried to involve the students of both sexes equally. After that activity was complete, the teacher divided the learners into five groups and asked them to read from the textbook. At this stage the teacher was asked about the grouping system. The teacher said, “I am trying to distribute both strong and weaker students in each group.” It was observed that the strong students did help the slower learners. The teacher moved from one group to another. The students identified some difficult words and the teacher explained those. Later the teacher asked questions to the students to assess whether or not they understood and have learned about the plant. Some students could not reply correctly. The teacher discussed the topic again. The teacher advised the learners to read this chapter again at home and told them she would ask these questions again the next day. The period lasted one hour and five minutes.

BRAC teachers succeeded in holding students’ attention almost throughout the class. Teachers were found to motivate learners by thanking, clapping or praising a students' answer or performance in front of the class. BRAC teachers routinely rearranged seating of students.

iv) Content Validity

Mispronunciation was a common feature among teachers of all schools. About 10 percent GPS teachers gave wrong information and/or wrong ideas about contents of lessons.

Nearly 10 percent of GPS and RNGPS asked non-specific or vague questions pointing to individuals or to the class. These were most evident in rural GPS and RNGPS schools. A teacher of urban GPS was found teaching Grade III students that, “The solar system is a planet.”

v) Use of Teaching Aids

Discussions with students revealed that they enjoyed classes where teaching aids, such as story telling, pictures and posters were used. About 20 percent teachers of GPS and RNGPS schools explained topics using educational aids such as, blackboards, charts, and posters. It was learned from DPE/GOB that the teaching aids provided by the government include, blackboards, dusters, chalks, charts, abacus, compasses, thermometers, bar magnets, weighing scales, globes, clay models, geometry boxes, maps, alphabet cards, clocks and pictures of renowned personalities. Except chalks, blackboards, maps, and posters, none of the others were found in classes observed in GPS and RNGPS schools. The head-teacher of rural GPS who lived closed to the school, said that he stored teaching aids at home and brought them when needed. On average, chalkboard writings of 10 percent teachers of all types of schools were either illegible or not clearly visible from the back bench. The BRAC schools had fewer aids such as, chalks, blackboards, dusters, maps, charts, and posters. About 60 percent teachers used these to explain lessons.

vi) Lesson Plan

The use of lesson plan was found in urban RNGPS and BRAC schools. BRAC teachers said that they prepared lesson plans everyday. The head-teacher of the urban RNGPS said in interview that he regularly took school work home, worked on records, prepared lessons, and marked homework in the evening after he had completed his family duties. Teachers of GPS in FGD stated that it was not feasible to prepare six to nine different lesson plans per day: the school day did not permit the time and it was “unreasonable” to expect teachers to plan lessons on their own time (at home). About 80 percent teachers of GPS and 56 percent of those of RNGPS admitted that they attended schools without any preparation.

v) Special Coaching

Both GPS and RNGPS made arrangements for teaching the students who had been selected to appear in scholarship examinations at the end of grade V. This was because students’ performance in these examinations was one of the two achievement indicators for school evaluations by the education officials (AUPEOs), the other indicator being promotion rates in grades III to V. Schools also had their own motivations. In addition to the prestige and reputation as a “good school” garnered by boasting scholarship recipients, government primary schools participating in the primary education stipend program (PESP) must ensure that at least ten percent of their grade five students sit for the exam if the school is to continue participation in the program. Scholarship examinees were identified from the learners of grade V through a rigorous assessment at the beginning of the academic year and separated from other students for special coaching. From interviewing head teachers of GPS and RNGPS schools, it was learned that

experienced teachers were usually involved in teaching these learners. These classes generally took place during the school day (in the morning), with one teacher assigned to the coaching class. There was a decided asymmetry in the distribution of learning resources. In the urban GPS, eight students selected for the scholarship examination occupied one classroom, while 70 students of grade three occupied another classroom of the same size. A monthly fee of US \$ 4.8 from the coaching class candidates was taken by urban GPS and RNGPS.

Apart from arranging coaching classes for scholarship examinees, no measures were taken for the average grade five students. When asked about why schools could hold a coaching class for exceptional students and not a remedial class for struggling ones, one urban GPS school teacher explained that the coaching class was required by the government (it is not). Another teacher of the same school stated that if parents request that their child participate in the coaching class, they are allowed to attend but would be dropped if they could not “carry the load.”

Special coaching was arranged for students with learning difficulties in the urban RNGPS schools. In the urban RNGPS, the students with learning difficulties of each grade were divided into three subgroups. Two volunteer teachers taught these students for 1-2 hours after school for three days a week. The head teacher said in interview that the purpose of special tutoring was to help students understand those things that they were unable to learn during regular class hours. Students did homework in these classes.

GPS teachers stated in FGD that in order to do justice to course syllabi, some home teaching was required. BRAC teachers on the other hand, said in interviews that they had no difficulty teaching 30-33 students. They favored effective classroom teaching than relying on private tutors. They suggested that timely evaluations might help the teacher identify children who understood the lesson and those who did not, thereby allowing greater possibilities for remedial teaching.

When asked how they dealt with a school schedule and contact time that was often infringed on by unexpected events (e.g. disaster days, unexpected official events, and teacher absences), GPS school teachers in FGD stated that they did not schedule make-up or remedial classes, but “manage to cover two lessons in one class” by going over the material faster so as not to fall behind the academic program.

vi) Scholarship Examinations

During the period 1999-2003, 1 student on average, from urban GPS and RNGPS schools received national scholarships each year. On the other hand, only 2 students of rural RNGPS received scholarships during this period and none from rural GPS. During the period 1999-2003, a total of twenty students from both types of schools received national scholarships. Of them four were girls and three belonged to urban RNGPS.

D) Assessment of Students

Continuous assessment of student learning through quiz tests was found only in BRAC schools. The BRAC Program Organizers (POs), who monitored classroom learning, did random assessments of learning of students through asking questions and written quizzes.

i) Homework Assignments

All teachers of GPS and RNGPS schools assigned home tasks. Home tasks included working out sums, memorizing poems, writing essays, and writing short answers to questions in different subjects. Based on classroom observation, Grade V homework assignments seemed substantial in both urban and rural areas. The reason for this as stated by head teachers and teachers was because of the impending examinations (annual examination for passing grade five and the national scholarship examination). On average, about 60 percent and 42 percent teachers of GPS and RNGPS schools respectively did not check the home tasks or discussed mistakes on the previous day’s homework with the children. Examination of children’s home task copybooks revealed that about 20 percent GPS and 16 percent RNGPS teachers signed the exercise books without correcting them. About 43 percent children of GPS and RNGPS schools could not complete homework. Reasons for not completing homework are presented in Table 11.

Table 11: Reasons for not completing homework

	Assignments too much to	Could not follow	Non-availability of	Lack of textbooks/	Poor health and
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	complete (Student %)	instructions (Student %)	assistance from home (Student %)	pencils and paper (Student %)	illness of students (Student %)
Sch. 1 Urban GPS	68.4	64	47.2	2.2	2.0
Sch. 2 Urban RNGPS	61	53	44	00	1.4
Sch. 3 Rural GPS	76	72.2	59	10.1	4.3
Sch. 4 Rural RNGPS	69	53.3	42	3.0	4.0

Homework assignments were given regularly, especially for mathematics and handwriting in BRAC schools. Teachers said in interviews that considering parents educational status, no new work was provided for home learning. Pupils were only asked to redo work at home that they had already done in the classrooms. In order to repeat the lessons that were taught in the usual class time and do the homework, a small group of five to six learners sat together at a convenient place for peer group learning after school

hours. The respective teacher often visited them and provided help as needed. Weaker students had an opportunity to learn from the good students in these sessions. Teachers regularly checked home tasks and provided feedback to students.

ii) **Annual Examination**

Students' academic progress is mainly assessed in GPS and RNGPS schools on the basis of annual examinations held at the end of the academic year, usually in November or December. The promotion of learners to the next grade was determined by pass/fail at the annual examinations. The 2004 annual examination results of GPS, RNGPS, and BRAC schools showed that there were significant differences in learning achievements of students in Grades II, III IV, and V among schools. Average annual examination pass rates of students in these Grades in urban GPS and RNGPS schools were above 70 percent, while those of rural RNGPS, 62 percent, and of rural GPS, below 60 percent. The repetition rates were lower in urban schools than those in rural areas. The average pass rates in these grades in BRAC schools were above 80 percent, the highest among all.

On average, about 10 percent of the students of GPS and RNGPS schools kept themselves absent from annual examinations. From GPS teachers FGD, it appeared that GPS followed a flexible assessment system for the students of grades I and II. For grades III to V, written examinations were held. It was learned from interviewing students and parents that teachers of rural GPS often indicate answers to the pupils in the name of explaining the questions. Students were also given chances to copy from one another and those who were unable to answer a single question, just copy the questions in the answer

papers. The students who copied only the questions in the answer papers were given some scores. Students getting scores much below the pass marks were also given additional "grace" scores to allow them to move to the next grade. Such unfair assessment increased the promotion rates in this school. The parents said that the upazila officials were fully aware of these, but they were not willing or able to take any action against the school.

Variable Three: Teacher Inputs

Questions:

- a) What educational qualification and training do teachers have?
- b) Do teachers fulfill their responsibilities and duties? Do they come to school regularly?
- c) What professional career support is available to female teachers?

A) Education and Training

The government requirements regarding education background for primary school teachers are Higher Secondary Certificate (HSC) for male and Secondary School Certificate (SSC) for female. GPS and RNGPS school teachers, once employed, can join the 10-month Certificate in Education (C-in-Ed) training course. Education, Training, Experience of Teachers by School Type are shown in Table 12.

Table 12: Education, Training, Experience of Teachers by School Type

School Type	Total No. of Teachers	Average Years Working at Sample Schools	Education % of Teachers Passed S.S.C. H.S.C. & above	% of teachers having 10 10+ years of experience	Type of Training
GPS	13	11.0	*1 54 *2 46	35 65	Certificate-in-Education (C-in Ed), Bi-Monthly Sub-Cluster Training
RNGPS	17	10.8	80 20	30 70	(C in Ed), Bi-Monthly Sub-Cluster Training
BRAC	5	7.4	100 0	100 0	12 days Initial Training, 1-2 day Monthly Refresher Training

* 1 Secondary School Certificate (S.S.C.)

* 2 Higher Secondary School Certificate (H.S.C.)

B) Teacher Duties and Responsibilities

GPS and RNGPS teachers had to fulfill non instruction related government duties in addition to teaching, attending SMC and staff meetings, training, and planning for sports celebrations. GPS teachers, being direct government employees, were called upon for extra-school duties more frequently than those of RNGPS. Over 90 percent GPS and 64 percent of RNGPS school teachers undertook some official duties while the schools were in session during the year 2004.

The non instruction related government duties include:

i) Student Registration

GPS and RNGPS teachers are tasked with administrative duties such as registering students. Throughout January, teachers are expected to recruit students by making visits to homes, markets, and other public places to meet parents. Often teachers are expected to organize and attend community and cultural events in order to create awareness for parents and attract students to schools. They must also prepare registration records with proper documentation for each entering student. It was learned from interviewing GPS teachers and head teachers that recruitment and registration efforts continue beyond January and often till March.

About 70 percent parents of children attending GPS schools stated that they would send their children to schools in January and February, only to have them return home saying that the teachers were not there or were not holding classes. The teachers of these schools admitted that January was a chaotic month and if any classes were conducted, it was generally on a sporadic basis.

ii) Textbook Management

The government's policy of providing textbooks to students in GPS and RNGPS schools necessitates that teachers document textbook requirements, collect old textbooks from former grade III through V students, and gather and distribute new textbooks. Textbook management takes teachers' time away from instructional duties, particularly in January.

iii) Home Visits of Students

According to government requirements, teachers are expected to make regular visits to children's homes, both to check on absentee students (generally having missed three consecutive days) and to encourage school enrollment during the first three months of the school year. Government education officers in interviews reported that five households per month per teacher was the requisite number.

iv) Other Duties

GPS and RNGPS school teachers are also required to perform government duties, such as voter registration, election duties, health and immunization campaigns, organization of rallies for example, Meena rallies for promoting girls' education. In addition to

teaching, they also have school related duties which include, attending SMC and staff meetings, conducting coaching classes, and planning for sports celebrations.

Non-School-Related Duties by Teachers During the School Day in 2004 are shown in Table 13.

Table 13: Non-School-Related Duties by Teachers During the School Day in 2004

	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
Percent of Teachers Undertaking Non-School Duties Such As: N=22	92.80	100	92.30	91.7	90	50
Voter Registration	7.70	0	8.50	0	0	0
Elections	7.70	0	8.50	0	0	0
Vaccination	81.80	88.90	50	61.50	100	58.30
Meena Rally	38.50	0	41.70	18.20	22.20	0
Iodine Campaign	15.40	0	16.70	9.10	11.10	0
Vitamin Campaign	0	0	0	0	0	0
Total Average Days/Teacher	2.78	6	2.50	2.45	1.88	3

(N=22)

Nearly 66 percent of the teachers interviewed said that the duties they were expected to undertake as government employees, not related to their jobs as teachers, had a deleterious impact on their work as teachers. Of them, 46 percent reported that these non-school duties required an early departure from schools, although only nine percent said that these duties made them late for schools. Nearly half (45 percent) said that these duties resulted in absenteeism: either the teacher was required to miss the entire day of school (27 percent) or was too fatigued by the non-school activity to attend school and resume teaching activities the next day.

v) Teacher Training and Absenteeism

About 62 percent of GPS and 58 percent of RNGPS teachers participated in some form of training in 2004 and on average missed six days during the year. The bi-monthly sub-cluster training for teachers requires their presence at the Upazila Resource Center or some other central location one day every two months. Head-teacher of rural GPS mentioned that teacher participation in training activities had required him to close the school. This head-teacher estimated that he missed about 45 days of school because of his participation in training, although he claimed the school was open during his absence. Parents disagreed, saying that either the single teacher left in charge did not appear at the school or decided not to open it after he had completed his pre-school day coaching class for grade five students. The head-teacher did not apply for a temporary or substitute teacher to fill the deficit.

Table 13 shows that the teachers interviewed estimated they were absent from school, on average, for more than four days in a typical month because they were dealing with non-teaching duties (stipends, book collection, and salary collection) and/or were in training. Teachers in rural GPS school were absent nearly twice as many days, about one week per month. This school was more vulnerable to such demands because of a smaller number of teachers and the travel time to participate in activities. Discussion with head-teacher of rural GPS school revealed that the school was more likely to close rather than operate with fewer teachers. Training and other tasks (generally identified as non-school related official duties) account for most of the days absent. Teacher absenteeism was the highest in rural GPS school and the lowest in BRAC schools. Average days per month teachers estimate absence due to official duties is shown in Table 14.

Table 14: Average Days Per Month Teachers Estimate Absence Due to Official Duties

No. of days	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
School Duties	0.08	0.01	0	0.14	0	0.15
Training	2.75	2.80	2.50	1.32	1.00	1.35
Other	2.83	2.90	2.50	1.61	1.00	1.65
TOTAL	5.66	5.71	5.00	3.04	2.00	3.15

(N=22)

vi) Personal Reasons

Domestic tasks, special events, and income-generating activities also account for teacher absenteeism. Nearly 61 percent of GPS teachers said that they left school early because of domestic chores and income-generating activities. Distance to school was cited by 11 percent of teachers as was attendance at a special event. About 40 percent teachers reported that they earn extra money from other jobs. In rural schools 58 percent teachers were engaged in income-generating activities, while in urban schools, 21 percent. Absenteeism, late arrival and early departure of teachers were most evident in GPS schools.

vii) Teachers Recruitment and Posting

GPS school teachers were hired at the central level and posted in different localities. Teachers of GPS schools were generally reluctant to talk about the difficulties they had experienced during their recruitment. Four percent GPS teachers however, did admit in interviews that they had experienced problems due to favoritism and delays in appointment. They mentioned that a typical form of harassment was the long delay in the issuing of appointment letters by the field level government officials. Teachers said that they had to "pay" to obtain appointment letters without unnecessary delays. They also maintained that assessments were not being carried out impartially. At the point of oral examination at the district level, bribery, nepotism, political linkage and other influences determined who was selected, rather than merit.

RNGPS and BRAC school teachers, unlike those of GPS schools, were hired from among the local community. BRAC teachers were the residents of the villages where they taught. The teachers were hired on a temporary, part time basis. It was learned from interviewing parents that local leaders employed some of their relatives as teachers of rural RNGPS schools who were not qualified or experienced enough to be teachers. The GPS schools were understaffed. The urban GPS school had 9 teachers for 332 students and the rural GPS school had only 5 teachers (1 of them was on deputation) for 241 students. This school was more vulnerable to closing due to low attendance of teachers. The number of teachers in urban RNGPS school was 10. In addition, two volunteer teachers were appointed with the help of the community. There were 310 students in this school. Each BRAC learning center had 1 teacher for 32 students. It was learned from teacher FGD in urban GPS school that when a female teacher was absent for three months on maternity leave, class schedules were disrupted and other teachers had to take over in her absence. There was no 'pool' of teachers from which a replacement could be selected. Seventy percent GPS teachers in interviews stated the need for more teaching staff.

In RNGPS schools there were 8.5 teachers on average, and the total number of students was 460. The urban RNGPS had appointed two SSC degree holders as volunteer teachers from the community who were paid US \$ 4.00 per month from the school's own sources of income, such as, fishpond and rented shop. The head teacher stated that the need for volunteer teachers rose as the school was on a single shift and had to conduct 11 classes

at a time with only 10 teachers. The volunteer teachers were assigned to take the classes of grades I to II and coaching classes for children with learning difficulties.

Teachers of GPS schools said in interviews that the lack of administrative staff in schools contributed to shifting of non instruction related duties to teaching staff. Teachers stated that they would have more time to devote to the children, acknowledging that they used class-time for non-teaching tasks. The teachers of urban GPS school stated that there should be an administrative assistant who could assume responsibility for:

communicating with the School Management Committee; maintaining student records; taking and recording student attendance in the register; and ringing the class period bell; and making home visits to check up on absent students. Teachers not able to completely cover the curriculum in 2004 and the reasons are shown below in Table 15

Table 15: Teachers Not Able to Completely Cover the Curriculum in 2004 and the Reasons

	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
Percent of teachers not able to completely cover curriculum	25	50	20	7.1	0	7.7
Percent of teachers claiming that there is/are: N=11						

Not enough time	100	0	100	0	0	0
To many subjects	33.3	50	0	0	0	0
Not enough teachers	66.7	100	50	0	0	0

C) Career Development Prospects and Professional support

The head teachers and about seventy two percent teachers of GPS schools stated in interviews that they were underpaid in comparison with other government employees.

Teachers earned between US \$ 98.00 and \$ 120.00 per month, depending on their rank as untrained, trained, or head-teacher.

Three of the 4 head-teachers said that they supplemented their income by farming, as their salaries were not sufficient to meet family needs. The head-teacher of rural GPS estimated that his land produces about US \$ 90.00 per month, while he earned US \$ 150.00 per month as a senior teacher. About 68 percent GPS teachers were involved in income generating activities. A teacher of urban GPS school said that he used his 17 days of leave for farming. Only two female teachers of urban schools said that they earned extra money, one owned a small property that her family manages for farming, and another tutored students primarily before exams.

Teachers of GPS and RNGPS schools stated that the pay scale was discriminatory because there was no difference in the levels of qualifications, there was no career ladder beyond head-teacher, and there was no recognition or reward system for conscientious

work. The teachers also indicated that they were demoralized by the increasing amount of “red-tape,” administrative requirements, and demands on their time by non-teaching duties. Said the head-teacher of urban GPS school, “I would like to continue working in education, but if I had to do it again, I would work at the district education office, not the school.” “It’s hard to be a good teacher,” said one female teacher of the same school. She added that teachers were not accorded much respect by the government or educational authorities. She noted that “teachers are the builders of children” and they organize Meena rallies to promote girls’ education, educational authorities did not even ask a teacher to speak at the occasion. When asked whether they would choose to be a primary teacher if they could choose any other profession, 73 percent however, said that they would. Percentage Distribution of Teachers Not Satisfied with their Job is shown in Table 16.

Table 16: Percentage Distribution of Teachers Not Satisfied With Their Job

	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
Percentages of teachers who are not satisfied	45.7	43	48.5	46.7	48.0	23.3
Why not: N=7						
Salary is not satisfactory	90	90	85	57.1	50.0	60.0
Teaching is hard work	20.0	0	20.0	0	0	0

Everyone searching better opportunity	60.0	0	60.0	50.0	50.0	0
Faulty education system	0	0	0	50.0	50.0	0

Transportation and distance to schools appeared to be a significant problem in rural areas: only 25 percent of urban teachers mentioned it as a problem, compared to 37 percent of rural teachers. Only 33 percent of rural teachers lived in the school community, in contrast to the 53 percent of urban teachers who lived in their school community.

Travel time seemed primarily to be a concern of the male teachers interviewed because they predominated in the rural schools visited, and most lived in town or a fair distance from schools.

i) Preference of Female Teachers

The urban GPS school had 2 female teachers while the rural one had none. The urban RNGPS school had 3 and the rural one had 2 female teachers. The gender imbalance in teaching positions remained high particularly, in GPS schools despite affirmative government policies of recruiting 60 percent female and 40 percent male teachers. Both the BRAC teachers were females. It was learned from interviewing POs of BRAC schools that 90 percent teachers of BRAC schools were females. BRAC teachers must be married residents of the villages where the learning centers were located (to avoid losing personnel due to spousal transfers).

Female teachers of all schools were married and had children. Over 80 percent of female teachers of urban schools said that they preferred not to be placed in rural schools.

Female teachers of urban GPS school stated in FGD about the problems they experienced when they were not posted in distant rural areas, such as: 1) problem of accommodation or financial cost of establishing a second household in the rural areas; 2) difficulties in fulfilling family/domestic obligations (husbands working in urban areas); 3) problems in meeting children's educational needs; 4) personal safety/ security problems in unfamiliar localities and 5) problem of transportation. A teacher of urban GPS school stated that she was asked to pay US \$ 270.00 by a public education official for transfer to a school near to her husband's work. She refused to pay the money as being unable to raise such a large sum, so her transfer was delayed. Later, she managed to obtain her transfer through exchanging with a teacher at another school.

About 85 percent guardians in the rural areas stated in interviews that they preferred female teachers to teach female children. Mothers of children attending urban RNGPS stated that the presence of female teachers in school encouraged them to come to school to check on their children's progress.

ii) Teacher Training

A variety of training programs are offered to GPS and RNGPS teachers, including 10 months training at Primary Teacher Training Institutes (PTIs), sub-cluster training conducted by AUPEOs, subject based training provided by the Upazila Resource Centers (URC) and ad hoc training provided through different development projects. After a

primary school teacher has been on the job for two or three years, he or she can apply for extended leave to participate in the 10-month Certificate-of-Education (C-in-ED) at the Primary Teacher Training Institute (PTI). The 10 months C-in-ED course was designed to train teachers on pedagogical aspects and subject teaching methods. The National Academy for Primary Education (NAPE), a government agency, had the responsibility of training the PTI instructors, officials of different levels and conducting PTI examinations and related research. Seventy percent of the instructors in PTI had Masters in Education (M Ed.) but only about ten percent of them had practical experience of primary school teaching. PTI instructors said in interviews that they were overburdened with work load. On average, an instructor had to take 17 classes per week. There were only 54 (53 public and 1 private) PTIs in the country in 2004, for over 500,000 teachers. The private PTI had to follow compulsorily the curriculum and training programs of public PTIs.¹

It was learnt from interviewing GPS and RNGPS school teachers that two main initiatives for in-service training: sub-cluster training and URC subject-based training - were not working well. Lack of professional support in planning and designing the content and method, professional deficiency of AUPEOs who are the trainers and insufficient follow-up of the outcomes of training at the school level rendered the sub-cluster training into a monthly social gathering of teachers presided over by the AUPEO.

The following case based on a discussion with a female trainee at a PTI in Dhaka revealed some of the problems encountered by a trainee.

¹ The public PTIs have the capacity to train 10,000 trainees a year (Source: Directorate of Primary Education/GOB, 2004).

Naila Karim is a non-government in-service trainee in a public PTI. She teaches in a rural RNGPS. She is 20 years old and unmarried. She comes of a lower-middle class background from the same area where she teaches. She had completed S.S.C. Since no PTI is located close to her area, she has come to Dhaka city for training to enhance her career prospects. She is on study leave with pay from school (US \$ 21.00 per month) which partly covers her expenses. She makes up the difference from her family's resources. She finds conditions at the PTI hostel located in Dhaka city, far from congenial but is obliged to stay there since she cannot not afford to live outside. She shares a dormitory room with two other trainees. It is a small room, with bunk-beds. There are no facilities for drying clothes, which therefore must be done in her room. She pays US \$ 40.00 per month for food and accommodation. It is a struggle financially for her and her family to meet the costs of her training. She is dissatisfied with the training offered by the PTI. She feels that the lecture method is predominant in PTI classrooms and practical skills are not emphasized. She planned to go back to her job after finishing the course. She is keen to remain in her profession. Considering the financial and personal difficulties involved in following a ten-month training course, she is quite resilient and finds the idea of teaching attractive.

BRAC teachers, after they are selected, are given 12 days of teacher training in groups of 20-25. They are taught basic concepts of learning theory, together with training in English, Mathematics, Science and Social Studies by specialized trainers. After the teachers start teaching, they have to attend a one day refresher course each month, and a six day refresher course at the end of the first year. Teachers stated in interviews that they

found monthly refresher training courses useful for preparation of lesson plans. They also stated that discussions of strengths and weaknesses of teachers by the POs on the basis of their month long classroom observations helped them in teaching.

iii) The Bangladesh Primary Teachers Association

The Bangladesh Primary Teachers Association (BPTA), with national, district and local levels leaders is created under government initiatives to serve primary school teachers.

About sixty percent GPS and RNGPS teachers interviewed said that they are unaware of its functions or its role in their professional development. The President of BPTA however said in interview that the BPTA had been instrumental in bargaining for salaries and fringe benefits for primary teachers. He also said that BPTA succeeded in raising the monthly salaries of primary teachers and in obtaining a 20 percent reserve quota for the dependents of the teachers and in creating the post of Assistant Head Teacher.

The Welfare Trust of the BPTA was set up in 1984. To become a member of this Trust, teachers pay starting fee of US \$ 0.42, and annual subscription fee of US \$ 0.26. The President of BPTA claimed that US \$ 1110.00 was available annually for medical treatments, while a total of US \$ 191.00 was available for bonuses and prizes for primary teachers in 2004. Teachers of GPS schools stated that although they paid the annual subscriptions; they did not receive any response to their claims for medical treatments. A teacher of urban GPS school mentioned that he was aware that some of the members individually received several thousands of Taka worth of medical treatments from the national headquarters in Dhaka.

Variable Four: Parents and Community Involvement in School Affairs

Questions:

a) What are the areas where parents and communities intervene?

A) Parents and Community Involvement

The government regulations (DPE/GOB) require that each GPS and RNGPS school have a School Management Committee (SMC) and a Parents Teachers Association (PTA).

i) School Management Committee (SMC)

The eleven member School Management Committee (SMC) of the primary school is expected to ensure the effective functioning of the school and serve as the main vehicle for ensuring accountability of the school to parents and community. The SMC is to meet once a month.

The government has assigned a broad role to the SMC which included:

- School development work including, schoolhouse construction/repair;
- Monitoring and supervising school activities and performance;
- Ensuring that all children (6-12 years) enroll and attend;
- Helping manage sub-cluster training, PTA, stipends, and co-curricular activities;
- Coordinating and resolving different school-related problems by involving community people and upazila education office;

(Source: DPE/GOB)

In reality, SMCs had very little involvement in GPS schools. SMC monthly meetings were not held regularly in GPS schools. On average, female representation in 11 member SMCs in GPS and RNGPS schools was low, only 4. At a SMC monthly meeting in the urban GPS school, it was observed that 6 of the 11 members were present, and most of them came late. The vice chair presided over the meeting. It was learned that the chair was absent because of his involvement with the election of the local chamber of commerce, where he had been elected as chair of the forum. The agenda for the meeting included pupils' attendance, and their performance in the scholarship examination. The head teacher made a presentation on these issues while others took part in the discussion. The meeting decided to take the following actions: teachers would visit pupils' home to inquire about absences, and the number of school visits by the SMC members would be increased. It was learned from FGD with teachers that decisions taken at SMC meetings were hardly implemented. No kind of financial or material support for school was pledged by SMC members at the monthly meeting. The head teachers, teachers, SMC members of GPS schools did not report in interviews about SMCs providing such support to schools. From FGD with SMC members it appeared that they were ill-informed of the regulations governing school time and operations. SMC members expressed helplessness in dealing with teacher attendance issues.

Widespread dissatisfaction was expressed by GPS teachers about how SMCs functioned. The problem most frequently noted by parents and teachers was undue influence of head

teachers and local political people in the selection process. This influence, it was said, resulted in people who are uneducated and had no interest in education being selected as members of committees. Either the head teacher arranged to have his friends and relatives in the committee or the politicians saw the membership as a reward for their supporters.

The involvement of SMCs in RNGPS schools was higher than in the case of GPS schools. The SMCs of RNGPS schools were comprised of people with different backgrounds, including parents, social workers, and businessmen. It was learned from local people of the rural areas that SMC was regarded a prestigious committee due to which influential persons compete to become members. The SMC chairman of urban RNGPS school donated the land for the school and had a granddaughter enrolled. It was learned from interviewing the head teacher and teachers that the SMC chairman worked nearby, and he visited the school almost every week. It was also learned from the head teacher that the SMC chairman inquired about teacher and student attendance and made notes to discuss at the next SMC meeting. Often he visited classrooms and administered “quiz tests” on the lesson of the day. SMC monthly meetings were held regularly in this school. At a SMC monthly meeting in urban RNGPS school, it was observed that the head teachers’ presented reports that included information about students’ performance in examinations, needs for facilities maintenance, situation of teaching staffs, and issues surrounding the use of school uniforms. SMC members in FGD said that they provided electric fans, sports materials, furniture, financial help, and part time teachers in collaboration with local elites. It was learned from the head teacher of rural RNGPS school that SMC members of rural RNGPS provided financial support for minor

repairing of school houses and fencing school boundaries. When the SMC members of RNGPS schools were asked what measures were needed to improve the quality of education, nearly 82 percent mentioned about the need to create awareness among parents. Perceptions of SMC members are shown below in Table 17.

Table 17: Community Perceptions on Quality Agenda:

Area	Percentage of members who agree:
Creating awareness Among parents	82
Trained and efficient teachers	77.4
Regular and active SMC	66
Teachers with subject specialization	51
Life oriented and up-to date curriculum	69
Active role local govt. and local educational Administration	49
Adequate number of classrooms	54.4
Increasing teacher salaries	62

ii) Parents Teachers Association (PTA)

The government regulations required a nine member Parents Teachers Association (PTA) for school management, comprising of a president from among the parents, the head teacher as the member secretary, a teacher and three male and three female parents/guardians as members. PTA is to meet once every three months or so.

The PTA, as stated by DPE/GOB should have the following goals:

- Creating good relations among teachers and parents
- Improving quality of education by joint efforts
- Involving parents in all school activities
- Establishing accountability at the grassroots levels
- Evaluating roles and responsibilities of the parent-teacher society
- Encouraging problem solving at the local levels
- Forming a welfare trust in the school.

(Source: DPE/GOB)

PTA appeared a committee on paper. Parents teachers meetings were not held in any GPS and RNGPS school. It was learned from informal discussions with parents/guardians of children attending GPS and RNGPS schools that very few parents kept in touch with the schools on their own initiatives. The parents who came to schools, met the head teachers or some of the class teachers. They generally discussed about examination results and the strengths and weaknesses of their children. Parents said that such communications were fruitful for understanding their children's progress. None of the head teacher could give a clear answer about the role PTA play in school affairs. In urban GPS school however,

two “mothers’ rallies” were arranged by parents and school authorities in 2003 to motivate parents to support education. Parents in interviews at urban GPS school complained that the school made little effort to disseminate information about national scholarship examination results, school holidays, and absences of teachers.

iii) Parents and Community Involvement in BRAC schools

BRAC schools do not have school management committee. A seven-member parents committee exists for each center. It was learned from interviewing POs, that the parents of the learners of each center were eligible to become members of the committee. The committee members had the responsibility to monitor the following: teacher attendance and schools operate regularly and start and close on time. The POs said, since the parents were illiterates or had little education, their duties were not to observe the pedagogical aspects of the centers but to monitor these aspects. On the days of school visits, a member of parents committee was found present in school premises. Parents said in interviews that they lived within short distance from the centers, so it was easy for them to visit the centers. The parents teachers monthly meetings were held regularly in BRAC schools. The attendance registers showed that on average, 80 percent parents attended monthly meetings. About 72 percent were female guardians. At the monthly meetings, parents reported to the POs their observations of learning centers. Some social and public health issues were also discussed in these meetings. It was learned from POs that prior to the opening of a new school, parents and BRAC staff meet several times. Parents had to pledge to attend monthly meetings and send their children to schools each day. The learning centers were situated in rented houses; the POs said, without support from

parents and communities it was not possible for BRAC to rent these houses. The school hours were also fixed in consultation with parents. The school schedule allowed for a short vacation, determined jointly by parents and teachers.

Variable Five: School Monitoring and Evaluation Capabilities

Questions:

- a) Do classroom and school monitoring and supervision take place? What support to schools, teachers and head teachers does the external management and administrative structure (central, regional and local) provide to help in-school management? How performances of schools are assessed?
- b) To what extent schools are accountable to parents and society at large?

A) Monitoring and Supervision

i) Role of Head Teachers

All head teachers of GPS and RNGPS schools had been with their respective schools for 5-8 years, except the one of urban RNGPS who joined recently. Profiles of head teachers are presented below (Table 18)

Table 18: Profile of Head Teachers

	Sex	Education	Training	Recruitment	Years of Teaching Experience	Teaching No of Classes	Recipient of Award

School 1	M	Masters	C-in-ED, Two short training courses	Promoted from the rank of teacher on the basis of seniority	27	4	x
School 2	M	Masters	C-in-ED, Two short training Courses	Recruited directly	22	2	√
School 3	M	Bachelors	C-in-ED	Promoted from the rank of teacher on the basis of seniority	14	4	x
School 4	M	Bachelors	C-in-ED	Promoted from the rank of teacher on the basis of	8	2	x

				seniority			
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According to DPE/GOB, head teachers of GPS and RNGPS have responsibilities in four areas:

- 1) Day to day management of school, which included, assigning duties of teachers, monitoring attendance of teachers and students, basic record keeping and ordering supplies;

 - 2) Instructional Supervision, including, supervision of classroom teaching.

 - 3) School-Community relations, which included, working with School Management Committee (SMC) and Parents Teacher Association (PTA) and other local organizations which have interests in the school. The goal is to encourage community support for the school in areas such as, facilities construction and maintenance, teacher subsidies, and to encourage parents to ensure that their children do homework and attend school;

 - 4) School-Ministry communications, this is, completing reports required by the central ministry. Head teachers also share responsibility with district education officers for ensuring that ministry policies and programs are conveyed to teachers and parents;
- Among the four head teachers, the one of urban RNGPS appeared to be more involved in school activities. It was learned from FGD with teachers that this head teacher regularly observed classes and provided feedback. Special coaching to assist children with learning difficulties, recruitment of volunteer teachers, regular staff and SMC meetings – all these

were found in urban RNGPS school. The textbooks arrived in this school earlier and school year also began earlier among all GPS and RNGPS schools.

The head teacher of urban GPS school stated in interview that due to shortage of teachers, he had to take 5-6 classes a week, which took his time away from supervision. Weekly staff meetings were not held regularly in GPS schools, although the head teachers said that informal discussions took place with staff continuously.

The AUPEOs mentioned in interviews that about 65 percent of head teachers of GPS schools were promoted from the ranks of teachers on the basis of seniority; the remaining 35 percent were recruited directly. Seniority in order to be promoted as head teacher is determined on the basis of service length in teaching; the incumbent should also have at least seven years of experience, must have HSC for male and SSC for female, and with C-in-Ed. According to UEOs and AUPEOs, this policy led people to become head teachers who did not necessarily have the leadership quality. They also stated that a training manual on school management for head teachers was prepared by DPE. The head teachers of rural schools however, said that they were unaware about the existence of the manual.

ii) Role of Field Level Education Officials in School Monitoring and Supervision

GPS schools were supervised directly by the Upazila (Sub-District) Education Offices (UEO).² The Upazila Primary Education Officer (UPEOs) and Assistant Upazila Primary

² Each Upazila office consisted of one Upazila Primary Education Officer (UPEO) and six Assistant Primary Education Officers (AUPEOs). Number of schools in an Upazila ranges from 150-200.

Education Officers (AUPEOs) are the educational administrators most closely linked to GPS and RNGPS schools. The DPE/GOB has assigned wide ranging responsibilities to UPEOs, which included, school monitoring, processing teachers' salary bills, maintaining service records, initiating recommendations for appointment, promotion and transfer of primary school teachers, requesting funds for development purposes, and sending monthly reports on schools to the District Primary Education Office (DPEO) for necessary actions.

The main responsibilities of AUPEOs included: visiting and supervising each school at least once a month; submitting reports on the activities of head teachers; preparing annual confidential reports on head teachers and teachers; observing classroom teaching and providing feedback; arranging cluster training for teachers regularly; ensuring cleanliness of schools and infrastructure; discussions with SMC and PTA members to ensure teachers' attendance; ensuring regular meetings of SMCs and attending at least five SMC meetings a month; and maintaining contact with parents to ensure regular attendance of students.

It was learned from teachers and head teachers of the urban GPS and RNGPS schools that the AUPEOs visited these schools 4-5 times in the year 2004. These schools were located in close proximity to Upazila Education Offices. Their visits to rural schools were less. The rural RNGPS school was visited only once and the rural GPS went a year without a visit. The rural GPS school was the furthest from the upazila headquarters. On the days of school visits, it was observed that the urban schools started on time.

Attendance of students was also higher in these schools (above 56 percent) compared to their rural counterparts (below 52 percent).

Teachers of GPS and RNGPS schools mentioned in FGDs that they did not receive academic guidance from UPO. They said that the AUPEOs do not interact with the teachers or the students or monitor classroom learning. Teachers of rural GPS school reported that they did not get salary in a timely manner.

UPEOs and AUPEOs stated in interviews that the number of schools assigned to them for supervision was excessive. Each AUPEO was in charge of 15-20 GPS and RNGPS schools, which he/she was supposed to visit regularly in addition to distribution of textbooks, preparation of reports on schools and staffs, and organizing national immunization day program. The AUPEOs said that the school inspection forms included a lot of nonacademic issues. They had to spend almost the whole day to fill it with the help of teachers. The teachers could not conduct classes on the day of supervision, as they had to provide detailed information to AUPEOs. They also stated after filling in the forms there was not much school time left for classroom observation. The AUPEOs complained that most teachers did not care to study or make use of the teachers' guide that was distributed to schools by UEO.

The UPEOs said in interviews that they had little or no scope to be informed directly about the activities, and problems of the teachers, and hence the actual situation in schools. They stated that they sat with their AUPEOs periodically to be updated about

their school supervision, giving suggestions and directions to them on their roles and responsibilities. They stated however, that they could not take any action against AUPEOs' irregularities as some of them had protection of political patrons.

iii) School Evaluation (Grading System)

The Ministry of Primary and Mass Education (MPME) has set up a primary school grading system in order to assist supervision and evaluation of GPS and RNGPS schools. The schools are divided into four grades, from A to D, with A-graded schools being regarded as meeting acceptable standards. A ten-point criteria, with each item assigned a maximum score of ten was used for grading. The criteria of school grading are shown in the Box 3 below.

BOX 3: Criteria of Grading of GPS and RNGPS

Criteria of Grading of GPS and RNGPS

- Enrolment. (Teachers of GPS and RNGPS schools conduct child survey in the catchments area of the respective school to determine the number of primary school aged children. In evaluating a school, the percentage of children admitted in the school is considered.)
- Attendance rates
- Rates of dropout
- Effectiveness of SMCs
- Success rates in the scholarship examinations
- Attendance, punctuality and dutifulness of teachers
- Attractiveness and cleanliness of the school premises
- Number of PTA meetings
- Co-curricular activities
- Record keeping

Source: DPE/GOB

The urban GPS and RNGPS schools received Grade A, while their rural counterparts received Grade B in 2003. Discussion with a SMC member of rural GPS school revealed that AUPEOs do not necessarily visit the school but have the head teacher fill out the school inspection forms. AUPEOs said that reports on schools were seldom used to reward, penalize or improve schools. Only minor sanctions were applied in case of a

school with a D grade. Moreover, if a school wanted to improve its grade, the DPEO had the authority to investigate and improve the grade if applicable. Schools' grades are not made public.

iv) Supervision and Monitoring of BRAC Schools

In the case of BRAC schools, day to day management of the learning centers falls upon the teachers, while the Program Organizers (POs) have monitoring and supervisory roles. A group of program organizers (POs), each having responsibility of 12 to 14 schools, directly supervises the school activities. There are also regional and central level officials for implementation of the BRAC education program.

Major decisions regarding administration, pedagogy and finance of BRAC schools come from higher levels. The POs and the teachers however, could take measures regarding class time and class routine. The POs could sanction leave of teachers; and they could independently fix time for supervision of the centers, monthly refresher training, and parents teachers meeting. The POs report to the team in-charge. The POs prepared bi-weekly status report on their schools for their team-in-charge, which was sent to the respective regional managers. Since the team-in-charge and the POs shared the same office, the POs stated that they could discuss immediate academic concerns/issues and make decisions at grassroots level without delay.

It was learned from the BRAC head quarters that the POs have the following duties:

- Prepare teachers through a monthly refresher course;

- Observe classroom activities and provide feedback to teachers;
- Prepare school evaluation reports fortnightly and send them to higher authorities;
- Visit the homes of students;
- Participate in the monthly parents teachers meeting;
- Attend weekly staff meetings in the team office;

Profiles of BRAC Program Organizers are presented in Table 19.

Table 19: Profiles of BRAC Program Organizers (POs)

	Sex	Age	Education	Training	Skills	Years of experience as PO
School # 5	F	32	H.S.C.	Training on teaching, monitoring and community mobilization, and survey methods	Master trainer for Mathematics and Bengali	11
School # 6	M	31	H.S.C.	Training on teaching, monitoring		9

				and community mobilization, and survey methods		
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The POs visited the learning centers once a week for classroom observations. None of the POs lived in the villages where the learning centers were located. The POs said in interviews that difficulty arises during the rainy seasons to travel a long distance. On a particular day of school visit, the PO of school # 5 was found taking classes. Although BRAC teachers were mainly responsible for home visits of the students, both the POs participated in this activity. Parents stated in interviews that home visits of POs motivated them in sending their children to schools.

The POs conducted the monthly refresher training for the preparation of BRAC school teachers. Based on observation of a training session, it appeared that they had good knowledge of textbook contents. The strengths and weaknesses gathered through the POs' month long observation of classroom teaching were discussed in the refresher training. The teachers said in interviews that the discussions helped them prepare themselves for the following month. The POs also helped them in the preparation of lesson plans.

The POs mentioned in interviews that the teachers' wages were too low, which made it difficult to motivate the teachers to work hard. They said that they tried to encourage the teachers by praising the teachers for good work. They also expressed dissatisfaction with slow promotion in their profession. Both of them however, seemed committed to their job and were very much aware that they were working to create education facilities for a poor community. The respective team-in-charge for each centers in interviews acknowledged the contribution of the POs. They stated that the POs were hard working, committed and punctual.

At the regional level, the regional managers (RMs) are responsible for the administrative duties and the quality assurance specialists are responsible for the pedagogical aspects. It was learned from POs and parents that they visited the schools once in four-five months. It was learned from the head office that the monthly meetings of the RMs are held in Dhaka where they review the existing activities and plan for the future at the national level. The regional managers enjoy some autonomy regarding decisions about schools which included, appointing teachers and transferring POs within the region. BRAC Schools Monitoring and Evaluation Formats is shown in Table 20.

Table 20: BRAC Schools Monitoring and Evaluation Formats

Title of Format	Frequency of Use	Persons responsible to Fill up	Information is sent to
School Opening	Once within 15	PO Team-in-Charge	Head office

Date format	days		
School Monitoring Format	Weekly	Program Organizers (POs)	PO Team-in-Charge
School Observation Schedule	Bi-monthly	PO Team-in-Charge	Management Information System (MIS), Head Office
Classroom Monitoring Format	Weekly	Program Organizers (POs)	MIS, Head Office

B) Accountability of Schools

i) Hours of Operation

In GPS schools, in total, 75 national holidays were programmed for 2004 school year.

Two vacation periods were also incorporated into the holiday schedule: summer vacation (18 days in June) and winter vacation (six days in December). Three “contingency” days were included to cover unforeseen events (such as local celebrations or events).

Examination of the school register of rural GPS school showed that they were open and operating per the official school calendar. The head-teacher showed a register indicating that the school had been open the previous day. Students, parents and local people however refuted this, and eventually the head-teacher admitted that due to low attendance

of teachers, school could not be opened. In the first three months of the school calendar in 2004, the head-teacher admitted that the school was closed 31 days, in addition to the scheduled holidays. School closings as a result of teacher absence during this period were attributed to:

- Fifteen flood days
- Six cluster meeting days
- Three contingency days (anticipated for religious festival)
- Three election days (one spent in training)
- Two immunization days
- Two unscheduled school-level “contingency” days

The days lost to disaster were not factored into the official school calendar, no provisions were made for covering “contingency” days, and no strategies were in place to mitigate its impact on students’ schooling.

ii) Schools Starting Time

Although the official starting time for both single- and double-shift schools was 9:30 am, only the urban GPS and RNGPS schools started at the government-mandated time on the days of school visits. The head teacher of urban GPS stated in interview that teachers usually arrive by 9:15 am, precisely because it was on the regular route used by the Sub-district education officer (UPEO). The urban RNGPS was also located close to the UPEO office. The SMC chairman who donated the land for the school regularly visited the school to monitor its operations. Each of these urban schools had started (i.e. assembled

children into classes with teachers) on time on the days of schools visit, despite some teacher absences and tardiness.

The situation was notably different in rural schools. On a particular day, the first teacher in the rural GPS did not show up until noon, although students were assembled around 10:30-10:45 am. SMC members stated that the “official” starting time was between 11 am and noon (contrary to the head-teacher assertion of 10:00 am), and the students stated that school was conducted from 12:00 noon to 2:00 pm. Parents reported that on the previous day, the sole teacher who was present dismissed the students after 30 minutes.

iii) School Closing Time

The urban schools were closed at official closing time at 4.15 PM. The head-teacher of rural GPS school admitted that his school closed early as a matter of practice, anywhere from 2:00 pm to 3:00 PM, because he and the other teachers, who did not live in the community, needed the extra travel time in order to arrive home at a “reasonable” hour. The head teacher also reported that some of the students leave school during the mid-day break, because they are hungry and the schools did not provide “tiffin.” Teachers, however, did not express particular concern that students were leaving at break. Teachers in FGD said that post-Tiffin afternoon courses were less important than the morning ones, given that they focused mainly on Music, Arts, Physical Education, and Religious Studies. Teachers also disclosed that afternoon classes were usually cancelled if “enough” students did not show up.

iv) Teacher Absenteeism

On average 65 percent of GPS teachers stated that they had missed one or more days of school “last month.” Female teachers of urban GPS estimated that they missed three days, and men nearly four days. If repeated over twelve months, it would mean that teachers could miss between 20 and 30 days of school in a year.

The head-teachers are expected to maintain a register, recording teacher attendance. Records of teacher attendance are supposed to be sent to the UPEO for necessary actions. If teacher absences are unauthorized or contravene regulations and the tardiness is excessive, the UPEO would notify the teacher that his or her behavior. A “show cause” letter would be sent and the teacher would have to provide an acceptable response. If the answer is deemed unsatisfactory, then “appropriate” action would be taken. Possible penalties include docking salary, transfer (generally to a less desirable school), and ultimately losing one’s post.

In reality, there seemed to be no enforcement of the procedures and rules. None of the teachers interviewed reported that they had ever been penalized or even criticized for attendance lapses. None of the head-teachers interviewed reported that they had ever initiated action against a teacher for excessive absences or tardiness. Incidence of actions taken against teachers for poor attendance is shown in Table 21.

Table 21: Incidence of Actions Taken Against Teachers for Poor Attendance

	Urban			Rural			Total		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Absenteeism									
% of teachers criticized	0	0	0	0	0	0	0	0	0
% of teachers paid for all days missed	100	100	100	100	100	100	100	100	100
Tardiness/Early departure									
% of teachers whose pay had been adjusted	0	0	0	0	0	0	0	0	0
% of teachers criticized	0	0	0	0	0	0	0	0	0

N=24

v) Student Attendance

About a third of the students in rural GPS and RNGPS schools reported that the school did nothing about their absences. When schools did take action, it appeared that most often the teacher would ask the student about the reason for his absence (according to 59 percent of urban students and 48 percent of rural students). Smaller percentages (16 percent of urban students and 11 percent of rural students) reported that they were reprimanded.

The rural GPS was under the Primary Education Stipend Program (PESP) which required it to maintain 60 percent student attendance overall or they would be eliminated from the PESP. According to DPE/GOB, individual student attendance records and the overall attendance rate at the school were to be checked by a “surprise” visit from an UPEO. If the attendance level was below 60 percent on the day of the first visit, a second “surprise” visit by the UPEO was to be scheduled. If the school again failed to meet the 60 percent mark, then it would be dropped from program participation. There appeared to be some confusion about how the educational authorities were to deal with non-compliant schools. The head teacher reported that both the number of participating students and the level of the stipend payments were adjusted downward because of the poor student attendance levels at the school. Consequences of Absences Reported by Students is shown in Table 22.

Table 22: Consequences of Absences Reported by Students

	GPS	RNGPS

Percent of students reporting that when they miss school:	Total	Male	Female	Total	Male	Female
They don't understand lessons	21.9	9.1	28.6	13.9	8.7	23.1
Teacher beats them	0	0	0	0	0	0
Teacher scolds them	15.6	9.1	19.0	11.1	13.0	7.7
Teacher asks reason for absence	47.2	43.5	53.8	59.4	81.8	47.6
Someone from the school talks to their parents	2.1	2.1	0	2.8	0	7.7
A notice or letter is sent to their family	0	0	0	3.1	0	4.8
Their stipend money is reduced	11.1	8.7	15.4	0	0	0
Nothing happens	33.3	30.4	38.5	9.4	9.1	9.5

N=34

vi) Home Visits of Students

Government regulations, as reported by the Upazila Education Office, required that each teacher must make five home visits per month primarily to check on excessive student absenteeism. However, based on discussions with parents, students and local community, there seemed little evidence that such visits were conducted with any regularity,

particularly in rural areas (where distance and transportation were seen as problematical and non-resident teachers were eager to return home at the end of the school day). Head-teachers and teachers both in rural and urban schools alike indicated a general disinclination for such visits, noting that: there was little time left after school to make the visits, some student residences were inaccessible, female teachers' security was put at risk, an administrative assistance was better suited to make home visits during school hours. Only about three percent of rural GPS and RNGPS school students reported that someone from their schools talked to their parents. No parents or students reported home visits in urban areas, although three percent of parents said a letter or notice had been sent to their home.

From FGDs with parents it appeared that some of the absentee students may have been dropouts who had left school because they were falling behind or because the parents no longer felt that schooling was worth it.

vii) Student Absenteeism and Tardiness

Thirty percent of the rural GPS students mentioned that non availability of textbooks from the beginning of the academic year caused them to remain absent from schools. A third to over a half of the students of rural schools reported that early in the school year, there were often no classes even if they came to school. Teachers were not present and classes were cancelled.

Nearly half (47 percent) of students of GPS and RNGPS schools reported having been absent at least one day in the previous week, with a notably higher percentage in rural schools. Sixty seven percent of the rural girls reported having missed school at least once, compared to forty percent of urban girls. In the upper grades, the percentage of girls reporting absences the previous week in rural areas was more than twice as high as boys. Non availability of toilet facilities in rural areas was cited by over 80 percent of girls as the reason for remaining absent. On average students missed about two days, or one-third of the school week. Illness also cited as a reason for absence, although a higher percentage (44 percent) of students in rural areas reported missing school for illness than in urban areas (25 percent).

The major reason for tardiness, according to the students, was household work. Nearly 35 percent of rural students (female) said they had household work. An additional 23 percent of rural students (male) indicated that they had to work outside on the family farm or business. Teachers of rural RNGPS said FGD that rural students tend to be more absent during the monsoon and during harvest season. Teachers in rural schools also stated that children and parents had no sense of time, few had watches or clocks at home.

Travel time was noted by 11 percent students as a factor in punctuality. Virtually all children in the rural area walked to school. The distance from home to school for BRAC pupils ranged from less than 1 km to 2.5 km. In comparison, the average catchments area for formal schools was about 3 km, with distances greater in rural areas. Because of close proximity to BRAC schools, children lost less time in travel to and from school.

Especially for girls, this was considered relatively safe. Parents said in interviews that because of short distance from home to schools they were able to monitor what happened inside the schoolroom and how their children were treated.

Variable Six: Student and Parents' Expectations

Questions:

a) Are education programs in the various schools consistent with the needs, interests and capacities of students? In what ways does school learning meet or fail to meet the expectations of students and guardians?

A) Student and Parents' Expectations

An attempt was made to understand through interviewing female students of all schools, the kind of expectations they had in joining schools and how they linked literacy to their everyday life. A student of rural RNGPS school said that she joined the school because other girls from her area were attending it. She liked to come to school because it gave her opportunity to meet others. Minu, another student of the same school stated that she wanted to learn so that she could assist her little sister to study. Her parents were illiterate and she wanted to be a teacher. A student of rural GPS school said that she came to school to "kill time." Rural girls also said in interviews that they expected that education would give them ability to read and write so that they could - avoid the indignity of having to put their thumb impression; avoid harassment for not being able to read bus

numbers, names of shops, when going out on their own; and deal with written communication in an autonomous manner.

About 65 percent of girls from the urban schools said that they expected that primary schools would give them knowledge required for getting admissions into higher levels. In general, acquisition of literacy skills was perceived to be important in order to enable them to become independent, function autonomously and deal with everyday issues in an efficient manner. Said Rina, a twenty-three year old sales person of a book store owned by her family, situated next to urban RNGPS she once attended “I am now able to manage family business even if my husband is not around.” She added “I am able to help my son with his homework. She further added “a literate woman can manage things better because she is more confident and nobody can cheat her.” Nearly 90 percent girls reported that there were not much change in their relationship with their parents and siblings. Reasons students like to come to schools is presented in Table 23

Table 23: Students Like School Because...

	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
Percent of Students Who Like School Due To:						
Learning or Studying	56.6	65.2	50.0	67.4	64.7	71.1
Friends and Company	28.3	17.4	36.7	10.1	11.8	7.9
Opportunity to Learn	3.4	2.0	5.3	7.5	8.2	6.0

Rhymes and Songs						
Opportunity to Play	35.8	34.8	36.7	22.5	27.5	50.8
Avoiding Household Work	7.5	00	13.3	3.4	3.9	2.6
Nice Teachers				5.7	8.7	3.3
Stipend	9.0	5.9	13.2			
Potential for Good Job				3.4	5.9	00
Do Not Know	10.1	10.7	5.3	13.2	13.0	13.3

N= 18

Nearly 69 percent guardians of children of GPS schools did not give favorable opinion about teachers or schools. When asked whether they support extending school hours, a parent of a child attending the rural GPS school angrily indicated that he did not want the school day extended, and that instruction would be adequate “if the teachers would just show up.” Majority of parents (85 percent) in rural and urban areas stated that effective classroom learning could relieve the financial burden of private tutoring. Parents in the rural areas expressed frustration that they were too poor to pay for tutors and that, as a consequence, their children were not getting the instruction they needed to master basic skills and advance along the educational ladder. Reasons reported by students for being dissatisfied with schools is presented in Table 24.

Table 24: Students unhappy with school because...

	GPS			RNGPS		
	Total	Male	Female	Total	Male	Female
prescribed curriculum not followed	32	36	42.1	25	22	22.4
incomplete course syllabi	45	43	41.6	34	36	33.3
Cannot follow classroom teaching	67	70	72		45.9	48
teachers do not explain adequately in class	76	71.1	71.1	46	49	41
textbooks uninteresting	22	18	21	35	36	28

Parents expressed concern that their children were not learning what they should. A father of a grade II student of rural GPS school said that his daughter could not write her name. Another parent of a child attending the same school stated that his son could not read simple sentences. He said, “No learning takes place at this school.” On the other hand, about 80 percent parents of children attending BRAC schools gave favorable opinion about schools. BRAC students, nearly 71 percent, said that teachers were

affectionate to them. Parents stated that home visits of POs motivated them in sending their children to schools.

Significant differences were observed in students and parents' responses regarding preference of female teachers. About 85 percent guardians in the rural area preferred female teachers to teach female children compared to 47 percent in the urban area. Parents/guardians in general in the rural area said in interviews that they preferred to send their daughters to schools with female teachers. A mother of a child attending the urban RNGPS school said that the presence of female teachers encouraged her to come to school to check on her daughter's progress. A female student of rural RNGPS said that she felt comfortable with female teachers because she could tell everything of necessity to them. Students also mentioned that female teachers did not beat them. Both BRAC schools had female teachers and 85 students were girls. On average, the lowest student absenteeism was found in BRAC schools, about 20 percent.

About 10 percent female students in the rural area preferred not to continue further education because of ill health or poor eye sight or family reasons. Thirteen percent guardians said that they saw no point of acquiring education which seemingly had little relevance to their lives and which moreover might not improve their children's employment opportunities. Rural parents expressed dissatisfaction that arts and crafts classes were not offered in schools.

Sixty-eight percent of female students however, stated that their families were encouraging and approve of their efforts to educate themselves. They also affirmed that they wanted to continue with their education. Some guardians (8 percent) expected that their daughters would eventually become teachers, suggesting that the role model of 'teacher' was acceptable and respectable for girls.

Over 90 percent guardians of GPS schools reported that children had to pay for textbooks and other supplies although these were supposed to be provided free of costs. Parents reported that major expenditure items incurred by families were private tutoring, fees for exam and other occasions, pencil and paper, and Tiffin. No student or parent of children in BRAC schools reported of being charged for books and other supplies. The direct costs of education, cited by 88 percent parents in the rural area as contributing to low student attendance and retention. Over ninety percent parents/guardians in the rural areas also stated in interviews that the provisions of free books, stationeries, meals, uniforms, scholarships and stipends were helpful in their efforts to provide education to their children.

i) Private Tutoring

Roughly half (46 percent) of the urban and rural students reported using private tutors to help them with their studies. Students who received tutoring indicated that they spent seven to eight hours a week in tutoring sessions. Those who used tutors reported that they needed additional help to understand the lesson, to cover the curriculum and to get better

results. No student of BRAC schools reported of using private tutors. Students Use of Private Tutors is shown in Table 25.

Table 25: Students' Use of Private Tutors

	Urban			Rural		
	Total	Male	Female	Total	Male	Female
Percent of students receiving private tutoring	46.3	58.3	36.7	45.6	48.1	42.1
Average number of hours per week	7.8	8	7.5	7.4	7.8	6.6
Percent of students saying they need tutoring to:						
Cover curriculum	25.0	23.1	27.3	17.9	17.4	18.8
Get better results	50.0	61.5	36.4	35.9	43.5	25.0

Need help to understand lesson	41.7	23.1	63.6	43.6	47.8	37.5
In fear of punishment				7.7	.00	18.8

(N=22)

Learning Outcomes

A) Knowledge Tests (Item-wise Analysis)

This study conducted a knowledge test of Grade V students of all schools to understand the relative differences among the schools in learning achievements. The tests were conducted on the following subjects: Bengali, English, Mathematics, and Social Science.

Bengali and English reading and writing skills were tested. The three components in reading assessment were: 1) reading words, 2) reading sentences and 3) reading a comprehension passage. The three components of writing assessment were: 1) writing words, 2) writing sentences, and 2) writing a paragraph. Mathematics section included following: 1) counting objects, 2) finding out missing number, 3) subtraction, 4) multiplication, and 5) two problem solving questions. For assessment on Social Science, questions on health and hygiene, and on duties as members of society were included. The test results showed that the students of BRAC schools, urban students, and boys achieved higher averages than their respective counterparts. The average percentage

score of students of urban RNGPS and BRAC schools were higher than the rest (GPS schools and the rural RNGPS school). In terms of learning achievements, the performance of female students of rural GPS school was the lowest among all. About 42 percent students (53 percent of them, girls) of rural GPS were not able to write an English letter, or do a simple math sum. It appeared from test results that the students of all schools weak in 'writing English', and 'problem solving in Mathematics' . The average percentage scores of students in Bengali and Social Science in all schools were than those in English and Mathematics. However, 19 percent of students in BRAC schools achieved all five Mathematics competencies compared to 15.2 percent in RNGPS and 10.6 percent in GPS schools. The BRAC students scored higher than other schools in 'reading Bengali', and in Social Science assessment items such as, 'duties as a member of society' and 'importance of good health'.

B) Other findings on Student Achievements

Other findings on school performances in terms of student achievements are consistent with the results of the knowledge test. Random or opportunistic questioning of the students of all schools demonstrated that the competencies of students of urban RNGPS and BRAC schools were higher than those of the others. The average annual examination pass rates of students in 2004 in Grades II-V in urban GPS and RNGPS schools were above 70 percent, while those of rural RNGPS, above 60 percent, and those of rural GPS school, below 60 percent. The average pass rates in BRAC schools were above 80 percent, the highest among all. During the period 1999-2003, only four girls from GPS

and RNGPS schools received national scholarships, three of them belonged to urban RNGPS school.

Summary and Conclusions

This section summarizes the findings of the study, extracting the features which distinguished schools and the effects these features had on the learning outcomes in the three types of schools.

The average student achievements in GPS schools in the knowledge test conducted for this study and average annual examination pass rates of students in grades II-V were low compared to those in RNGPS and BRAC schools. The average achievement of girls in GPS schools was also low compared to those in RNGPS and BRAC schools. The average student achievements and also of girls were the highest in BRAC schools. A combination of variable factors explains the lower learning outcomes in GPS schools.

1) Availability of Physical Facilities and Textbooks

Textbooks were not made available to students in GPS schools in a timely manner. Nearly 22 percent students of GPS schools reported that they could not attend school from the beginning of the academic year due to non availability of textbooks. The rural GPS school had no toilet facilities for students. About 90 percent guardians in the rural areas in FGD stated that the lack of toilet facilities discouraged girls' attendance to schools.

2) Contact and Instructional Time

Students in GPS schools received less contact time and classroom instruction time, both in comparison with RNGPS schools and with Government of Bangladesh standards. GPS schools operate between 60 percent and 78 percent of the total scheduled days of operation. Low attendance, late arrival and early departure of teachers were major factors limiting classroom instruction time in GPS schools. About 13 percent of teachers of GPS schools were absent and 23 percent of teachers and 50 percent of head-teachers were late and about half were three to four hours late on the days of school visits. Training, non instruction related government duties, and personal affairs took teachers time away from instruction duties while the schools were in session. In the year 2004, over 90 percent GPS and 64 percent RNGPS school teachers undertook non instruction related government duties while the schools were in session. At least one month of contact time with students at the beginning and at the end of the school year were sacrificed by teachers to administrative and non-teaching activities, such as student registration and textbook management. Half (46 percent) of the GPS teachers interviewed claimed that non instruction related government duties had a deleterious impact on their work as teachers. Half (45 percent) said that these duties resulted in absenteeism: either the teacher was required to miss the entire day of school (27 percent) or was too fatigued by the non-school activity to attend school and resume teaching activities the next day. Fifty eight percent GPS teachers reported that they left school early because of domestic chores and income generating activities. Low attendance of teachers contributed to class cancellation and school closing. Rural marginally staffed GPS school (had only 4 teachers, and 1 of them on deputation) was more vulnerable to closing due to low attendance of teachers. Despite the high incidence of absenteeism and tardiness, none of

the GPS teachers reported that they had ever been penalized or even criticized for attendance lapses.

On average teaching or “instruction” occupied 63 percent of the class time in the classes observed in GPS schools compared to 68 percent in RNGPS schools. In the rural GPS school on average, teachers spent 50 percent of class time on instruction, compared to 56 percent in rural RNGPS school. Teachers in urban schools spent 72 percent of class time on instruction. Non-instructional time (on average, 28 percent in urban classes and 44 percent in rural classes) was primarily devoted to class administration. Continuous assessment of learning of students was present in urban RNGPS and BRAC schools but not in GPS schools. Peer learning observed in BRAC schools, and special coaching for children with learning difficulties observed in urban RNGPS school, was not observed in GPS schools. Music, and Arts and Crafts classes were held regularly only in BRAC schools.

3) Teacher Inputs, Female Teacher, Training

Four percent GPS teachers did admit in interviews that they had experienced problems due to favoritism and delays in appointment. Violation and manipulation of rules in teacher selection contributed to the recruitment of unqualified people as teachers in GPS schools. The GPS schools were understaffed. The urban GPS school had 9 teachers for 332 students and the rural GPS school had only 4 teachers for 241 students. The average numbers of female teachers in GPS, RNGPS, and BRAC schools were 1, 2.5, and 1 respectively. The gender imbalance in teaching positions remained high in GPS schools

in comparison to RNGPS and BRAC schools despite affirmative government policies of recruiting 60 percent female and 40 percent male teachers in primary schools. The rural GPS school had no female teacher. About 85 percent guardians in the rural area preferred female teachers in schools compared to 47 percent in urban area. Both the female teachers of urban GPS schools said in interviews that they preferred not to be placed in distant rural areas due to family reasons, accommodation and transportation problems. Female teachers accounted for 90 percent in BRAC schools and 85 percent students were girls. BRAC schools had the highest average student attendance rate, above 80 percent. Teachers of GPS and RNGPS schools had higher levels of education compared to those in BRAC schools. The average student achievement rates of BRAC schools however, were higher than those in GPS and RNGPS schools. BRAC teachers stated in interviews that they found monthly refresher training courses useful for preparation of lesson plans. They also stated that discussions of strengths and weaknesses of teachers by the POs on the basis of their month long classroom observations helped them in teaching. On the other hand, GPS and RNGPS school teachers stated that two main initiatives for in-service training: sub-cluster training and Upazila Resource Centers (URC) subject-based training - were not working well. A GPS teacher described sub-cluster training as “monthly social gathering.”

4) Parents and Community Involvement

The government has assigned a broad role to the School Management Committee (SMC) of primary school which included among others, involvement in school development such as, in schoolhouse construction and repair, monitoring and supervising school

activities and performances. In reality, SMCs had little participation in the activities of GPS schools. SMC meetings were not held regularly. Average attendance of SMC members in monthly meetings was low compared with RNGPS schools. The local community appeared more involved in the activities of RNGPS and BRAC schools. The SMC chairman donated the school land. He visited the school once a week to monitor teacher attendance and classroom learning. SMC members provided material and financial support to RNGPS schools. In case of BRAC schools, the community assisted the BRAC authorities in finding location for schools. School hours of operation were fixed in consultation with parents. Members of parents committees regularly monitored attendance of teachers and hours of school operation. Parents teachers meetings were also held regularly. The average attendance rates of parents in monthly meetings were about 80 percent.

5) Supervision and Monitoring

Among the four head teachers, only the head teacher of urban RNGPS school regularly observed classrooms and provided feedback. Special coaching to assist children with learning difficulties, recruitment of volunteer teachers, regular staff and SMC meetings, entrepreneurial activities for raising funds to meet urgent needs of school – all these were present in urban RNGPS school. The textbooks arrived in this school earlier than in the case of GPS schools and school year began earlier than the latter. The POs regularly visited BRAC learning centers once a week and monitored classroom learning and teacher attendance. They also visited homes of children who did not show up for days. Parents said home visits by POs motivated them to send children. The average student

attendance rate was the highest in BRAC schools, above 80 percent. Teacher absenteeism was the lowest in BRAC schools, less than 10 percent.

The education field level officials visited the urban GPS and RNGPS schools which were in close proximity to sub district education office more frequently (4-5 times) than the distant rural ones, rural GPS and RNGPS schools. The urban GPS and RNGPS schools started on time and closed at official closing time on the days of school visits. The rural GPS school was not inspected by education officials even once in 2004. Teacher absenteeism was the highest in rural GPS school. Teacher tardiness and early departure were most evident in this school. In 2004, the number of days of operation of GPS schools was below 220 days, the lowest among the three types of schools. The number of days of operation were higher in RNGPS schools (266-270) compared with GPS schools. While BRAC schools remained open for 290 days, the highest among all. Irregular school days of operation due to teacher absences, the slow start-up of the school year, and delayed delivery of books caused confusion and encouraged poor student attendance in GPS schools. Student absenteeism were the highest in GPS schools, 44 percent on average.

6) Expenditures to be Borne by Parents for Education Services

Education is free in GPS and BRAC schools. About 90 percent guardians in GPS schools however, reported that children had to pay for textbooks and other supplies, and exam fees. No student or parent in BRAC schools reported of being charged for education. Unofficial fees caused children to remain absent or leave GPS schools. Direct cost of

education was cited by 88 percent parents as major constraint to children enrollment and retention. Nearly half (Forty three percent) of the total students in GPS and RNGPS schools, reported using out-of-school tutors to help them. The average percentage of girls using private tutors was (24 percent) less than that of boys. Those who used tutors reported that they needed additional help to understand the lesson, to cover the curriculum and to get better results. No student of BRAC schools reported using private tutors. About 85 percent guardians stated that effective classroom learning could relieve the financial burden of private tutoring. Nearly 69 percent guardians of children of GPS schools did not give favorable opinion about teachers or schools. Fifty eight percent parents stated in interviews that they wanted children learn practical skills. Arts and Crafts classes were held regularly only in BRAC schools. Thirteen percent guardians said that they saw no point of acquiring education which seemingly had little relevance to their lives.

Among the three types of schools, the average achievements of students as well as of girls in GPS schools were the lowest. The rural GPS school had no toilet facilities for students and no female teacher. Continuous assessment of student learning and use of lesson plan were observed in urban RNGPS and BRAC schools (schools with higher student achievements compared to others), but not in GPS schools. Teacher and student absenteeism was the highest in GPS schools and contact hours and instruction time was the lowest among all. Late availability of textbooks (in comparison with other types of schools), charging students “unofficial fees” (unlike BRAC schools), absence of

instructional supervision and less involvement of community and no school inspection by education officials in a year were evident GPS schools.

The average achievements of students and of girls in RNGPS schools were higher than those in GPS schools. The average teacher and student absenteeism was lower and contact hours were higher in RNGPS schools compared with GPS schools. Textbooks were made available to students earlier than in the case of the latter. Both rural and urban schools had female teachers Classroom observation by head teacher and SMC members, special coaching classes, continuous assessment of student learning, use of lesson plan, community involvement in providing financial and material support to schools, monitoring teacher attendance, more school inspection (five times a year), were evident in RNGPS schools.

The average student achievements of BRAC schools were the highest among all. The average achievement of girls was also the highest. Female teachers in BRAC schools accounted for about 90 percent, and 85 students were girls. BRAC schools had the lowest teacher absenteeism. School remained open for higher number of days in comparison with other two types. BRAC schools had the highest average student attendance rate, about 80 percent. Continuous learning assessment of students and use of lesson plans were present in BRAC schools. Music, and Arts and Crafts classes were held regularly in BRAC schools. Teacher attendance and classroom learning were regularly monitored and instructional guidance was provided to teachers at the monthly refresher training. Involvement of parents was higher in BRAC schools compared with GPS and RNGPS

schools. Parents participated in finding location for schools, setting school hours, and monitoring teacher attendance. Textbooks were made available to students in a timely manner. The expenses of education for the rural poor were kept low by not charging fees (like GPS schools) for “free” education in BRAC schools.

Among the management variable factors, the availability of textbooks, toilet facilities, female teachers, contact and instructional time, instruction methods, parents and community involvement, instructional supervision, and expenses to be borne for education services - are the factors that significantly affected students’ acquisition of knowledge, competencies and skills in the three types of schools.

Compared to RNGPS and BRAC schools, GPS schools had late supply of textbooks, fewer female teachers (none in rural GPS school), inadequate toilet facilities (no toilet facilities for students in rural GPS school), lower contact and instructional time, less involvement of parents and community in school activities and less instructional supervision. Continuous learning assessment of students was present in RNGPS and BRAC schools but not in GPS schools. Although education in GPS and BRAC schools was free, students in GPS schools were charged fees for education services. These factors contributed to the lowest learning outcomes of females of GPS schools among the three types of schools.

CHAPTER IV SYNTHESIS AND CONCLUSIONS

This Chapter recapitulates the findings of the study extracting the features which distinguished schools and the effect these features had on the learning outcomes in the three types of schools. This chapter also includes suggestions and recommendations for future study.

Among the three types of schools, the average student achievements in GPS schools in the knowledge test conducted for this study and average annual examination pass rates of students in grades II-V were low compared to those in RNGPS and BRAC schools. The average achievements of girls in GPS schools were also low compared with those in RNGPS and BRAC schools. The average achievements of students and of girls were the highest in BRAC schools. A combination of variable factors explains the lower learning outcomes in GPS schools.

1) Availability of Physical Facilities and Textbooks

GPS did not have sufficient classroom space for all the enrolled children. There were 3.8 classrooms for 287 students on average in GPS schools. Rural GPS classrooms could accommodate only two thirds of the children enrolled. The learners of lower grade classes were found sitting congested in benches, hardly able to move. The rural GPS school had no toilet facilities for students. Above 90 percent guardians in the rural areas stated in FGDs that the non availability of toilet facilities discouraged girls' attendance to schools. The condition of physical facilities in GPS was poor despite government

allocation of 88-92 percent of national development budget for the development of physical facilities in 2003. GPS schools had little funds available to be used at their discretion. Construction and repair jobs were done with the periodic government grants and were handled by the Local Government Engineering Department (LGED) without much say of school and sub district education office. The work of LGED was described by the head teacher of urban GPS school, as highly unsatisfactory, characterized by waste and corruption.

Textbooks were not made available to students in a timely manner in GPS schools. Children had to wait two to three months to obtain all their textbooks. In 2005, 67 percent of the students received books in January, 32 percent by March, and about 1 percent were yet to receive them in the rural GPS school, although the school year began in mid-February. When GPS teachers were asked how they and students cope without textbooks, teachers said that when there were not enough books for each student, children were asked to share books with one other. About 22 percent students of rural GPS school reported that they could not attend school from the beginning of the academic year due to the non availability of textbooks. On the other hand, all textbooks for Grades I-III in BRAC schools arrived by January in schools.

2) Curriculum Design and Modes of Delivery of Lessons

A) Curriculum Design

The curriculum to be followed in primary schools is set by the government. According to government rules (DPE/GOB), the primary school curriculum for Grade I and II included Bengali, Mathematics, Social Science, Physical Education, Arts, Music, and Religion. In addition to these subjects, English is added as a second language from Grade III. The Science and Social Science books had some useful lessons on health and hygiene. Health and hygiene issues were also included in the English texts. There were lessons on pure water, proper eating habits, ideas about correct tube-well installation, and lessons on waste disposal. Some elements of population education and agricultural contents had been included in textbooks of Grades IV and V.

Textbooks and Gender Concerns

In illustrations or drawings, depictions of women appeared far less than men. Where human virtues or accomplishments in specific fields were recorded, almost all people selected such as, scientists, social workers, statesmen, and war heroes, were men (over 90 percent). Stories or poems with female characterization were very few, accounting for less than 10 percent. Even in writings on folk art and handicrafts, where women's participation was traditional and noteworthy, and in articles on cooperatives where women in recent times had proved their worth, women were infrequently mentioned. The English primer for Grade IV (published by NCTB) presented the life of one Mr. Ali, a farmer who lived with his two small children in a village in Bangladesh. The text and illustrations showed this happy family, purported to be an average family, devoid of any stresses and strains that in reality such a family would be prone to in the daily struggle for survival. Such a rose-tinted depiction of rural life would little likely to stimulate any

interest in a rural girl. The BRAC Social Science textbook for Grade II for example, projected the picture of men in every sphere of social activity except portraying the curse of having a big family, where a picture of a woman was shown surrounded by a number of malnourished children.

Discussions with students of rural GPS and RNGPS schools revealed that they never had music lessons and physical education was rare. Music, and Arts and Crafts classes were held regularly only in BRAC schools. Parents said in FGDs that they preferred children acquire practical skills.

B) Contact and Instructional Time

Contact hours and instructional hours determine the interaction between students and teachers and are important variables in student learning. Students in GPS schools received very little contact time and even less time for instruction, in comparison with RNGPS schools, Government of Bangladesh standards, and international norms. Low school attendance, tardiness and early departures of teachers contributed to low amount of contact and instructional time in GPS schools. Training, non-instruction related government duties including, student registration, textbook management, voter registration, health campaigns, and personal affairs such as income generating activities caused teachers to miss school, be late and leave early. About 70 percent parents in GPS schools stated that they would send their children to schools in January and February, only to have them return home saying that the teachers were not there or were not holding

classes. The teachers of these schools admitted that January was a chaotic month and if any classes were conducted, it was generally on a sporadic basis.

GPS and RNGPS teachers had to fulfill non instruction related government duties in addition to teaching, attending SMC and staff meetings, training, and planning for sports celebrations. GPS teachers, being direct government employees, were called upon for extra-school duties more frequently than those of RNGPS. Over 90 percent GPS and 64 percent of RNGPS school teachers undertook some official duties while the schools were in session during the year 2004. Half (46 percent) of the GPS teachers interviewed claimed that non instruction related government duties had a deleterious impact on their work as teachers. Half (45 percent) said that these duties resulted in absenteeism: either the teacher was required to miss the entire day of school (27 percent) or was too fatigued by the non-school activity to attend school and resume teaching activities the next day.

About 62 percent of GPS and 58 percent of RNGPS teachers participated in some form of training in 2004 and on average missed six days during the year. About 13 percent of teachers of GPS schools were absent and 23 percent of teachers and 50 percent of head-teachers were late and about half were three to four hours late on the days of school visits. Nearly 68 percent of GPS teachers said that they left school early because of domestic chores and income-generating activities. Of the total teachers interviewed, 40 percent were engaged in income-generating activities. Teachers (58 percent) at rural schools were engaged in income-generating activities compared to their urban counterparts (21 percent). As for reasons of tardiness, distance to school was cited by 11

percent of teachers, as was attendance at a special event. Teacher absenteeism and tardiness affected student attendance. Of the six schools visited, the rural GPS had the lowest teacher attendance rates and the lowest student attendance rates.

In GPS schools, in total, 75 national holidays were programmed for 2004 school year.

Two vacation periods were also incorporated into the holiday schedule: summer vacation (18 days in June) and winter vacation (six days in December). Three “contingency” days were included to cover unforeseen events (such as local celebrations or events).

In 2004, the number of days of operation of GPS schools was below 220 days, the lowest among the three types of schools. The number of days of operation were higher in RNGPS schools (266-270) compared with GPS schools. While BRAC schools remained open for 290 days, the highest among all. Irregular school days of operation due to teacher absences, the slow start-up of the school year, and delayed delivery of books caused confusion and encouraged poor student attendance in GPS schools. Student absenteeism was the highest in GPS schools, 44 percent on average.

In the first three months of the school calendar in 2004, the head-teacher admitted that the school was closed 31 days, in addition to the scheduled holidays. School closings as a result of teacher absence during this period were attributed to:

- Fifteen flood days
- Six cluster meeting days
- Three contingency days (anticipated for religious festival)
- Three election days (one spent in training)

- Two immunization days
- Two unscheduled school-level “contingency” days

The days lost to disaster were not factored into the official school calendar, no provisions were made for covering “contingency” days, and no strategies were in place to mitigate its impact on students’ schooling. When asked how they dealt with a school schedule and contact time that was often infringed on by unexpected events (e.g. disaster days, unexpected official events, and teacher absences), GPS school teachers in FGD stated that they did not schedule make-up or remedial classes, but “manage to cover two lessons in one class” by going over the material faster so as not to fall behind the academic program.

On average teaching or “instruction” occupied 63 percent of the class time in the classes observed in GPS schools compared to 68 percent in RNGPS schools. In the rural GPS school on average, teachers spent 50 percent of class time on instruction, compared to 56 percent in rural RNGPS school. Non-instructional time (on average, 28 percent in urban classes and 44 percent in rural classes) was primarily devoted to class administration. It was observed that about 60 percent students of rural GPS would gossip during individual assignments, while a classmate was solving a problem at the chalkboard or the teacher was working with another student. A high degree of chaos was allowed to reign in this particular school with children running in and out of classrooms at will.

C) Instruction Methods

It was learned from DPE/GOB that the teaching aids provided by the government include, blackboards, dusters, chalks, charts, abacus, compasses, thermometers, bar magnets, weighing scales, globes, clay models, geometry boxes, maps, alphabet cards, clocks and pictures of renowned personalities. Except chalks, blackboards, maps, and posters, none of the others were found in classes observed in GPS and RNGPS schools. The head-teacher of rural GPS school who lived closed to the school, said that he stored teaching aids at home and brought them when needed. Students said that they enjoyed classes where teaching aids, such as story telling, pictures and posters were used. Use of education aids was higher in BRAC schools, about 60 percent teachers explained topics using education aids, compared to 20 percent of those in GPS and RNGPS school.

About 80 percent teachers of GPS and 56 percent of those of RNGPS admitted that they attended schools without any preparation. Lecturing and reading out from the textbooks with occasional explanations were the dominant methods in these schools. Continuous assessment of student learning and use of lesson plan were present in those schools with higher learning outcomes - urban RNGPS (School # 2) and BRAC schools (School # 5 & 6), but not in GPS schools. Homework assignments were given regularly in BRAC schools, mainly for mathematics and handwriting. Teachers said in interviews that considering parents educational status, no new work was provided for home learning. Pupils were only asked to redo work at home that they had already done in the classrooms.

On average, about 60 percent and 42 percent teachers of GPS and RNGPS schools respectively did not check the home tasks or discussed mistakes on the previous day's homework with the children. Examination of children's home task copybooks revealed that about 20 percent GPS teachers signed the exercise books without correcting them. About 43 percent children of GPS could not complete homework. As reasons for not completing homework, more than 60 percent students stated that they could not follow classroom instructions.

The knowledge and skills of teachers in GPS schools remained seriously deficient. About 10 percent GPS teachers gave wrong information and/or wrong ideas about contents of lessons. The lack of teachers to teach English and Mathematics was higher in GPS schools than in other types of schools. The results of knowledge test conducted for this study showed that about 42 percent students (53 percent of them, girls) of rural GPS school were not able to write an English letter, or do a simple math sum.

3) Teacher Inputs

The GPS schools were understaffed. The urban GPS school had 9 teachers for 332 students and the rural GPS school had only 4 teachers for 241 students. This school was more vulnerable to closing due to low attendance of teachers.

i) Female Teacher

The average numbers of female teachers in GPS, RNGPS, and BRAC schools were 1, 2.5, and 1 respectively. The gender imbalance in teaching positions remained high in

GPS schools despite affirmative government policies of recruiting 60 percent female and 40 percent male teachers in primary schools. The rural GPS school had no female teacher. About 85 percent guardians in the rural area preferred female teachers in schools. Over 80 percent of female teachers of urban schools said that they preferred not to be placed in rural schools. They also stated in interviews about the problems they experienced when they were not posted in their local areas, such as: 1) problem of accommodation or financial cost of establishing a second household in the rural areas; 2) difficulties in fulfilling family/domestic obligations (husbands working in urban areas); 3) problems in meeting children's educational needs; 4) personal safety/ security problems in unfamiliar localities and 5) problem of transportation. GPS and RNGPS teachers reported that the Bangladesh Primary Teachers Association, the agency for providing professional support to teachers, did not assist in settling to new areas.

The RNGPS and BRAC school teachers were hired from among the local community. It was learnt from interviewing POs of BRAC schools that teachers must be married residents of the villages where the learning centers were located (to avoid losing personnel due to spousal transfers). There is no provision for transferring the teachers from one school to another in BRAC system. Female teachers in BRAC schools account for about 90 percent, and 85 students were girls. BRAC schools had the highest average student attendance rate, about 80 percent.

ii) Training

Teachers of GPS and RNGPS schools had higher levels of education compared to those in BRAC schools. The average student achievement rates of BRAC schools however, were higher than those in GPS and RNGPS schools. BRAC teachers stated in interviews that they found monthly refresher training courses useful for preparation of lesson plans. They also stated that discussions of strengths and weaknesses of teachers by the POs on the basis of their month long classroom observations helped them in teaching. On the other hand, GPS and RNGPS school teachers stated that two main initiatives for in-service training: sub-cluster training and Upazila Resource Centers (URC) subject-based training - were not working well. A GPS teacher described sub-cluster training as “monthly social gathering.” Primary Teacher Training Institute (PTI) instructors mentioned that they were overburdened with work load. On average, an instructor had to take 17 classes per week. There were only 54 (53 public and 1 private) Primary Teacher Training Institute in the country in 2004, for over 500,000 teachers.

5) Community Involvement

The government has assigned a broad role to the 11 member School Management Committee (SMC) of primary school which included among others, involvement in school development activities such as, in schoolhouse construction and repair, and monitoring and supervising school performance. Widespread dissatisfaction was expressed by GPS teachers about how SMCs functioned. The problem most frequently noted by parents and teachers was undue influence of head teachers and local political people in the selection process. This influence, it was said, resulted in people who are uneducated and had no interest in education being selected as members of committees.

Either the head teacher arranged to have his friends and relatives in the committee or the politicians saw the membership as a reward for their supporters. SMC monthly meetings were not held regularly in GPS schools. About 60 percent members were observed present at a SMC monthly meeting in the urban GPS school. No kind of financial or material support for school was pledged by SMC members. The head teachers, teachers, SMC members did not report in interviews about SMCs providing such support to schools. From FGD with SMC members it appeared that they were ill-informed of the regulations governing school time and operations. SMC members expressed helplessness in dealing with teacher attendance issues.

On the other hand, the average attendance of SMC members in monthly meetings in RNGPS schools were higher compared to those of GPS schools, about 75 percent. It was learned from head teachers and from FGD with SMC members in RNGPS schools that the members provided electric fans, sports materials, furniture, financial help, and part time teachers in collaboration with local elites. The SMC chairman of urban RNGPS school who donated the school land and had a grand daughter enrolled in school visited the school almost every week. The SMC chairman inquired about teacher and student attendance and made notes to discuss at the next SMC meeting. He occasionally visited classrooms and administered “quiz test” on the lesson of the day. SMC members of rural RNGPS provided financial support for minor repairing of school houses and fencing school boundaries. In BRAC schools, it was observed that parents regularly monitored teacher attendance and school hours. Parents teachers monthly meeting were also held

regularly in BRAC schools. The attendance registrar showed that on average 80 percent parents attended such meetings. Schools hours were fixed in consultation with parents.

5) Monitoring and Supervision

Among the four head teachers, the one of urban RNGPS appeared to be more involved in school activities. It was learned from FGD with teachers that this head teacher regularly observed classes and provided feedback. Special coaching to assist children with learning difficulties, recruitment of volunteer teachers, regular staff and SMC meetings – all these were found in urban RNGPS school. The textbooks arrived in this school earlier and school year also began earlier among all GPS and RNGPS schools. The head teacher of urban GPS school stated in interview that due to shortage of teachers, he had to take 5-6 classes a week, which took his time away from supervision. The AUPEOs mentioned in interviews that about 65 percent of head teachers of GPS schools were promoted from the ranks of teachers on the basis of seniority; this policy led people to become head teachers who did not necessarily have the leadership quality. Head-teacher of rural GPS school mentioned that teacher participation in training activities had required him to close the school. This head-teacher estimated that he missed about 45 days of school because of his participation in training, although he claimed the school was open during his absence. Parents disagreed, saying that either the single teacher left in charge did not appear at the school or decided not to open it after he had completed his pre-school day coaching class for grade five students. The head-teacher did not apply for a temporary or substitute teacher to fill the deficit.

The Upazila Primary Education Officer (UPEOs) and Assistant Upazila Primary Education Officers (AUPEOs) are the educational administrators most closely linked to GPS and RNGPS schools. The DPE/GOB has assigned wide ranging responsibilities to officers which included among others, school inspection, school evaluation, and instructional supervision and support. It was learned from teachers and head teachers of the urban GPS and RNGPS schools that the AUPEOs visited these schools 4-5 times in the year 2004. These schools were located in close proximity to Upazila Education Offices. The rural RNGPS school was visited only once and the rural GPS went a year without a visit. The rural GPS school was the furthest from the upazila headquarters. On the days of school visits, it was observed that the urban schools had started (i.e. assembled children into classes with teachers) despite some teacher absences and tardiness. Attendance of students was also higher in these schools (above 56 percent) compared to their rural counterparts (below 52 percent). The rural GPS school was not inspected by education officials even once in 2004. Teacher absenteeism was the highest in rural GPS school. Teacher tardiness and early departure were most evident in this school. Perhaps “protected” by distance and inaccessibility, the rural GPS school seemed to take exceptional liberty in determining whether it would open or not. There appeared to be little fear of enforcement or penalty.

Schools were not properly evaluated. It was learned from a member of SMC rural GPS school that education officials do not visit the school for inspection but have the head teacher fill out the school inspection form. It was learned from field level education

officials that the information gathered from these reports were seldom used to reward, penalize or improve schools. Schools' grades were not made public.

Teachers of GPS and RNGPS schools mentioned in FGDs that they did not receive academic guidance from UPO. They said that the AUPEOs do not interact with the teachers or the students or monitor classroom learning.

When there are student absences and excessive tardiness, the teachers are supposed to visit with parents to see what is wrong and to urge the parents to improve attendance regularity of their children. The regulations - as reported by the local education authorities required that each teacher must make five home visits per month. Headmasters and teachers are required to keep careful records of absenteeism and tardiness and other data on the school. Teacher action to contact and counsel parents of absent or dropout children infrequent, despite the regulations indicating that they should do so.

The POs regularly visited BRAC learning centers once a week and monitored classroom learning and teacher attendance. They also visited homes of children who did not show up for days. Parents said home visits by POs motivated them to send children. The average student attendance rate was the highest in BRAC schools, above 80 percent.

Teacher absenteeism was the lowest in BRAC schools, less than 10 percent.

In BRAC schools, about 75 percent teachers and students were appeared on time on the days of school visits. The POs and teachers had a good relationship with the parents. The teachers are recruited from the villages, so the community knew them beforehand.

6) Educational Expenses to be Borne by Parents

Education is free in GPS and BRAC schools. About 90 percent parents/guardians interviewed, reported incurring expenditures of some sort, including payment of textbooks and other supplies, exam fees, fees to arrange cultural or religious events of the school or to meet various school-related needs. No student or parent in BRAC schools reported of being charged for education. Unofficial fees caused children to remain absent or leave GPS schools. Direct cost of education was cited by 88 percent parents as major constraint to children enrollment and retention. Nearly half (Forty three percent) of the total students in GPS and RNGPS schools, reported using out-of-school tutors to help them. The average percentage of girls using private tutors was (24 percent) less than that of boys. Those who used tutors reported that they needed additional help to understand the lesson, to cover the curriculum and to get better results. No student of BRAC schools reported using private tutors. About 85 percent guardians stated that effective classroom learning could relieve the financial burden of private tutoring. Nearly 69 percent guardians of children of GPS schools did not give favorable opinion about teachers or schools. Fifty eight percent parents stated in interviews that they wanted children learn practical skills. Arts and Crafts classes were held regularly only in BRAC schools. Thirteen percent guardians said that they saw no point of acquiring education which seemingly had little relevance to their lives. As reasons for being dissatisfied with school most students (urban student 48 percent and rural 72 percent), reported that they could not follow classroom teaching. Also, 41 percent urban and 71.1 percent rural students stated that teachers do not explain adequately in class.

About 80 percent BRAC school students (who were mostly females) guardians gave favorable opinion about schools. 78 percent BRAC students said that teachers were affectionate to them.

While many elements contributes to acquisition of knowledge, competencies and skills, the minimal amounts of contact and instructional time go far in explaining the low achievement levels of GPS school students. They are also a significant factor in the poor and irregular attendance of many primary school students. And they explain why nearly half of the students surveyed turn to private tutors for instruction. The low rates of teacher attendance and the practices associated with absenteeism and lack of punctuality observed particularly in the public schools contributes to low instruction time to adequately master the fundamental skills of literacy and numeracy. Also, late supply of textbooks, inadequate toilet facilities (no toilet facilities for students in rural GPS school), fewer female teachers (none in rural GPS school), lack of knowledge of teachers and professional support, absence of continuous learning assessment of students and lesson plans, less involvement of parents and community in school activities and less instructional supervision and support, and charging fees for “free” education contributed to the lowest learning outcomes in GPS schools.

A combination of factors contributed to lower learning outcomes of females in GPS schools. Therefore, a comprehensive approach is needed to address problems or variable factors identified in this study to improve the present situation. If the teacher lacks knowledge and skills, commitment alone will be disservice to students. A highly

experienced and effective teacher working in an overcrowded, unbearably hot classroom with students with very poor preparation and no books to use may not have students to test so well. Administrators of undersupplied schools cannot easily compensate for absence of material and nonmaterial inputs by managerial sleights of hand.

Some suggestions to address the problems or variable factors identified in the study as to significantly contributing to low learning outcomes of females in GPS schools in Bangladesh are as follows:

Suggestions

Suggestions on Non Availability of Textbooks, and Physical Facilities

- Providing by the end of December, all teachers with abridged instructional guides and strategies for the first months of the year to help them deal with lack of textbooks.
- Involving the private sector in textbook printing and distribution to remove bottlenecks in the timely supply of textbook.
- Making some government funds available to schools to be used at their discretion for meeting urgent needs and monitoring the use of funds.

Suggestions on Curricular Design

- Conducting surveys to know the needs and concerns of students and guardians.
- Designing illustrations considering the following questions: Are they clear? Do they help the text? Are they appropriate to the literacy level of the learners? Do they supplement the texts? Are they attractive?
- Revising textbooks addressing the following questions: Is sex stereo-typing avoided in the content? Are women described positively?
- Incorporating skill development education to create incentives on the part of the parents to educate girls.
- Including examples of successful women in textbooks to encourage females to take on academic challenges and dream ambitious dreams.

Suggestions on Instructional Methods

- Using radio or television based programs to provide remedial instruction for GPS school students, covering the curriculum with greater innovative teaching methods than found in the average classrooms.
- Assigning one teacher on a rotating basis to stay after school to help children with homework
- Eliminating separate classes for subjects such as culture, art, and handwriting and incorporating these into core subjects
- Eliminating English classes in the early grades (as skilled teachers are not available).
- Providing more creative homework suggestions.

- Assessing the progress of students regularly.
- Using lesson plan
- Providing remedial and self-help materials to help students who get behind in their achievements.
- Providing innovative teacher manuals to help in managing a dynamic school classroom.
- Coaching classes for all students in the fifth grade as most will take the school-leaving exam. In addition, coaching classes for students who are falling behind.
- Establishing more teacher training institutes across the country. Providing adequate training to instructors.

Suggestions on Teacher Absence, Contact and Instructional Time

- Reducing casual leave and revising the leave policies for teachers to be consistent with contact hour requirements.
- Enforcing a system of incentives and penalties for teacher attendance and performance.
- Limiting the amounts of training a teacher can pursue, either as a trainer or trainee.
- Terminating government policy of taking teachers from the classroom to deal with non teaching duties.
- Providing adequate teachers to schools
- Appointing volunteer teachers. Community could intervene in providing financial support

- Schedule cluster in-service training for off-days or Thursdays (early closing day).
- Schedule other teacher training during vacations.
- Tying career advancement to performance.
- Enforcing the policy that teacher participation in training should be staggered.
Only one or two teachers from a school are in training at the same time.
- Establishing a substitute teacher corps, using retirees or secondary school graduates.
- In-service training of teachers can concentrate on more effective learning methods and assessment of student learning.
- Reducing the number of holidays.
- Keeping schools open and operational during local events or ceremonies.

Suggestions on Recruitment of Female Teachers

- Hiring female teachers from among the local community and assigning them duties in their own localities.
- Providing monthly refresher training to teachers as offered by BRAC
- Rewarding for good performance

Suggestions on Community Involvement

- Empowering community and parents to deal with schools and teacher attendance and performance problems. Increased accountability of the schools and teachers to the local community could reduce corruption at the local level.

- Providing information to parents and the community about performances of schools
- Restructuring the way School Management Committees (SMCs) and Parent-Teacher Associations (PTAs) are operating. Identifying appropriate members, establishing information dissemination systems, developing meeting schedules, and broadening the definition of their responsibilities and accountability.

Suggestions on Classroom and School Supervision and Accountability

- Training of head teachers in areas, such as, school management, administration, instructional supervision
- Increasing the capacity of field level officials in pedagogical supervision through training
- Ensuring regular presence of field level education officials in schools.
- Publicizing good and bad school performances.
- Rewarding schools for better performance.

Suggestions about Student time, Attendance

- Schools should open and operate on the official schedule or on a fixed schedule that the local environment and all stakeholders understand.
- Flexible school hours in rural areas may be arranged in discussions with the SMCs and PTAs to improve student attendance.
- Rewarding for regular school attendance
- Scholarships for academic success to encourage students to perform better.

- Expanding the Food for Education Program in Bangladesh and target those living in the poorest areas of the country. This program had been effective in increasing educational access and retention of poor children.
- Offering stipends and health services to encourage children of poor families.
- Providing learning materials to children in a timely manner and elimination of all cash costs to children from the poor families.
- Providing toilet facilities to improve educational access and retention of female students.

Recommendations for Further Research

- 1) The patterns of school spending and their effects on student achievement. Analysis of benefit incidence of public expenditures on education, across different income groups, and of gender differences in expenditure patterns on education. Analysis should suggest at both macro-and micro levels, factors which lead to increased investment in female education.
- 2) The link between education sector strategies and labor market conditions and policies.
- 3) Perceptions and expectations of the poor as well as of females about education and the education system.
- 4) Issues relating to sexuality, harassment, violence and female attendance and performance.
- 5) Assessment of the impact of the curriculum on girls' performance and what effects changing gender stereotypes has on performance outcomes.
- 6) Evaluation of effectiveness of education interventions Bangladesh, such as food for education, and stipend program.

7) Differential characteristics of schools, both formal and non-formal and the effects that these differences have on student achievements.

8) The effect of class size on student achievements in Bangladeshi schools.

Appendix A

Teacher Survey Questionnaire

School Code _____ Date _____

A. General information:

1.	Sex (circle one)	Male	Female
2.	Age (at last birthday)		
3.	What is your teacher qualification?		
4.	How many years have you worked as a teacher?		
5.	How many years have you worked at this school ?		
6.	What grade do you teach? (If applicable)		
7.	What subject(s) do you teach? (If applicable)		
8.	Are you married? (circle one)	Yes	No
9.	What is your spouse's occupation?		
10.	How many children do you have?		
11.	How many of your children are ten years old or younger?		
12.	Do you live in this community (where school is located)	Yes	No

B. Leave and Absenteeism:

1. Did you take any "leave" in the last academic year? Yes _____ No _____

2. If so, how many days did you take for different types of leave?

	Type of Leave	No. of days
a.	Medical (hospital, sick, quarantine)	
b.	Maternity	
c.	Disability	
d.	Earned leave	
e.	Vacation	
f.	Personal (Dept'l, casual, extra-ordinary)	
g.	Study	

h.	Retirement preparation
i.	Forced leave
j.	Leave without pay
k.	Unauthorized leave
l.	Public holiday
m.	Other
n.	TOTAL

3. Of the days that you missed, how many did you miss for the following reasons?

Reason		# of days
Illness		
a.	Illness	
b.	If so, female-specific illness or pregnancy	
Domestic Work		
c.	Child care	
d.	Care of sick relatives	
e.	Housework (cooking/cleaning/fetching wood or water, other)	
f.	Other	
Income-generating activities		
g.	Farming	
h.	Family business	
i.	Private tutoring	
j.	Work for employer	
k.	Other	
Transportation		
l.	Lack of transportation to school	
Events		
m.	Funerals, wedding, ceremonies, festivals	
n.	In-service teacher training programs	
o.	Official duties	
p.	Other (specify _____)	
q.	TOTAL	

4. Did you receive payment for all the days you were absent? Yes___ No___

5. For how many days did you not receive payment? _____

6. What are reasons you did not receive payment? (circle all that apply)

- a. Excessive leave
- b. Unauthorized leave
- c. Other_____

7. Thinking of the **past month**, how many days were you absent from school? _____

8. Were you absent for any of the following reasons? (mark all that apply)

Reason		No. of Days
a.	Illness	
b.	If so, female-specific illness or pregnancy	
c.	Child care	
d.	Care of sick relatives	
e.	Housework (cooking/cleaning/fetching wood or water, other)	
f.	Farming	
g.	Family business	
h.	Private tuition	
i.	Work for employer	
j.	Lack of transportation to school	
k.	Funerals, wedding, ceremonies, festivals	
l.	In-service teacher training programs (specify)	
m.	Official duties (specify)	
n.	Other (specify)	
p.	Total	

9. Have you ever been reprimanded or criticized for being absent? Yes _____
No _____

10. If so, by whom? (mark all that apply)

- a. Other teacher(s)
- b. Head-teacher
- c. SMC member
- d. AUPEO or UPEO
- e. Parent(s)
- f. Other (specify _____)

(For Female teachers only)

11. Have you ever taken pregnancy leave? Yes _____ No _____

12. If so, how often have you taken leave?

Dates	No. of Days

D. Teacher Work Day and Schedule:

1. How do you usually travel to work?
 - a. Private vehicle or motorcycle
 - b. Private Bicycle
 - c. Commercial transport (bus, boat, rickshaw, etc.)
 - d. Walk
 - e. Mixed
 - f. Other (specify _____)
2. How long does it take you to travel from your home to school and back, using your usual means of transport? _____ (in minutes)
3. What are your usual work hours for your job as a teacher (**including** travel time)?
 Start: _____ Finish: _____
4. What are your duties as a teacher and how much time do you spend in a **typical day** on them?

School-related duties		Time spent (minutes)
a.	Teaching students	
b.	Supervise play/recreational activities	
c.	Supervise service activities of students	
d.	Individual work with students	
e.	Grade exams/mark papers	
f.	Prepare lessons	
g.	Administration	
h.	School maintenance	
i.	Meet with individual parents	
j.	Assembly	
k.	Other (specify)	
l.	TOTAL minutes	

5. How many days in a **typical month** are you usually absent from school (not teaching) in order to undertake assigned school-related duties and for what reasons? (ask about each activity, mark all that apply)

School-related duties		Number of days
a.	Administration (e.g. stipends, collect books, etc)	
b.	Training	
c.	Other (specify)	

e.	TOTAL	
----	-------	--

6. Does your job as a teacher require that you work in the evenings, after school hours, or on holidays? Yes _____ No _____

7. If yes, what do you and how many hours do you spend per **typical month**? (ask about each activity, mark all that apply)

After-school teacher tasks Time spent (in hours)	
a.	SMC Meeting
b.	PTA Meeting
c.	Meet with parents
d.	Organize a celebration
e.	Attend community meeting or event
f.	In-service training or professional development
g.	Other (specify)
h.	TOTAL

8. What other duties – apart from your work as a teacher – are you asked to undertake by whom, how many days did you spend on them last year, and did they take place during the school day? (ask about each activity, mark all that apply)

	Non-school related duties	Request made by: Head Teacher, UEO	No. of days spent	Occurred during school day (Y/N)
A	Voter registration			
B	Elections			
C	Food for Edu.			
D	Stipend			
E	Vaccination			
F	Other (specify)			

9. Did any of the activities named above affect your work or duties as a teacher? Yes _____ No _____

10. If yes, explain how. (mark all that apply)

- a. Made me late for school
- b. Made me leave school early
- c. Required that I miss the entire school day
- d. Made me too tired to attend school
- e. Other (specify _____)

11. **Last year**, did you receive any training or professional development (such as in-service workshops, Primary Teacher Training Certificate in Education course, bi-monthly refresher courses? Yes__ No__

12. If yes, what were the courses and how many **partial or whole days** of school did you miss **last year**? (mark all that apply)

	Type of training	No. of partial or entire days missed
A	In-service workshops	
B	Certificate Training	
C	Refresher Training	
D	Other	
	Total	

13. Thinking about the last professional training you received, did you have to miss any school days? Yes_____ No_____

14. If yes, how many whole or partial days of school did you miss? _____

E. Teaching Load

1. Thinking of last year, were you able to completely (i.e. cover the whole book) cover all the subjects in the curriculum that you are responsible? Yes__ No__

2. If not, what was the primary reason you could not? (circle one)

- a. Not enough time
- b. Too many subjects
- c. Not trained in subjects
- d. Late arrival of books or materials
- e. No enough books or material
- f. Natural disasters (e.g. flood)
- g. Slow students
- h. Other (specify_____)

3. What do you do if you can not cover the subjects adequately? (open)

4. What do you suggest could be done to ensure that you cover the curriculum completely? (open)

5. What do you think are the major advantages and disadvantages of double shifts for you and for the students?

Advantages	Disadvantages
A	D
B	E
C	F

6. Have you received any guidance or instruction on how to deal with double-shift schools and the challenges or disadvantages they present? Yes _____
No _____

7. If so, what were they? (open)

8. Have you received any guidance or instruction on how to deal with large class sizes and the challenges or disadvantages they present? Yes _____ No _____

9. If so, what were they? (open)

F. Other Income-generating Activities

1. In addition to your salary as a teacher, have you earned money from other activities or jobs?

Yes _____ No _____

2. If yes, how often do you earn extra money?

- a. At least once a week
- b. At least once a month
- c. At least once a year

3. If yes, how have you earned extra money? (circle all that apply)

- a. Tutoring students
- b. Farming
- c. Self owned business (specify _____)
- d. Work for employer (specify _____)
- e. Other (specify _____)

4. If you tutored students, how many hours did you spend on average per month last year?

_____ hours

5. How many students did you tutor last year? _____ students

6. Did the students you tutored include? (mark all that apply)

- a. Students that you teach in school
- b. Students from the school where you teach (but not your student)
- c. Students from other primary schools
- d. Other (specify _____)

7. In this community, how much does a student typically pay (in cash or kind) for tutoring?

		Amount	Per (month or hour)
a.	Lower Primary Student		
b.	Upper Primary Student		
c.	Other		

G. Teacher-Community Interaction

1. Thinking of the community where the school you teach at is located, do you attend any of the following and how often in the past month?

Community Interaction	No. of times in past month
SMC Meeting	
PTA Meeting	
Meet with parents	
Attend community ceremony or celebration	
Attend community meeting or event	
Community service	
Other	
TOTAL	

H. Job Satisfaction

1. If you could choose any other profession, would you still choose to be a primary school teacher?

2. If no, why not? (open)

Appendix B

Student Survey Questionnaire

School Code _____

Date _____

A. General Information

1. Basic Identification of the student/respondent (insert number)

Residence Urban = 1 Rural = 2	School Code 1,2	School Shift =1,2	Grade (1-5)	Sex M=1 F=2

2. Name of the Student

3. Father's Occupation:

4. Mother's Occupation:

5. Household Socio-economic Status/Wealth Ranking Score (1-100)

6. Home/Residence Address:

B. Travel Information

1. How do you usually get to school?

- a) Private vehicle;
- b) Bicycle;
- c) Commercial Transport;
- d) Walking;
- e) Others (specify)

2. How long does it take you to travel from your home to school (in minutes), using your usual means of transport?

C. Absenteeism (ascertain from head-teacher how many days the school was in session last week)

1. In the last week were you absent from school? Yes_____ No_____

2. If you were absent, how many days did you miss? _____

3. In the last week, why did you miss school?

- a) Was ill

- b) Cared for sick relatives
- c) Helped parents/family with household, farm or commercial work
- d) Worked for an employer to earn money
- e) Played and had fun
- f) Attended an event
- g) Did not have the money required for school expenses (fees, travel, material, and clothes)
- h) Travel was too difficult (bad weather conditions, lack of transport)
- i) Other (Specify _____)

4. What generally happened after you are absent? (circle all that apply)

- a) Don't understand the lesson as well as the others
- b) Teacher is displeases (Ask how the child knows _____)
- c) Teacher asks why I was absent
- d) Someone from the school talks to my parents/guardians
- e) A notice/letter is sent to my family
- f) Nothing
- g) Other (Specify _____)

D. Tardiness/Early Departure

1. Are you ever late for school? Yes _____ No _____

2. If so, in the last week, how many days were you late for school? _____ days

3. What were the reasons you were late for school?

- a) Household work/domestic obligations;
- b) Working outside home/for an employer;
- c) Caring for sick relatives;
- d) Caring for siblings;
- e) Long travel distance/transport problem;
- f) Physical illness;
- g) Bad weather;
- h) Other (Specify _____)

4. Do you even leave early from school? Yes _____ No _____

5. If so, last week, how many days did you leave early from school? _____ days

6. What were the reasons you left school early?

- a) Household work/domestic obligations;
- b) Working outside home/for an employer;
- c) Caring for sick relatives;

- d) Caring for siblings;
- e) Long travel distance/transport problem;
- f) Physical illness;
- g) Bad weather;
- h) Other (Specify _____)

E. Seasonal Variation

1. Is there any time of the school year that you are often absent from school?
 Yes___ No___

2. If yes, when are you most often absent? (select 3)

- a) Monsoon/Harvest period/Planting period;
- b) Local/National Election;
- c) Local Festival;
- d) Ramadan;
- e) Beginning of academic year;
- f) Other (Specify_____)

3. When did you actually start class this year? (circle one)

January February March

4. What happens to class hours/routines during the start of the school year (Jan-Feb)?

- a) No class, only attendance;
- b) Some classes;
- c) Full classes;
- d) School completely closed;
- e) Teachers are busy with book collection and distribution;
- f) Other (Specify_____)

F. On Teachers' Attendance

1. To what extent are your teachers late generally?

- a) Never
- b) Sometimes
- c) Often
- d) Most often

2. What happens in your class when the teachers are absent? (up to three)

- a) Substitute assistant teacher comes
- b) Head teacher comes
- c) No class, only playing/singing/gossiping
- d) Studying/preparing school work
- e) Stay idle
- f) School work: gardening or cleaning
- g) Other (Specify _____)

3. To what extent are your teachers late generally?

- a) Never
- b) Sometimes
- c) Often
- d) Most often

4. What happens in your class when the teacher is late?

- a) No class, only playing/singing/gossiping
- b) Studying/preparing school work
- c) Stay idle
- d) School work: gardening or cleaning
- e) Other (Specify _____)

5. To what extent do your teachers leave school early?

- a) Never
- b) Sometimes
- c) Often
- d) Most often

6. To what extent do your teachers leave class early?

- a) Never
- b) Sometimes
- c) Often
- d) Most often

7. What happens in your class when the teacher leaves early?

- a) No class, only playing/singing/gossiping
- b) Studying/preparing school work
- c) Stay idle
- d) School work: gardening or cleaning
- e) Other (Specify _____)

G. Student's Free Time, Tutors, and Homework

1. Do you have or use a private tutor? If yes, answer the following.

	Class teacher	School teacher	Others: specify
Average No. of Hours Weekly			

2. Why do you need a tutor?

- a) To cover school lessons/curriculum
- b) To get better results
- c) Teachers are not sincere or careful
- d) Too many students in class;
- e) Too many students in class; teachers can't attend every one
- f) Long absence due to sickness
- g) Do not understand the lesson
- h) Other (Specify _____)

3. Do you do homework? Yes_____ No_____

4. If yes, how many hours per week? _____ hours

5. Who has more free time to play or relax - boys or girls?

- a) Boys
- b) Girls
- c) Equal

6. If boys, why to boys have less free time? (Specify_____)

7. If girls, why to girls have less free time? (Specify_____)

8. What do you do when you relax? (Specify_____)

H. Student Hunger

1. Did you have anything to eat before you came to school today? Yes___ No___

2. Are you ever too hungry to pay attention in class? Yes___ No_____

3. Do you like coming to school? Yes_____ No_____

4. Why? (Specify _____)

Appendix C

Head Teacher Questionnaires

School Name/ID :

Name of the Respondents:

1. Basic Profile of the School

Items	Total	M	F	Note
Year of Establishment				
No. of Teachers				
No. of Students				
No. of Classrooms				
Made of				
Toilets				
Tube wells				
Distance from District/UZ HQ				
Electricity				
Record Keeping				
Under any project (stipend etc.)				
Others				

2. Student Attendance Information

	No. of students enrolled No of students present				
	Grade I	Grade II	Grade III	Grade IV	Grade V
Urban GPS					
Urban RNGPS					
Rural GPS					
Rural RNGPS					

BRAC # 5					
BRAC # 6					

3. Of the number of students in grade 5 last year, how many sat for the scholarship exam?
4. Of those who sat for the scholarship exam how many succeeded? _____

Appendix D

Head Teacher Interview Guide

1. What is your educational background and experience?
2. What are some of the high points of your career?
3. What skills as a classroom teacher or other school/district position of responsibility have you developed that can be helpful to you as a head teacher?
4. What skills in non-education positions have you developed that can be helpful to you as a head teacher?
5. List four adjectives you would use to describe your idea of an ideal head teacher.
6. What do you believe to be the head teacher's role in school management?
7. Describe your involvement in the school process.
8. From your experience, what factors most determine the decisions a head teacher makes?
9. What are some of your experiences with collaborative decisions?
10. What kind of experiences (school settings, training, interaction, exposures, etc.) would help you become the type of head teacher you want to be?
11. How are parents involved in the school projects?

12. How would you like to be described by your teachers?
13. What are your roles and responsibilities in the school?
14. What is your general impression about the school time (calendar, schedule, shift, and holidays)? To you, what are the certain things that reduce school time significantly?
15. How can the use of time be increased? Recommend.
16. Comment on the pattern of teachers' use of time (absenteeism and tardiness/leave early). Have you ever discussed teachers' absenteeism, tardiness, and early departure?
17. What disciplinary actions have the SMC and you taken for irregularities and indisciplinary activities of teachers? To what extent? Describe the process.
18. What are your opinions about the DPE officials and their capacity to monitor school related issues, particularly time?
19. Can you put forward some overall recommendations for the SMCs role in overcoming problems related to time use?.
20. Do you have any role in planning or monitoring and evaluating the school calendar?
21. Do you have a role in planning unscheduled closing of schools; locally determined holidays; and rules, provisions, and authority?
22. Do you have a role in the quality of teaching (art and ability)? Teaching methods, systems and curriculum?
23. Do you have a role in interaction with local people, guardians, and PTA?
24. What measure do you take when students are absent, irregular, or not attentive in class?
25. How are the classes of absent teachers managed?

26. Do you have discretionary power in granting leave to teachers; suspending class; closing school; rescheduling classes, calendar, curriculum and other rules and regulations that may have an impact on time use?
27. To whom are you responsible and how?
28. What are the non-academic duties and responsibilities (e.g. child census, election duty, textbooks, stipend programs) of head and assistant teachers that affect class hours?
29. To what extent do teacher trainings, meetings, contacting DPE offices, attending and celebrating government programs (education week), etc. reduce effective time of school and classes?
30. What are merits and demerits in the context of time use?
31. What are incentive structures, salaries and other benefits?
32. Beyond school, what is the time use pattern beyond school (private tutoring, non-teaching activities, income generating, etc.)?
33. What makes it difficult to manage effective use of school time from the perspectives of teachers, students, parents, infrastructure and logistics, etc.?
34. Put forward some recommendations in overcoming the problems related to time use?
35. What you can do yourself within the given framework (resource, infra, staffing etc.) to improve the situation?

Other Specific Issues:

36. Textbooks: Is there any problem of textbooks reaching in delay? If so, what's the magnitude of the delay? What is being attempted or done to get rid of the problem?

37. Teacher's Absence: To what extent is this problem in your school? Are there any particular actions taken for this problem?
38. Students' Absenteeism: To what degree is this a problem in your school? To what extent are you aware of the reasons of their absence?
39. Stipends: To what extent is the stipend system helpful to provide incentives for the children to get attached to their studies?
40. Funds: How do you carry out procedures for bringing funds to school? Do you face problems in this regard?
41. School Information: Are you satisfied with the infrastructures of your school? What are the problems with the school infrastructure in your view? What are the measures taken against these problems?
42. Teachers' Employment: Do you face any sort of local influence in employing teachers?
43. Other Duties: To what extent do teachers having other duties hamper the academic procedures of the school? What are these different duties? Who most commonly assigns these duties to teachers? What are the duties that you are authorized to assign a teacher?
44. Salaries and Other Benefits: Do you think teachers' salaries are insufficient? If it is insufficient, do you think they should have other income-generating activities outside school? What measures could be taken to resolve this problem?
45. Additional Care for Students: Do you have any programs to take care of the problems of student who fall behind?
46. Emergency Shutdown of School: Do you need to keep school closed very often for local festivals or community meeting? If so, are you forced to do so? By whom?

47. In-service Training Activities: Do in-service training programs have an impact on the time schedules of schools? Do you take any of these trainings?

48. In Case of Your Absence: Who takes the responsibility when you are not present?

Appendix E

Interview Guide: SMC Member

1. How does the school management committee function?
2. How are decisions made in school?
3. Who are the persons consulted in decision making?
4. Can you tell me something about the school-community's relationships?
5. What connections do you see between this school and yourself?
6. To what extent are parents and community people used as volunteers and resources for the school?
7. How are decisions made in this school about staffing, curriculum, mission, goals, and budget allocations?
8. To what extent is the head teacher open to input from others in making important decisions about the school?
9. How does this school deal with students who are at risk of academic failure?
10. Does the school have a set of goals that has been established and agreed to by all parties?
11. In general, what are your roles and responsibilities in managing the schools? How does the SMC work?

12. What is your general impression about the school calendar, schedule, holidays? Is there anything specifically that reduce school time?
13. How can the amount of contact time be increased?
14. Comment on the pattern of teachers' use of time (absenteeism, tardiness, early departure). Have you ever discussed these issues in the SMC or elsewhere?
15. What, if any, disciplinary action has the SMC taken for irregularities in teacher attendance?
16. What is the SMC's relation with the local education authorities? Are they effective supervisors of the school?
17. What can the SMC do to overcome some of the problems of time use and contact time?
18. Does the SMC play any role in setting the school calendar or schedule? Is it consulted when the school is going to close?
19. What is your impression about the quality of the school?
20. What other things might effect the use of teacher and student time in and outside of school?

Appendix F (I)

Interview Guide: Focus Group Discussion with Parents/Guardians

Broad Issues:

1. What is your general impression about the school time (calendar schedule, shifts, and holidays).

2. How can instruction time be increased? What are your recommendations?
3. Comment on the pattern of teachers' use of time (absenteeism, tardiness, leave early).
4. Is there anything that makes it sometimes very difficult to send your children to school? If so, what are the major factors?
5. What can be done to make more or better use of time? What do you recommend?
6. What can you do yourself to improve the situation?

Specific Issues:

7. Non-academic duties of the teachers: what do they do?
8. Parent role in school management, community participation in decision-making about the school.
9. Have you ever discussed or complained about teacher absenteeism, tardiness or early departure?
10. Have the teachers ever discussed your child's attendance or performance with you?
11. Have you played any role in setting or monitoring the school calendar or schedule?
12. What would suggest for any change in the school calendar or schedule?
13. Do you think that the monitoring by the education authorities is effective?
14. Are you satisfied with the quality of teaching in this school?
15. What are the incentives for student attendance?
16. Are there ever any unscheduled closings of the school?
17. Do you use a private tutor for your child?
18. How much time does your child spend on homework?

19. Tell us about how your child spends his/her time out of school? (free time, recreation, household work, income-generating activities)
20. What family obligations affect the child's attendance?
21. What school requirements affect the child's attendance?
22. Do you meet teachers to learn about academic progress of children?
23. What kind of school related expenditure you need to meet?
24. Do you want your daughter to continue with education? If so, why?
25. What is your career preference for your daughter?
26. How are parents involved in the school activities?
27. How active is the parent organization in this school in its activities to support education?
28. What does this school do to encourage students to do their best work?
29. What factors can improve girls' learning opportunity?
30. Do you prefer female teachers in school ?

Appendix F (II)

Interview Guide: Focus Group Discussion with Teachers

1. What are the biggest obstacles to the amount of contact time provided and managing time effectively in school?
2. What can be done to improve the situation?
3. What can you do to improve the situation?
4. Are there sufficient teachers in your school? How do you deal with teacher shortages?

5. What duties take your time? Do you have non-school duties?
6. What are the rules governing teacher holidays, absenteeism, leave?
7. When do you get extra training? Do you miss school?
8. What are advantages and disadvantages of double shifts?
9. Where do you live? How long does it take to make the trip to school?
10. Who and on what basis decides when the school closes?
11. What happens when teachers are absent? How do the teachers who are present deal with it?
12. Do you or other teachers in this school do any private tutoring?
13. What do you do after school? Do you have another job or business?

Appendix G

Class Observation Form and Checklist

<i>School Code:</i>		
<i>School Type:</i>		
<i>Grade:</i>		
<i>Class:</i>		
<i>Time:</i>	<i>The teacher is....</i>	<i>Most students are...</i>

School Code _____ Shift AM or PM

Date _____

Observed Items:

Teacher arrival time.

Ascertain with students on which lesson they will be working.

Note activities even if teacher has not yet arrived.

Note and describe each teacher activity and time it begins.

Note what the majority of students are doing according to each teacher activity.

Content and pedagogical knowledge of the teacher,

Teachers' preparation,
Lesson presentation,
Use of teaching aids
Classroom management
Slow learners' management
Homework management
Co-curricular activities.

CLASSROOM OBSERVATION CHECKLIST

1. Teacher sets up the classroom ahead of time
2. Teacher gets the attention of students immediately entering the classroom
3. Using a lesson plan or telling students why the topic is being studied and how it is important to them.
4. Teacher tries to get students involved in a discussion
5. Asking students for their own opinions during the lesson
6. Teacher tries to get students to think beyond an answer by asking follow-up questions
7. Explaining carefully if a student does not understand something
8. Teacher using teaching aids such as pictures and objects during the lesson
9. Whether chalkboard writings are legible and clearly seen from backbench
10. Giving incorrect explanation of concepts or mispronunciation of words
11. Existence of group task
12. Scope for child to child interaction or peer learning
13. Whether homework assignments are corrected by teachers
14. Teacher succeeds in keeping their students occupied in learning activities throughout the class period

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