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BRAC Research Report

September 2008

## An Evaluation of BRAC Pre-primary Education Programme

Mirja Mohammad Shahjamal  
Samir Ranjan Nath

# **An Evaluation of BRAC Pre-primary Education Programme**

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**September 2008**

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## ACRONYMS

AM	Area Manager
BBS	Bangladesh Bureau of Statistics
BDT	Bangladesh Taka
BEP	BRAC Education Programme
BM	Branch Manager
BPP	BRAC Pre-primary
BPPS	BRAC Pre-primary school
BRAC	Bangladesh Rural Advancement Committee
ECCE	Early childhood Care and Education
EFA	Education For All
GPP	Government Partnership Programme
GPS	Government Primary School
IQ	Intelligence Quotient
NGO	Non-government Organizations
NPP	Non- Pre-primary
OECD	Organization for Economic Co-operation and Development
PO	Programme Organizer
PP	Pre-primary
PSC	Poverty Score Card
RA	Research Assistant
RED	Research and Evaluation Division
RM	Regional Manager
RNGPS	Registered Non-government Primary School
SMC	School Managing Committee
SSC	Secondary School Certificate
TSC	Tutoring Support Centre
UK	United Kingdoms
UNESCO	United Nations Educational, Scientific and Cultural Organization

## **ABSTRACT**

BRAC operates over 20,000 pre-primary education centres in the areas of formal primary schools. It is a one year long course and in each centre recruits 25 to 30 pupils. The aim of this study was to evaluate the ongoing practices of BRAC pre-primary education programme adopting both qualitative and quantitative research approaches. The findings section has four distinct parts, viz., review of pre-primary curricula, implementation of the curricula, socioeconomic background of pupils, and performance of PP graduates comparable to non-PP students. All areas have identified some interesting findings and concerns. BEP policy and regulations regarding teachers' recruitment somehow went against BRAC philosophy related to promotion of women. Children's from poorer communities were left out of the programme due to the nature of collaboration between government and BRAC. There is strong argument regarding rethinking of curriculum, textbooks, teacher preparation, etc. In addition to noticing the major concerns regarding the programme, some suggestions were made for its improvement

## CHAPTER 1

### INTRODUCTION

History of educating people is as old as the history of human civilization. Introduction of education in human life was initiated in an informal way. For instance, in South Asia, it was inaugurated for the children through a process called *Guru-Shiksha*, placed in *Gurugriho*. In course of time, the process of educating children has changed a lot based on the demands of the society. Education has been proven as vital for socioeconomic development. This motivated the education implementers to adopt structured schooling system. However, as a result of over emphasis on it, pessimistic impact like ‘diploma diseases’ has occurred, which was not possible to ignore by many (Ronaldo 2003; Little and Ronaldo 2006).

Compared to the three levels of education, viz., primary, secondary and tertiary, pre-primary is new. Adherents of pre-primary schooling believe that effects such as cognitive, linguistic, school readiness, motor and other skills have been resulted through pre-primary schooling. The opponents of pre-primary schooling believe that it caused discrimination in favour of the privileged group (Moore *et al.* 2008). At the beginning, pre-primary was centred among the privileged groups as an informal provision. Later, this has been introduced in the formal schooling system where the clients were also from the privileged groups. To create an equal opportunity, non-government organizations (NGOs) have started offering pre-primary education for the underprivileged groups in many developing countries (UNESCO 2007).

BRAC, the largest NGO in the world, committed to the development of the poor especially the women and girls, has long experience in non-formal primary education. It also provides pre-primary education. This research aims to evaluate the pre-primary education programme of BRAC.

### GLOBAL PERSPECTIVE OF PRE-PRIMARY EDUCATION

Many children aged <5 years, particularly in developing countries, are exposed to multiple risks comprising poverty, malnutrition, poor health and de-motivating home environment, which drastically affect their cognitive, motor and socio-emotional development (Grantham-McGregor *et al.* 2007). However, these early years of life are particularly important regarding development of all domains. Rapid development of brain and other parts of body occurs at this stage. The extent of development decreases over the period (Shonkoff and Phillips 2000). Though the early years are important for the children, many of them, particularly from the poorer countries cannot grow up with full potential because of poverty and lack of other opportunities. These children miss some obvious components of development (Anonymous 2006). Steps have been taken to provide some skills to the deprived children so that they can fulfil the gap. Early Childhood Care and Education (ECCE) is one of the important programmes through which the neglected children are nurtured for smooth development. As a part of ECCE, pre-school education is provided to bring the children to school smoothly with school readiness skills. The underlying concept of pre-school education is to provide some missing components to the children before engaging in primary schools (Anonymous 2006).

Although the necessity of pre-primary education has been felt by countries, it received less importance compared to primary education. The EFA (Education for All) Conference of 1990, the largest jamboree of education, did not pay proper attention to pre-primary education. However, the world community has paid attention on this in the World Education Forum, held

in Dakar in 2000. In that conference, the world leaders evaluated the progress of achieving EFA targets and formulated some new goals for the countries which would be achieved by 2015 (UNESCO 2000). Out of the six goals, the first one was about pre-primary education. The goal was, “Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children” (UNESCO 2000). It has stated that the situation of early childhood care and education should be improved comprehensively for the vulnerable and disadvantaged children. We can understand that the vulnerable and disadvantaged children lack the opportunities for developing their potentials. Because of such lacking, development of the children does not occur to the same level as it occurs for the advantaged children. Thus, pre-primary education is provided as compensation to the disadvantaged children so that they can keep pace with the advantaged children during schooling.

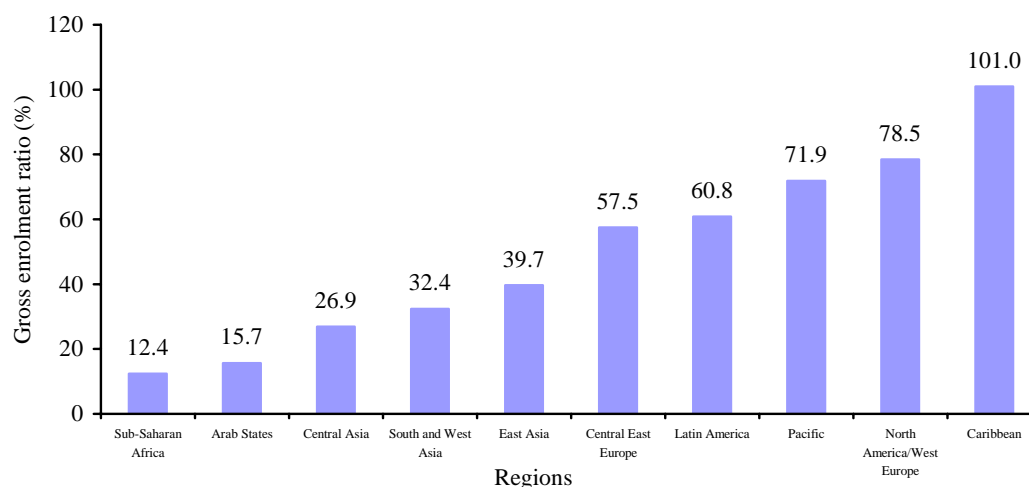
The developed world has sufficient arrangements for pre-primary education. Most OECD (organization for economic co-operation and development) countries have at least two years of free pre-primary education (UNESCO 2007). Worldwide, the gross enrolment ratio in pre-primary education has tripled since 1970s. Almost 124 million children were enrolled in pre-primary education in 2004, which was 10.7% increase over 1999 (UNESCO 2007). However, this increase did not occur equally through out the world. For instance, pronounced increase was happened in Sub-Saharan Africa (43.5%), the Caribbean (43.4) and South and West Asia (40.5%) compared to Arab States (11.4%). Box 1 provides global scenario of pre-primary education in brief.

**Box 1. Present situation of pre-primary education in the world**

- Enrolment in pre-primary education has tripled since 1970, though coverage remains very low in major parts of the developing world.
  - Most OECD countries have at least two years of free pre-primary education.
  - Among developing regions, Latin America, the Caribbean, and the Pacific have the highest pre-primary gross enrolment ratios; far behind come East Asia, South and West Asia, the Arab States and sub-Saharan Africa.
  - Most regions are near to gender parity in pre-primary education.
- Source: UNESCO (2007)*

Figure 1 shows a big difference in gross enrolment ratios in pre-primary education in different regions of the world. The ratio is only 12.4% in Sub-Saharan Africa compared to 101% in Caribbean countries. The enrolment ratio is below 40% in Asian and African countries and above 50% in European, American and Caribbean countries. It seems that there is an adverse relationship between poverty and enrolment in pre-primary education. In the poor countries, where the children are underserved due to lack of nutritional and other facilities, the provision of pre-primary education is insufficient. On the other hand, the children of well-off countries receive both nutritional and other facilities as well as pre-primary education.

**Figure 1. Gross enrolment ratios in pre-primary education in different regions of the world, 2004**



### **PRE-PRIMARY EDUCATION IN BANGLADESH**

Pre-primary education did not get priority as it received for primary education to the world community. Situation in Bangladesh is not different than this. Bangladesh, like many other countries, has made primary education compulsory but not pre-primary. The ministry of education, in its website, claimed that Bangladesh education has three stages - primary, secondary and higher education; there is no mention of pre-primary (MoE 2008). Since pre-primary is not considered as a stage of education in Bangladesh, none of the two ministries of education<sup>1</sup> is responsible to oversee pre-primary education in Bangladesh. In Bangladesh, household level national surveys revealed that the net enrolment rate at primary level is nearly 87% but the rate is only 13.5% for pre-primary (Nath and Sylva 2007).

Nath and Sylva (2007) found three major provisions of pre-primary education in Bangladesh; these are baby classes in formal primary schools, pre-school programmes in kindergartens and English-medium schools and BRAC pre-primary schools. The first two provisions follow formal or non-formal mode recognised by the ministries of education. However, English-medium pre-primary schools are meeting the requirements of the privileged portion of the society and these schools follow the curriculum of western world; mainly from the UK. Besides, pre-primary education is offered by two other ministries viz., ministry of women and children affairs and ministry of religious affairs. For instance, the ministry of religious affairs alone run 18,000 mosque-based pre-primary centres all over the country (Ministry of Religious Affairs, 2008). The ministry of women and children affairs has made an effort to mobilize actors across different sectors in the government and non-government sectors to implement the integrated pre-primary education of Bangladesh Shishu Academy for children aged 4 to 5 years (UNESCO 2007). A general perception is that providing education is the purview of the ministries of education, thus, the pre-primary activities of the other ministries are not that much highlighted. The later two ministries provide pre-primary education under early childhood care and development programmes.

Although there is no official provision of pre-primary education in Bangladesh, the government and non-government primary schools, the madrasas and the high-school-attached

<sup>1</sup> There are two ministries in Bangladesh responsible for education – Ministry of Education looks after the Secondary and Tertiary Education while Ministry of Primary and Mass Education is responsible for primary and Basic Education.

primary sections have baby classes prior to class I (popularly known as Junior I or *choto one*). About 45% of the formal schools have this provision for which no extra teacher is provided. There is no textbook or teacher guide for this. However, they often use the language textbook recommended for grade I (Nath and Sylva 2007). The kindergartens and English-medium schools operate pre-school programmes more seriously compared to the above mentioned baby classes. About 86% of these schools have this programme, most of which follow 1 to 2 years course using the locally developed textbooks. However, some of the kindergartens and English-medium schools use internationally published textbooks. In absence of national curriculum, a great variation in pre-primary curriculum and textbook and the length of course occurs among various providers. BRAC pre-primary programme operates a one-year course using three self-prepared textbooks and one teacher guide. The schools are situated either at the premises of primary schools (government or registered non-government) or away from the school premises.

Using *Education Watch* database, Nath and Sylva (2007) analysed trends in pre-school enrolment in Bangladesh. Of the children aged 4 to 5 years, the net enrolment rate was 9.3% in 1998 and 9.6% in 2000, which significantly increased to 13.4% in 2005. The official age for primary schooling is six years in Bangladesh but a significant number of children aged below six enrolled in primary schools – 18.2% in 1998, 16.7% in 2000 and 15.5% in 2005. One possible reason behind this might be the absence of pre-primary provision within reach. The primary schools do not strictly follow the rule of the entry age. A good portion of the pre-primary students are over aged (6+ years) - 12.6% in 1998 and 2000 and 17.1% in 2005. This made the gross enrolment ratio in pre-primary classes as high as about 22% in 1998-2000 and over 30% in 2005. Children of the well-off families and educated parents were more likely to enrol in pre-primary classes compared to the poorer section of the society (Nath and Sylva 2007).

## **BRAC PRE-PRIMARY EDUCATION PROGRAMME**

BRAC has long and diverse experience in the field of education. It started functional literacy programme in mid 1970's and non-formal primary education programme in 1985. With more than 50000 schools (including pre-primary and primary schools), BRAC's non-formal primary education programme is considered as the largest NGO-operated education programme in the world. It also works with the formal primary and secondary schools.

### **Experiment, experience and start**

BRAC experimented pre-primary education first in 1985. Of the 22 schools, opened for the first time as BRAC school, two were pre-primary and 20 were non-formal primary. After one year of inception, the pre-primary schools turned into primary schools. BRAC again opened four new pre-primary schools in 1986. These schools also turned into primary schools after completion of one-year pre-primary course (Ahmed, 1988).

Experimentation with pre-primary did not end with the above activities. In 1989, BRAC opened 10 pre-primary schools. Twenty graduates of non-formal primary schools were selected as teachers of these 10 pre-primary schools, two teachers in each of the school. These young teachers, at that time, were the students of grade V or VI in nearby formal schools.

The following year is remarkable for the grand Jomtien Conference. Talks had been going on everywhere in the world to ensure primary and basic education for all children. Governments and international communities started planning and making laws for implementing primary education. Pre-primary education did not get attention at the Jomtien Conference. In 1990, just before the Conference, Bangladesh made a law to make primary education compulsory for a certain age group (6-10 years). The law did not include pre-

primary. Over emphasize on primary education by the government as well as the development partners may cause behind changing BRAC's focus point from pre-primary to primary education. BRAC's experience in operating pre-primary classes was also lesser than that of primary schools might be another reason of changing the spotlight. BRAC concentrated itself in expanding primary education provision in the comparatively hard-to-reach areas of the country.

In 1997, BRAC started experimenting pre-primary schools for the third time with 40 schools. Following factors influenced BRAC to begin pre-primary schools again at that time:

- Firstly, the change in government policy. In the National Plan of Action for Children, the government planned to operate a baby class in the existing primary schools (Ministry of Primary and Mass Education, 2003). BRAC considered it as a favourable atmosphere at the highest level of the government.
- Secondly, by 1997 BRAC already gained experience for more than a decade in operating non-formal primary schools and it was much confident to add new dimensions to its education programme.
- Thirdly, BRAC was trying to create some job opportunities for the non-formal school graduates. It was thought that appointing them as the teachers of pre-primary schools may meet that demand.

Before initiating pre-primary education programme with a full swing, BRAC experimented a number of issues on a trial and error basis from 1997 to 2001. The experiment included following questions to be answered.

1. Who should be the prospective teachers for pre-primary classes?
2. Which section of the children should be served by the programme in terms of age and social stratification?
3. What is the future prospect of such programme?
4. What are the strategies need to be taken for pre-primary programme.

At the beginning of this experiment, BRAC appointed female graduates of BRAC non-formal primary schools who at the same time were the students of the formal secondary schools (classes VII-IX). The teachers worked as a volunteer and no remuneration was provided to them. After one year, it was understood that one teacher is inadequate to manage the students. The concept of two teachers came in to concentrate more on students' learning. Although the teachers were better able to handle the pupils' problems, it was found that conceptual and developmental aspects of the students were not reaching to the satisfactory level that BRAC wanted. The lead BRAC to consider a bit higher educated women as teachers instead of BRAC school graduates. At some point of such experiment (1998-99), BRAC charged tuition fees to the students. The fees varied from Tk. 5 to 20 per month. The money was spent for teachers' salary. This caused behind dropout of poorer children from BRAC pre-primary classes. For that reason, BRAC abolished the provision of tuition fees.

Although the government was intending to start baby class in all the formal schools, it was not possible due to lack of adequate classrooms and teachers in majority of the schools. At this circumstance, BRAC sought permission from the government to expand its pre-primary programme. In 2001, the government gave permission to BRAC to open pre-primary schools at the premises of government and registered non-government primary schools (GPS and RNGPS). Government imposed a condition to enjoy the permission. According to that

condition, all pre-primary completers must be admitted in the respective formal schools. After such consent from the government, BRAC went for massive expansion of pre-primary education programme.

### **Current programme status**

The main objective of BRAC pre-primary education programme is to provide educational support to the underprivileged children who were unable to develop some essential skills like cognitive, motor, language, and school readiness, because of low or no education of their parents and poverty (BRAC 2006). The underlying philosophy is that with the skills provided through BRAC programme, these children will be better able to get admission in primary schools, they will be better able to compete with their classmates and ultimately show better classroom performance. BRAC hopes that pre-primary education will contribute in increasing enrolment, attendance and completion rates at primary level.

BRAC pre-primary schools (BPPS) are established in the catchment areas of two types of formal primary schools, viz., government and registered non-government primary schools. In each catchment area, generally, two pre-primary schools are established – one preferably in the formal school premise and the other outside. These are one-room schools with a female teacher. If classroom is available in the formal school, one room is used for pre-primary class. In case of absent of such facility BRAC provides financial support to the school to build a room at its premise. Pre-primary school room outside the formal school may be a rented one or built with financial support of BRAC. Distance between the two pre-primary schools under a catchment area of a formal school is not more than half a kilometre. As mentioned in the project proposal, 26-30 poor and disadvantaged children aged 5-6 years are selected for pre-primary through survey (BRAC 2006). Of the pupils admitted, at least 60% are girls. Duration of the course is one-year. Holistic development is emphasised through a joyful and child-friendly environment and prepare them for formal primary schooling (BRAC 2006). The pre-primary schools prepare young children to enter into grade I in the formal system by sparkling an interest in learning and by developing the social, cognitive, language and motor skills of the children. This one year course is held 2 hours a day and 6 days a week. The teachers have at least nine years of education. All pre-primary graduates take admission to the nearer primary schools.

Three textbooks and a teacher guide play substantial role in the curriculum of BRAC pre-primary schools. The books are *Borner mela* (collection of alphabets), *Chobi dekhe shikhi* (learning through observing pictures) and *Shonkhar mela* (collection of numbers). The curriculum specialists of BEP developed the textbooks. The course contents of these books are composed in the teachers guide. The contents are divided into 150 lessons in the teachers guide. After completing each of the 15 lessons, the teacher administers a test to the students. There is a guide for administering test and a format of the test has been incorporated in the guide. The teachers conduct 10 such tests in one year cycle.

The BPPS teachers are local women. The teachers are provided with six days basic training before recruitment and three days orientation training after appointment. A one-day refresher training is provided to the teachers in each month. In refresher training, practical ways of teaching the contents is taught to the teachers. The teachers conduct the teaching-learning in the classrooms following the directions received during refresher training.

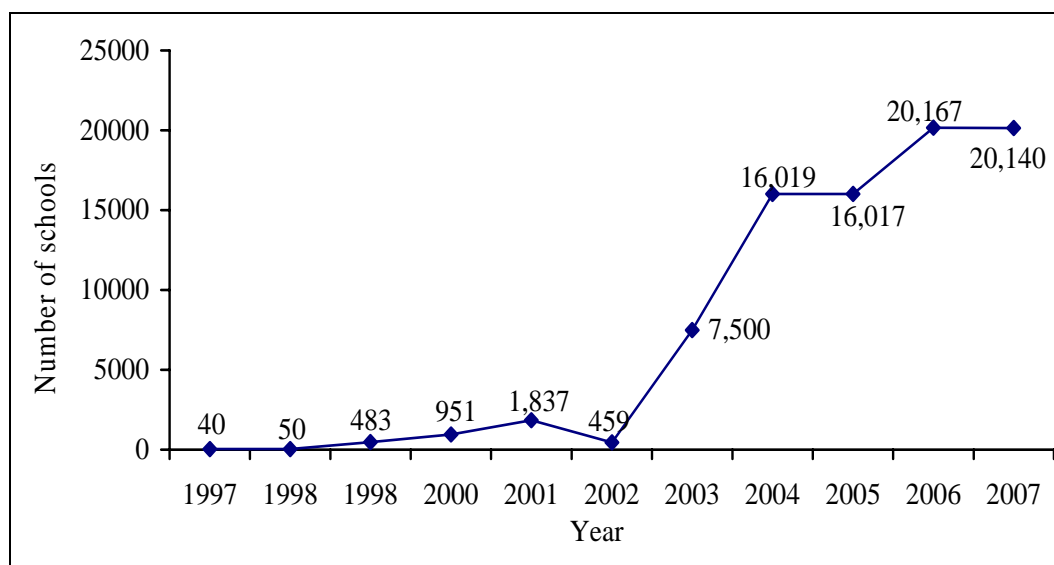
The BEP specialists, mainly from the Head Office level, are responsible to execute the BPP education programme at the field level. Nine units are there in order to execute all activities under BEP. The Government Partnership Programme (GPP) unit is responsible for pre-primary education programme. The main activities of this unit include operating pre-

primary schools at the field level, follow-up of the BPP graduates in primary schools, organizing Tutoring Support Centres (TSC), etc.

The activities are divided into sub-units. The material development unit develops the textbooks, the teacher’s guide, training modules, etc. Three Regional Managers (RMs) operate and manage the field-level activities of school operation. The whole area of BRAC pre-primary (BPP) is divided into three broad regions and each of the RMs are responsible for a region. The officers after the RMs are Area Managers (AM) followed by Branch Managers (BM) and Programme Organisers (PO). The POs are directly linked with the teachers and students of pre-primary schools. A sub-unit of GPP looks after the TSC operation and related activities. The Unit Manager of GPP is reportable to the Director of BEP. Policies are mainly made at the head office; however, implementation strategies are discussed and decided in the monthly RM meetings.

Expansion of BRAC pre-primary education programme was not that much faster during first six years (1997-2002). Number of schools was below 2,000 during this period. It started to increase heavily since 2003 (Figure 2). Number of school was 7,500 in 2003, which jumped-up to over 16,000 during 2004-5, and to over 20,000 during 2006-7. In 2007, 20,140 pre-primary schools were in operation with 0.56 million students (Table 1).

**Figure 2. Number of BRAC pre-primary schools by year**



Source: BRAC Education Programme database

**Table 1. Some basic information on the coverage of BRAC pre-primary programme, June 2007**

Number of area offices	49
Number of branch offices	655
Number of pre-primary schools completed	84,486
Number of children graduated from pre-primary	2.3 million
Number of on-going pre-primary schools	20,140
Number of students in the pre-primary schools	0.56 million

Source: BRAC Education Programme, School Operation. Website:

[http://www.brac.net/downloads\\_files/BRAC%20At%20A%20Glance%20-%20June%202007.pdf](http://www.brac.net/downloads_files/BRAC%20At%20A%20Glance%20-%20June%202007.pdf).

## **OBJECTIVES**

The main objective of this study is to do an in-depth evaluation of the pre-primary education programme of BRAC. The specific objectives are as follows.

1. Review the curriculum of pre-primary education programme.
2. Explore various issues related to implementation of curriculum in the schools including teacher preparation, their performances and classroom teaching-learning processes.
3. Know the socioeconomic background of the pupils, more specifically, how much the programme includes children from the poorer households?
4. Examine the performance of the pre-primary graduates in the primary schools compared to their peers having no pre-primary orientation.

### RESEARCH METHODS

This chapter presents various issues related to investigation method of this evaluation study. The issues include research techniques, instruments, the sample, data collection, ethical issues, and strengths and limitations of the study. It also justifies the validity and the reliability of data used.

#### RESEARCH TECHNIQUES

Combination of qualitative and quantitative techniques allows investigating status, process, situation, causes of such situation, and causes behind the causes (Usher 1996; Fowler 2002 and Smith 1999). We aimed to review the BRAC pre-primary curriculum, explore the performance of the students, curriculum implementation process and socioeconomic background of the pre-primary students.

Review of textbooks, teacher guide and other materials was mostly a desk work. Here we tried to understand how these fit with the basic concept of pre-primary education. It also required reviewing the materials of other programmes. Besides, a number of experts in BRAC and outside were interviewed to get their views on BRAC pre-primary curriculum. Appropriate checklists were used for interviews.

Regarding implementation of curriculum, teacher recruitment process was explored through interviewing the teachers, concerned BEP specialists, and the programme managers at local and head office levels. Additional data were also collected through reviewing various programme documents. A number of teacher training sessions (orientation and monthly refresher) were observed to understand the process of teacher preparation. Classrooms were observed to understand the implementation of curriculum at the classroom level.

To investigate the socioeconomic profile of the BRAC pre-primary students, a survey was conducted at household level. Currently enrolled children in pre-primary schools as well as the pre-primary graduates who were studying in primary schools (classes I-V) participated in the survey. In addition to the usual questionnaires, used in many educational surveys at RED, the poverty score card<sup>2</sup> was used for this purpose.

Tests were administered to examine the performance of the pre-primary graduates. Three groups of students were participated in the test; i.e., currently enrolled students in pre-primary classes, pre-primary course completers, and students without pre-primary experience. The competency-based test instruments, recently developed at RED, were used.

Qualitative research approaches were used for reviewing pre-primary curriculum as well as exploring curriculum implementation process. However, to explore the performance and socioeconomic status of the students we used quantitative approaches. While using the qualitative methods it required allowing the source (the interviewee) express their views in a free and personal way, giving as much importance as possible to their thematic associations (Strauss and Corbin 1990; Bogdan and Biklen 1992). On the other hand, owing to using

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<sup>2</sup> Poverty score card was mainly used in economic researches to reveal the level of poverty of Bangladesh (BBS 2004).

structured instruments such flexibility was not possible under the purview of quantitative approach. Data were collected in two phases. The first phase of the study dealt with the first two objectives. It was mostly a qualitative exercise. Followings were the activities for following phase.

Forty formal schools were selected randomly from rural Bangladesh where BRAC pre-primary schools were in operation. Ten pre-primary educated and ten non-educated students were selected randomly from each of the grades of primary schools. Half of them were girls.

### **TEST INSTRUMENTS, QUESTIONNAIRE AND CHECKLISTS**

Six sets of test instruments were used to examine the learning achievement of the students. The test instrument prepared for the current pre-primary students was a new one. This was developed based on the textbooks used in pre-primary programme. On the other hand, the test instruments for grades I to V were developed for another study on diagnosis of competencies achievement.<sup>3</sup> Thus, the instrument for pre-primary grade was textbook-based and the other instruments were grade-wise competency-based. Two subjects, viz., Bangla and Mathematics were considered in the test. The instruments were developed following the techniques of developing standardised achievement test, i.e., difficulty level, applicability, validity, and reliability, etc. were assessed. For each set of questionnaire, a set of draft test items were developed by the researchers with the help of some experts. The draft instruments were experimented on the students in their classrooms. Instruments were finalized based on the results of such experiments. The test for pre-primary was mostly oral with a short written section; thus, suitable for one-to-one test. Tests for grades I and II had a short oral part and a major written part. Tests for grades III to V were fully paper-pencil based.

A household survey questionnaire was prepared to collect data on socioeconomic status of the students. Most of the questions of the instrument were used in several previous studies conducted by the Educational Research Unit of RED. In addition, a poverty score card was added in the instrument to see the poverty reach of the pre-primary programme (BBS 2003). Household survey questionnaire was also experimented before finalization.

Besides, a number of checklists were developed for in-depth interviews, observation of training sessions and classrooms. Majority of those were prepared and experimented before starting the fieldwork. However, some had to be developed spontaneously based on some of the observations and interviews; experimenting of these was not possible.

### **THE SAMPLE**

A large sample was covered for exploring level of achievement of the pupils and exploration of their socioeconomic status. However, small number of sample were covered for qualitative investigation. We continued qualitative investigation, until we get repetition of similar information. For executing tests, our intention was to find out those branch offices of BRAC where the pre-primary programme was in place since 2002; so that we get pre-primary students in all grades of primary schools. BEP database was used for this. Thirty-eight field offices (called branch) could satisfy this condition. We selected one formal primary school from each of these 38 teams and additional two from two randomly selected teams. Thus 40 formal primary schools were selected. In each grade of these selected schools, 10 students having pre-

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<sup>3</sup> Competency Diagnosis Questionnaires have been developed by the Educational Research Unit of RED with the help of external experts. Those questionnaires aimed at assessing students achievement of competencies at various grades of primary schools. Fifty competencies were adopted by the National Curriculum and Textbook Board which are attainable through five years primary schooling. These competencies are broken down in learning continuum for each grade.

primary education (five boys and five girls) and 10 without pre-primary experience (five boys and five girls) were selected randomly. Total number of selected students was 4,000, equally distributed by grade, sex and pre-primary experience. Additional 40 pre-primary schools were selected from the same offices following the same process. All students were considered for test. Thus, the number of pre-primary students selected for the test was 1,200. Owing to smaller number of students available in the classes, it was not possible to take test of all of them. Thus, the actual sample size was smaller than this. Though we attempted to collect socioeconomic information of all the pupils under test, we could not cover some of them due to the absence of their parents (or any adult persons) at home. Distribution of sample by grade, sex and pre-primary experience is provided in Tables 2 and 3.

**Table 2. Sample size for achievement test**

Grades	Sex		Pre-primary orientation		Total
	Boys	Girls	PP	Non-PP	
Pre-primary	408	582	990	-	990
I	409	390	435	364	799
II	394	405	426	373	799
III	392	373	414	351	765
IV	371	381	390	362	752
V	337	345	298	384	682
Total	2,311	2,476	2,953	1,834	4,787

**Table 3. Sample size for household survey**

Grades	Gender		Pre-primary orientation		Total
	Boys	Girls	PP	Non-PP	
Pre-primary	414	574	988	-	988
I	405	389	431	363	794
II	393	400	422	371	793
III	390	372	412	350	762
IV	369	377	386	360	746
V	333	342	297	378	675
Total	2,304	2,454	2,936	1,822	4,758

Besides, two national and three BRAC specialists, three field managers, three head office level managers, three programme organizers, and three teachers were brought under in-depth interview. Two refresher training sessions for the teachers and three pre-primary classrooms (six days each) were observed. One focus group discussion was conducted with 13 pre-primary school teachers.

## **FIELDWORK**

Fieldwork was done by the researchers with assistance from some Research Assistants For the qualitative part of the study two Research Assistants having bachelor's degree in pre-primary education were recruited. However, for conducting surveys and tests, 25 Research Assistants were recruited. They had minimum bachelor degree in various disciplines. We trained them to orient about the study objectives and techniques of data collection. Classroom discussion, practical knowledge about pre-primary education programme, review of field experience, role play, etc. were done in the training sessions. The training continued for one week and once we realised that they would be able to collect data, they were sent to the study areas. One of the researchers supervised the field work and also conducted some interviews. Of the 25 Research Assistants, 20 were divided into 10 teams to collect data and five were given responsibility of monitoring the fieldwork.

Access to pre-primary schools was easier for us because of their attachment with BRAC. We were also welcomed by majority of the selected primary schools while some of the primary

schools were reluctant to cooperate with us. In such cases, we sought help of the local BRAC offices. Ultimately we were able to work in all the selected schools. The students for the test were selected from among those present on the test date. The test was a surprise one, meaning that it was not known to them before, and thus, there was no chance of selectivity bias due to absent in school intentionally.

It took two days to conduct tests in one school. Two sessions were arranged in each day. The first session of the first day was for grade I and second session for grades III and IV. The second day, the first session was for grade II and the second session was for grade V. For grades I and II, it took 10 minutes per students for the oral test and one hour for the written test. Tests for grades III-V took two hours for each. Twelve minutes were required for conducting test for each student of pre-primary class.

During written test, the students sat in such a way that one cannot see the answer script of the others. Before conducting the test, we tried to build rapport with the students and make them understand the whole process of the test. The students were allowed to ask questions for further clarification to the research assistants, if required.

### **VALIDITY AND RELIABILITY**

We maintained a close relationship with the real situation of BRAC pre-primary schools at every stages of the study. Before writing the proposal, we visited some of the schools and discussed with the teachers and school supervisors. Some formal primary schools were also visited. With the experience of field visit, we made the draft proposal and questionnaires. Appropriateness and applicability of the questionnaires was tested through another field visit. The proposal presentation seminar allowed us to get the feedback from the BEP specialists and other researchers of BRAC Research and Evaluation Division.

A big challenge was to train the RAs about the methods and techniques of data collection. Another challenge was to maintain similar extent of reliability among the data collected by 20 RAs. The five monitors and the researchers who supervised the whole activities of fieldwork were responsible whether the RAs worked in the field as instructed. It was done through random visit of the RAs while they were working. Independent checking of filled up questionnaires (in absence of RAs) were also done on random basis.

One of the two main researchers visited the study areas frequently to oversee field activities, maintain quality of data, and do some fieldwork. Cellular phone was available for frequent communication between the RAs and the researchers. Thus, the RAs were under close contact of the researchers which increased the extent of both reliability and validity of data.

Triangulation was attempted through using different methods in collecting same data. For instance, to explore the impact of parents meeting, we interviewed the respective PO who was responsible to arrange the meeting. Along with this, we asked the same issue to some of the parents and the respective teacher. Then we cross-checked the data and tried to see the level of similarities and dissimilarities. Thus, we took care of the validity and reliability of the data.

We, as researchers, were insiders in two contexts; Bangladeshi and BRAC employee. Thus, we enjoyed many advantages in respect to access, language, culture, attitude, etc. of the respondents. We adopted the role of patient investigators and triangulated the data from different sources. Thus, we took the opportunities of the insiders and tried to avoid all kinds of biasness.

## **ETHICAL CONSIDERATIONS**

During data collection, we were careful to maintain the rights of the respondents and at the same time conscious about the validity of data. In order to do these properly, we took some cautious strategies. For instance, during classroom observation, the teachers asked us about our mission. We disclosed them the study objectives and strategies for data collection. However, we thought that if we disclose the detail objective at that stage, the teachers would emphasize more on the issues we aimed to look at. This promoted us not to disclose the detail objective to the teachers at that stage. We simply replied that we aimed to look about how the activities were going on. The teachers seemed not fully satisfied with the answer but because of the power barrier they were unable to ask further question. Our identity as head office staff, appearance, dress, etc. prevented the teachers asking us further questions. They only helped us without asking anything.

Here one can ask the ethical issues from the teachers' point of view. Actually they could have enjoyed the right to ask us adequate questions. They also had the freedom to provide or not to provide us data. But, they did not apply this. They allowed us without asking their authority. We did not willingly explain detail of this because we thought that they may discuss the issue with the local managers, which may provoke them to supply data favourable to them. After completing classroom observation, we interviewed the teacher and other staff in the field. At this stage, we informed all of them about the detail of our objectives.

Since we were very careful to maintain the confidentiality of the test instruments, we hide the issue from BRAC staff. Actually we conducted the test to explore whether there is any gap between the PP graduates and non-PP students. At this stage, we were afraid that if BRAC staff were informed earlier, they might try to make the students aware. We were even reluctant to disclose the name of our school to the field level BRAC staff. At this stage, the issue of power barrier was in action which violated their rights.

The question comes here, what better we could do? We did all these for getting reliable and valid information. For the quantitative part of our study, the respondents were the students and their parents. We met the students at the classroom where we informed them about our detail objectives. They seemed very curious to take part in the test. For household survey, the respondents were not very curious about the issue of our research but we tried to inform them as short as possible. Thus, it can be said that we were interested to take informed consent from the respondents before collecting information but in some cases our experience did not allow us to do so. However, anyone can think that we violated the ethical rights of the respondents in some cases. In Bangladesh, to the best of our knowledge, no ethical guidelines have been developed for education research by the government or any other organizations. So we missed the opportunity to validate our process of maintaining ethical considerations. However, informed consent is impossible all the time in qualitative studies because events in the field and the researchers' actions cannot be anticipated (Miles and Huberman 1994).

### **Limitations**

Like any other study this research also bears some limitations. Following are the limitations we identified.

- In order to sample the former pre-primary students we have selected those formal schools which had pre-primary oriented students in all five classes. Thus, the selection of students depended on the schools where pre-primary programme started in 2002. The number of pre-primary schools increased since 2003, which we could not capture through our study design. Our study was limited to the spread of the programme in 2002. This means that

our samples for five different cohorts do not represent the population of the cohorts. Such a design might add some errors in the estimates when the cohorts are not homogeneous.

- Some government primary schools refused us to take the test or provide any data. In such cases we had to select school level alternative samples. Although the number of such case was small and taking alternative sample is very common in social and educational research but an error may cause at this point.
- Attendance of the students was lower than the usual time during fieldwork of the study. This was because of the teachers' involvement in the national identity card project. As a result, we sometimes missed the scope of selecting students from a larger group. This hindered us to cover the desired number of students. A reflection of this can be seen in Table 2.
- A part of curriculum implementation is teachers' preparation, which is done through training. We observed a number of refresher training but missed observation of basic teacher training. We had nothing to do with this because there was no such training during our fieldwork. Observation of basic teacher training could enrich this section of the study.

### REVIEW OF CURRICULUM

Before focusing on BRAC pre-primary curriculum we would like to start with a general discussion on curriculum of pre-primary education. Pre-primary and primary education are the pre-requisite for secondary education and again, secondary education bridges primary and tertiary education. Thus, the curriculum at different levels of education varies in terms of aims, objectives, learning outcomes, and other characteristics.

To understand the aims of BRAC pre-primary schools and how these fit with national goals, we evaluated the course and curricula used in BRAC pre-primary schools. Considering their relevance to BRAC pre-primary education programme following paragraphs highlights some issues related to child development and pre-schooling from the Curriculum Development Council of Hong Kong (2006).

The nature of children leads the characteristics and contents of pre-primary curriculum. Adherent to pre-primary education emphasised on two aspects simultaneously, these are children's development and their learning when they talk about the issue of curriculum development (Mifflin *et al.* 2005). The children have their own way of learning, which is different from the way the adults follow. The theory of multiple intelligences refers that there are many aspects of human intelligence and every individual has varied strengths. Diversified learning opportunities should be created through pre-primary curriculum so that the children can develop their different potentials.

According to numerous studies on learning theories, children learn gradually and construct knowledge with the assistance of adults. The development and learning of children are greatly influenced by the people and things they encounter at home, school, and in the society. Construct learning theory reveals that the children are active and self motivated in their learning process. The teachers only play the role of facilitator, motivator and supporter to help children learn and grow.

To foster children's initiative in further developing and enhancing their knowledge and ability, teaches need to understand and respect the unique developmental pattern of every children. Aspects of all-round development including physical, intellectual, language, aesthetic, social and emotional are needed to be included in pre-primary curriculum (The Curriculum Development Council 2006). Emphasis should also be provided on three key elements of learning namely knowledge, skills and attitudes.

According to the Curriculum Development Council of Hong Kong (2006), planning of pre-primary curriculum should be based on the following 10 principles:

1. Catering for the overall physical, intellectual, language, aesthetic, emotional and social development of children,
2. Meeting the developmental needs and abilities of children,
3. Relating to the experiences and interests of children,
4. Motivating children's curiosity and thirst for knowledge, and encouraging interaction and independent thinking,
5. Fostering knowledge, skills and attitudes in different areas of learning,
6. Using themes for the purpose of flexible curriculum integration,

7. Promoting the unique values and functions of different kinds of play activities
8. Providing children with opportunities to express themselves, to be creative and to enjoy the fun of activities,
9. Giving due consideration to children's family background and their experience gained in the family, and
10. Meeting the needs and development of society.

The following discussion will evaluate how each of these characteristics of a good curriculum is valued by the curricula of BRAC pre-primary education. Discussion can be divided into four parts of development, i.e., physical, cognitive and language, affective and social, and aesthetic development. Before evaluating the BRAC curriculum, we want to provide a brief description of the curriculum.

### **A LOOK AT THE BEGINNING**

BRAC piloted pre-primary education programme thrice - once in 1985 with two schools, in 1988 with 10 schools and again in 1997 with 40 schools. The third piloting continued for two years. During the pilot phases there was no curriculum and textbook. At that time, BRAC's support was limited to rent of schoolhouse, teacher recruitment, their training and school supervision. The parents provided teachers' salary, and the textbooks prescribed by BRAC. During the pilot phase BRAC's intention was to understand the children aged 5-6 years and their needs and psychology, and motivation of the children and their parents. With the experiences gathered through the pilot programme, ideas and guidance provided by the then Director of BEP, and experiences of BEP specialists and curriculum experts, three textbooks, and a teacher guide for pre-primary class were developed.

After developing the textbooks, initiative was taken to identify the competencies reflected in the textbooks. With support from an external consultant the competencies were modified and the textbooks redesigned. Generally, textbooks are prepared following the objectives of the programme, competencies or learning outcomes intended to achieve by the pupils, but here in case of BRAC the process went in an opposite direction. The competencies were again updated and revised in 2007.

The pre-primary curricula was reviewed twice by external reviewers in 2006 and 2007 (Aboud and Hossain 2006; Banet 2007). Both the review teams proposed no modification of the curricula. The first team of reviewers commented the following.

*Overall, we felt the curriculum is good and there is no need to modify it, except to add a third column of the subject activities best used to develop each skill (Aboud and Hossain 2006, p. 5).*

In this circumstance, one may ask, is there any substantial reason to review the curriculum once again since no need was felt by the previous reviewers? Before answering this question, we want to discuss some issues concerned to this topic.

The specialists of BEP and authors of the BRAC pre-primary textbooks wanted modification of the textbooks since they found insufficient text and examples in the books. They also thought that as the books were prepared about seven years back, some new ideas could be introduced. The teachers and POs also asked for some changes. The management of BEP wanted to do such changes based on their experiences including observations of the external experts. As the external consultants did not see the necessity of any revision of the textbooks, it did not proceed further. Probably the consultants missed the perspective of BEP or they intend to encourage the BEP specialists saying that the textbooks are okay. In response to the feedback from the field, the specialists of BEP modified the teacher guide several times and

some new contents have been incorporated in the teacher guide. This has resulted difference between the textbooks and the teacher guide. In such a situation, some difficulties were created for the teachers.

However, since BEP itself felt the need of modification and thus started to do so, we did not see any reason to overlook it as a part of our evaluation exercise. In spite, necessity of a scientific review of the curricula should not be overlooked.

## **REVIEW OF TEXTBOOKS AND TEACHER GUIDE**

We considered four books for review which were published by the BEP for practice and exercise of knowledge in pre-primary school of BRAC. The books are - *Borner mela* (Collection of letters), *Chaabi dekhe sikhi* (Learning by observing pictures: environment and science), *Saankhar mela* (Collection of numbers), and the other is *Shikhhika sahaeka* (Teacher guide). The first three are used as textbooks and the last one is the guide for the teachers.

### **Collection of letters (*Borner mela*)**

This is one of the important textbooks for pre-primary students because it introduces pupils with their mother tongue. Since the title of the book indicates letters in general, the major part of the book introduces pupils with the Bangla letters in chronological order. To understand the letters well, two/three words made by each letter were also added beside each of the letter. However, some more words and few sentences could be added in this book. The pictorial presentation of each word is also provided in the book. The letters are provided following the chronological order. The writers tried to introduce the letters to the students and at the same time explained how these letters are used in words.

All these are obvious for better learning. Considering the contents of the book one might think that *Esho bangla shikhi* (Let's learn Bangla) could be a better title. As the word *Mela* refers to gathering in a festive mood, the current title of the book could be considered as good enough.

However, some words do not match with the nature of the pre-primary children. For instance, to introduce the first letter of Bangla, three words are provided, viz., *Ozogor*, *Oli* and *Onek Fol* (respectively Python, Bee and Many Fruits). The word 'bee' is an appropriate word since it is known to the students. Python is a dangerous type of snake in Bangladesh and students of pre-primary level may afraid of it. The picture of Python also caused an occasion of getting scared for the young children. On the other hand, 'many fruits' is not a single word, it indicates the quantity of fruits and here quantity is relative. The quantity of fruits is not that high, therefore any student can think that this number of fruits cannot be considered as many. Some better words are available in Bangla to introduce the first letter. For instance, Python and 'Many fruits' can be replaced by words like *Otithi* (Guest), *Onno* (Rice), *Ondhokar* (Dark), *Olongkar* (Ornaments), etc. Some other words (preferably names of things, trees or animals) are used in order to introduce the letters which are not familiar to the students and to the teachers; therefore they couldn't explain those in the classrooms.

The later part of the book contained practice of writing the letters followed by reading words and sentences. At pages 9, 27 and 37, scope has been created for drawing pictures by joining dots. The dots indicate different Bangla letters chronologically and the students need to practice the game, which will help them learning alphabet. This type of exercise is popular among the children, which are mostly found in the newspapers and comic books. Our observation is that the space for the dot-games is congested and the letters put there are too small for pre-primary level. It is necessary to increase the font size in all three dot-games. More

space is required for the dot-game on page 27. Both the dot-games on pages 27 and 37 can be landscaped.

The book concludes with the topic about the pattern of making sound by different animals which does not match with the title of the book. It was expected that the book will conclude about whether the students have understood the Bangla alphabet and whether they have achieved the skills of reading and writing words and sentences.

### **Learning by observing pictures (*Cahhbai dekhe shikhi*)**

The aim of this book is to give an understanding of science and environment through visualizing the pictures commonly found around us in the society. The contents of the book are clearly understandable and transparent enough. The colour combination is some how acceptable, but there were scopes to be more careful in specification of colour for better understanding of the specific animals. This may help the pupils more to identify the animals quickly while they will have a chance to see them in real life.

Moreover there are some sketches of some animals in the book, which were left for the pupils to colour them. If the pupils were given the idea and knowledge on the exact colour of the specific animal, they could do proper colouring while they were assigned the task. This could help the pupils identify various dimensions of colours and how the combination of colours works. Majority of the objects given in the book are commonly found in Bangladesh. On pages 40-41 of the book, an attempt was made to give a sense of three seasons. It is all right that use of umbrella is seen to protect from sunlight in summer. Use of hand fan in summer might be better in order to differentiate it from rainy season. It shows that children use umbrellas to protect them from rain in rainy season.

The definitions of living and non-living things given on pages 10-11 are a bit misleading. To give a sense of non-living things it is said that since these cannot grow up in size, cannot take meal and unable to move, therefore these have no lives. Instead, we could say, since these have no lives therefore they cannot grow up more in size, and take meal. A similar type of misconception was found to introducing the living animals. The difference between a living and a non-living thing lies in capability of breathing. The former can breathe and the later cannot. The concept of breathing could be brought in this book, which the pupils could feel by themselves.

On page 22, pictures of five living things are given in two columns. The first column shows the front parts of the living things and the second column the back part. Here the children were asked to identify the current tail of each of the things observing their front parts. It seems that the objective of this content is to learn identification of the tails of some living things, which is probably not the case. Rather the students could be asked which two parts (one from the left column and another from the right column) can make a full living thing. The students could be asked to make five full living things putting together the parts of each and name them. Practical work can be introduced in this case.

The following page (# 23) tried to give a sense of trees and plants. The idea is good. In Bangla, it is written as big trees and small trees. It had to be trees and plants (*Gaach* and *Udvid*). This needs to be corrected. In addition to let the pupils identify the trees and the plants; we could ask them to classify them according to their capacity of giving us fruits.

The next three pages illustrated some vegetables, fruits and flowers separately. The questions thrown to the pupils were to identify which vegetable and flower they like most and which fruits are available in all seasons. Identification of favourite vegetables and flowers is not a bad idea. Some additional questions could be thrown to the students illustrating the

vegetables, fruits and flowers collectively in one page. A sample of the questions might be as follows.

- Identify the fruits with red marks and vegetables with green marks.
- Which of them can be cooked when they are green?
- Name the colour of the flowers.

There are some printing mistakes in the book. The word *চঁহে* should be *চঁহে* (page # 7), *তঁব্বহঁ হঁহঁহঁহঁহঁ* can be *তঁব্বহঁ তঁহঁহঁ হঁহঁহঁ* (page # 3), and *হঁ B* should be *হঁ B* (page # 30). Picture of bus on page 9 can go further later; better to put it at the end of this section. Concept of human body is missing in this book. A page can be allocated to introduce the pupils with various parts of human body. Practical work can also be introduced while teaching human body. This can be linked with counting part of mathematics. The students can be asked to count various parts of their body. For instance, how many heads, eyes, bellies, fingers, hands, and legs do they have?

This book is about environment and science, thus the contents have to be presented in such a way that the students can learn scientific matters as well as their environment. It would be much wealthier if they could learn their environment from a scientific point of view. Issues selected for the book are very much appropriate for pre-primary students. A little rearrangement of these and their presentation can make the book more appropriate. Most of the examples used in this book are based on rural context. This is good because majority students of BRAC pre-primary schools are from rural areas.

Some of the examples used in this book merely seen by the rural pupils because they have a little chance to visit the zoo. This is obvious because there is only one zoo in Bangladesh, which is located in Dhaka. At least students can see the photos of some animals which are not seen around them and be familiar with them. There is a scope to argue about using the photos of animals considering the threaten aspects of these. If the teachers are cautious about this, they can handle it while teaching.

### **Collection of numbers (*Sankhar mela*)**

This is the mathematics book for pre-primary class. The book started with providing the concept of left and right. Two major areas covered in this book are the concept of numbers and geometric figures. The concepts of more and less, in and out, on and under, small and big, etc. are also provided. Counting, knowing the numbers, and writing numbers are various issues in number section. Geometrical figures included square, triangle and circle. Concept of addition and subtraction are also given to some extent. This means that although the name of the book is 'Collection of numbers', it covered beyond numbers. The concept of numbers logically turned into mathematics.

The issues selected for this book are quite all right. In addition to the sketches of different goods and objects in the book, some real goods and objects should be used while giving the concepts to the students. Acting/theatrical performance can be done while teaching some of the concepts, viz., in and out, on and under, more or less, small and big, etc. Pupils can be taken to a cow in order to count various parts of it (page 29). They can also count different parts of their school house and human body.

Geometrical shapes are introduced in ages 9-13. Practical examples of the geometrical shapes are absent in the book. Some examples of these can be a door or a book for rectangle, a plate for circle and one side of tin made roof of house for triangle. Before introducing geometrical shapes concepts like dot and straight line could be introduced.

Page 43 of this book seems to be clumsy. A lot of objects were drawn in one page. It could be better if two pages were used. In addition to the given exercise, the pupils could be asked to count the objects separately. For instance, how many apples, stars, parrots, bananas, flowers are there on the page. It is better to give them space to write the answers of the questions.

To mean any object, the word *ବିଷୟ* was written several times in this book (pages 5-8, 50). Is it the perfect word to mean the objects? The word *ଠିକ* is better than this, which was written in majority of the cases. Alternative words like *ଦିଗ*, *ପଦ* etc. can be thought by the specialists and material developers of BEP.

It is good that most part of the book is used for introducing the pupils with numbers and counting objects. Seven pages were used for introducing them with addition and subtraction with single digit numbers. The way of presentation is good– visual to abstract. The visual part is helpful for the students doing both counting and addition or subtraction together. The concept of addition was given through a visual presentation with a numeric example, which is not the case for subtraction. No numeric example was provided. Again the visual part of introducing subtraction is not clear like as addition. It requires more thoughts while doing the next revision of the book. An additional page could be added with exercise of subtraction.

### **Teacher guide (*Shikhhika sahaeka*)**

This book starts with a guideline to the teachers. This guideline tells what to do and what not to do as a teacher. How to do is also an important part of it. The guidebook explains teaching methods, lesson plan, and the issues related to pedagogy. Issues to teach, objective of teaching, teaching aid required, way/method of teaching, and required time are given for each of the contents of the books mentioned earlier. All activities of pre-primary course are divided into 150 days/classes. The contents for each day or every class are mentioned systematically. It is written in such a way that the teachers do not require for preparing any lesson plan. Actually the whole curriculum of pre-primary is divided into 150 lesson plans. Two hours is allocated for each day. It is to be noted that contents for some classes are wider compared to others. For instance, 25 minutes were allocated to discuss summer and winter sessions (lesson 125; page 171) and same amount of time to discuss rainy season (lesson 126; page 172). Therefore, it may sometimes be difficult for the teachers to complete the wider contents.

This guidebook not only guides the teachers how to teach the three books mentioned earlier, it also includes physical exercises, drawing, reciting rhymes, story-telling and games. These are very important for emotional and physical development of the children, which are among the objectives of pre-primary education. A good portion of the contact hours is allocated for these activities. At the end of 150 lesson plans, 15 rhymes, description of 15 games, and pictorial presentation of 10 physical exercises are provided. These are very much helpful for the teachers.

The teacher guide is so well written that one can easily follow it and run a pre-primary class. However, there is scope to blame the guidebook for not being open or flexible to incorporate local knowledge or allowing teacher not to be innovative. The teachers could be asked to innovate or incorporate their knowledge (or even the pupils' knowledge) in conducting the classes. There are some areas where we can easily welcome flexibility. For instance, in games or rhymes section, local games and rhymes can be introduced. The teachers can think of themselves and introduce those or they can ask the students. This can be done at least in the revision classes, which are held every third day.

One or two paragraphs can be added at the beginning of the teachers guide (in guideline section), which can help teachers be innovative and interested in using local knowledge in classroom activities. A clear-cut guideline is required for this. It is important that a teacher would be an innovative person compared to anybody else. The first challenge is to make the teachers understand that they must be innovative. The second one is to give them scope to be innovative. Some activities and exercises can be done in teachers training sessions in this line, especially during the monthly refresher course.

### CURRICULUM IMPLEMENTATION

This chapter consists of the implementation process of pre-primary curriculum in BRAC schools. The components include recruitment and capacity building of teachers, renting school house, process of classroom teaching-learning, selection of pupils, school hour and teaching outside school.

#### TEACHER RECRUITMENT

While conducting surveys for identifying prospective students in the locality, the POs also search for prospective teachers. An advertisement is also posted at local BRAC offices for teaching posts. Earlier, females with Secondary School Certificate (SSC) were asked to apply for the posts. In the new recruitment policy the word 'females' was replaced by 'married females'. Preliminary selected persons are called to participate in a basic teacher training workshop. Successful participants are finally appointed as teachers.

Change of teacher recruitment policy has an impact. The positive impact is the increase of education level of the teachers, which can serve the purposes of both pre-primary and tutorial support centre. However, a condition was imposed that the candidates should be a married and SSC passed. An in-depth analysis of this condition generates following issues.

1. Usually the students become secondary graduate (SSC passed) at the age of 14 to 16 years. The legal age for marriage in Bangladesh is 18 years for the females. If someone wants to be a teacher in BRAC pre-primary school after passing SSC examination, she would have to be married earlier, violating the legal age bar or would have to wait for some years until she becomes 18 and get married. Marriage may be delayed owing to various social and personal reasons. It is obvious, if someone has a study gap for some years, she would be detached from the study process. Impact of this is serious. It may make her teaching profession challenging in a busy schedule of family life.
2. The rural people, especially women, frequently struggle for getting a job. However, the current recruitment policy does not match with their condition. For instance, if someone wants to continue study with the income from part time job in BRAC pre-primary school would not be able to do so.
3. Sometimes the POs face difficulty in recruiting married females who are the housewives. Although they are willing to get the job, they face barriers from the elderly males of their households. Barrier is often created in the name of taking care of their young children.
4. Current remuneration is not attractive to some prospective candidates.

A teacher of a BRAC pre-primary school currently studying at higher secondary level is unmarried. She fears to be dismissed from job which will ultimately lead her parents to insist her to get married in order to continue the job. She is determined not to marry at this stage even if she loses her job. This issue needs to be explored further and the policy needs to be reviewed.

BRAC should not take any policy that may insist girls to early marriage. Early marriage contradicts with the BRAC philosophy of development and women's empowerment. Again, if

the new recruitment policy is implemented, some teachers will lose their job which will have an impact on their family.

If the condition of being married is dropped the college students would be interested to serve as teachers. This would allow them to continue higher education which ultimately will help towards women's empowerment. Besides, as the current students are already engaged in study, their quality as teacher will be better than the teachers who start teaching after a gap for some years in their study. One potential threat in selecting this group as teachers is that they may leave the job. Considering BRAC philosophy of development and commitments nationally and internationally, the issue of teacher dropout should not be a major concern.

## **TEACHER TRAINING**

Teachers are important component in any education provision. Rightly motivated to education at pre-primary level, committed and trained persons are important for establishment of a better teaching-learning provision. Success or failure of school programme depends primarily on the teachers. Dealing with children at their pre-primary stage is a tricky one. The teachers of pre-primary schools should have diversified qualities and ideas to guide and support the children. To make the teachers capable of maintaining all these responsibilities, BRAC offers various training courses to the teachers. These include basic, orientation and refresher training.

A six-day basic training programme is provided to the newly recruited teachers for pre-primary schools. According to the trainees, this training offers some orientation on BRAC and its activities, pre-primary education system and some pedagogical issues. After a year of teaching, each teacher is given a two-day orientation. This is done at the beginning of each year. Refresher training is provided to them once a month. Duration of refresher training varies from 1 to 5 days according to grades. We did not have the opportunity to see any basic or orientation training session. However, our observation included monthly refresher training.

According to the teachers, refresher training programme was very helpful. Close supervision of classroom activities by the POs created easy opportunity for teachers to enhance their capacity to deliver lessons in the classrooms. The POs and BMs informed that the main objective of this training was to furnish the teachers with the lessons for next month. We observed that few initial hours of the day is spent for some managerial activities, which include providing salary to the teachers, renovation of schoolhouses, distribution of teaching materials and attendance of the students, etc. The POs are supposed to conduct the training session. In one of the two refresher training workshop we found that a branch manager was present in the training session. The BM conducted the session on *story-telling*. The trainer chose a particular story and showed the teachers how to tell it to the students. He was encouraging the teachers to copy him in telling the story. The teachers were also trying to follow him. The trainer had problem with pronunciation and expression. It is important to have dramatic skills in order to be a story-teller. We came to know from the specialists of BEP that the objective of story-telling is to develop linguistic and emotional skills of the pupils. Ability to understand by listening was another important objective of story-telling in the pre-primary classrooms. From the view of the objective, the way of training was not appreciable. We know that story-telling helps to enhance the vocabulary, creativity and ability to express. We expected that the teachers will be encouraged to explore their own thinking and creativity. The teachers are experienced in classroom teaching. So they could suggest better techniques to deliver lectures in classrooms. These were unfortunately not done in the training session. In this story-telling session the teachers were found to copy the BM simultaneously.

In another session the trainer was trying to train the teachers on how to teach English alphabets. The trainer showed her way several times and then the teachers followed her. This is

good that the teachers followed a standard and unified process which helps them to maintain consistency among them.

Regarding allocation of time for administrative and training activities, the teachers opined that a full day is required for training. We observed that the training part was concentrated only on the lesson plans written in the teacher guide for next one month. No discussion was held on child psychology or any other related topic. Child psychology regarding the content for the next month was obviously absent.

## **SCHOOL HOUSE**

BRAC pre-primary classes are held in two different types of locations. Some are situated at the campuses of government primary or registered non-government primary schools and some are outside. If any unused classroom is found in the above schools, BRAC operates a pre-primary class there. In some cases, BRAC refurbished the unused classroom or builds new temporary room on campus. For the other type of school, there is no separate school compound rather pre-primary session is conducted in a room of a residential house. Residential environment surrounding the schoolhouse consequently creates some hindrance. Curious people were trying to see what was happening in the classroom. In one school, people living nearby were quarrelling with loud voice and the teacher went out to request them not to make chaos. This might not be a common occurrence.

According to the procedure of BEP, a pre-primary school house should have minimum 306 cubic feet of space (length 24 feet, width 12.75 feet and height 8 feet) and the monthly rent is BDT 225. According to the POs and the managers, the amount is too small to get a suitable schoolhouse. For instance, a PO told that the owner can rent out a house more than the amount of money we offer. To implement the procedure of BRAC, the POs frequently try to sensitise the house owner by inspiring his philanthropic sense. In response to my question regarding sensitization of the house owner a PO gave the following statement.

*If you allow us to open a school at your house, the young children of your village will receive the opportunity to study. Otherwise we will do it in another village and your children will be deprived. So, think this is a sacred contribution to your children.*

This type of motivational words inspires the house owners to let the POs to open pre-primary schools there. According to the POs, managing the school houses was one of the difficult tasks for them. To solve this problem, the POs thought that increase of amount of rent might be a solution.

## **SELECTION OF PRE-PRIMARY CHILDREN**

According to BRAC policy, the ratio of girls and boys in pre-primary schools should 60:40. BRAC wants to enhance girls education and hence their empowerment in social life. The POs faced some challenges in the field to implement this policy. The current provision is to open two pre-primary schools in each catchment area of formal primary school. The proportion of girls in a certain age group in each catchment area is about equal to that of the boys. Age limit for pre-primary enrolment is 5-6 years. If there are enough children to choose, the POs generally consider the smarter one. In most of the cases, they are to regret the boys. In order to do so, they are to present lame excuse like seems to be over-aged, taller than others, etc. Again, if there is scarcity of girls they consider over-aged girls to follow the policy. Sometimes they face difficulty to make the parents understand the policy. Let us give an example.

There are 70 children of age 5-6 years equally distributed by sex in a certain catchment area of a formal primary school. BEP considered opening two schools there. According the

current policy, 40 girls and 20 boys could be admitted in two schools. The question comes, where will the POs get five additional girls and what will happen for the rest 15 boys? Current practice in such case is to take five over-aged girls and exclude 15 appropriate-aged boys showing some lame excuse.

BRAC may review the policy. BRAC's pre-primary schools prepare students for the formal primary schools. Since equal number of boys and girls are enrolled in the formal schools. BRAC can admit equal number of boys and girls in its pre-primary schools.

### **PRE-PRIMARY SCHOOL HOUR**

Even though the pre-primary class is scheduled for two and half an hour, the teachers urged that in order to complete all necessary activities for the day at least three hours were required. Thus, most of the days, the classes continued for three hours. However, the developers of the contents of the textbooks claimed that the contents distributed for one session should not take more than two and half an hours. Following issues may come up from this.

1. The training for the teachers might not be able to teach them how to complete the day's lesson within the stipulated time.
2. Even taught in the training session, the teachers might not be able to do it in the classrooms within the given time.
3. The contents for the days may really demand more time than the stipulated time.
4. There might be a communication gap between the teachers and the textbook developers.

Earlier the scheduled time was two hours. The time increased to two and half an hour since 2007. It is important to know why the teachers require additional time. If it is justified for better teaching learning; the authority should increase contact time officially.

### **TEACHING MATERIALS**

The teachers use various teaching aids to make lessons easier and attractive to the pupils. Some of the aids are provided by BRAC and some are made by the teachers and the students using local materials. BRAC-provided teaching aids include letter cubic (*Borner chokka*), domino cards, textbooks, teacher guide, copybooks, pencils, erasers, sharpeners, English alphabet chart, scale, hardboard, etc. The locally-made materials include letter chart (*borner* chart), number chart (*shonkar* chart), pot made of mud, mobile phone, oven, cake, plate, glass, rope, snake, *dheki*, doll, boat, ball, watch, sticks, etc. Locally-made materials have two purposes; firstly, to use those while teaching, and secondly to decorate the classroom. The quality of locally-made charts varies from one to another; therefore, the teachers opined that BRAC should provide printed charts. It was found that the students and teachers made some beautiful materials. The students also collected some materials from their parents. It was revealed through interview that the teachers purchased some materials of their own. Though some teachers claimed that they contributed financially to prepare some materials, they did not claim the money from BRAC. They thought that BRAC would not allow their claim. However, small contribution of the teachers is significant in relation to their low remuneration. Some teachers opined that some financial contribution of BRAC could decorate the classrooms attractively. Providing training to the teachers on teaching aid development could be helpful in this regard. Teacher's participation in preparing teaching aids is significant to bring local flavour in the curriculum. Involvement of the pupils in the process is also important. This will not be achieved if all aids are bought from market. We think that decorating all the pre-primary classrooms with printed charts will not be helpful because experience of such activities will be helpful for achieving the objectives of early year's education.

The teachers, POs and managers wanted more aids for teaching English. We also noticed that less instruments and mechanisms were used to teach English alphabet than those of Bangla. Only one chart for English alphabet was hooked on the classroom wall. The above was obvious because of the curriculum. Most part of the curriculum emphasized to give a strong foundation of language and mathematics suitable for young children. As English was taught in grade I in the formal schools, a small amount of content was there in pre-primary curriculum. It was important to ensure that the young children start their pre-schooling in a joyful environment and without heavy load of texts and teaching aids. It was not necessary to introduce much English text at this stage of education. More emphasis would be put on joyful learning, correct pronunciation of Bangla alphabets and words, story-telling, and preliminary mathematics skills.

### **CLASSROOM TEACHING-LEARNING**

Classroom should be a place of good communication if one wants to make effective teaching-learning. Such communication should take place between teachers and students, among the students; both two-way and multi-way. This type of communication requires some facilities in classrooms. As part of this, the way of delivering lessons by the teachers and the mechanism they follow for classroom management play critical role to make the session enjoyable and productive.

Our classroom observation reveals that the teachers tried to strictly follow the lessons they learnt during refresher training. The teachers did this as the POs and the managers instructed them to do so. It could be noted here that exact copying was not possible and to remind everything was very difficult. By following the exact instruction of the trainers, the teachers were losing their own creativity and at the same time they were missing the opportunity to make the students creative. For example:

The teacher was presenting how various types of animals bark. While she was teaching how the dogs bark, coincidentally a dog was barking nearby. One of the students tried to draw the teacher's attention about the bark of the dog. Surprisingly, the teacher did not give any attention to the concern of her student. She was trying to ensure students concentration on the book - the way of barking written in the book. Answering to our question the teacher replied, "I did not consider the pupil's concern because of the way the dog was barking and the way is written in the book was different. I am supposed to follow the textbook." After some time she also mentioned that, "We were instructed to follow only the way we learned in the training."

This example again indicates a gap between the training and the practice. Probably this teacher failed to understand what the trainer meant by saying to follow the instructions of the training sessions. This may also be the case that the trainers asked the teachers to strictly follow them and the textbooks in the classrooms. If the second one is true, there is a scope to rethink about pre-primary teacher training.

The teachers generally conducted the classroom activities following the textbooks and the teacher guide. However, no textbook is given to the students before the 27th lesson. This practice is good in the sense that at this early stage of life children should learn first from the nature and through oral instructions. Instead of facing a textbook from the first day of pre-schooling, oral instructions, recitation of rhymes and learning through various colourful learning aids should be the provisions of teaching-learning up to a certain period of pre-primary education. Moreover, books could be introduced in an appropriate time. It should be the teachers' jurisdiction when and how they would introduce textbooks to their students. However, the teachers must be intelligent and skilful in this task. If it is not possible to prepare them up to this standard, an approximate bar can be set by BRAC. It should be kept in mind

that in case of children's education, teacher is an important teaching aid. Thus, her preparation as an innovative guide for the pupils is important.

### **CHILDREN WITH SPECIAL NEEDS**

To provide equal opportunities to children with special needs, BRAC has decided admitting children with various abilities in pre-primary schools. About 1% of the students of pre-primary schools were with special needs (BRAC 2006). Our observation reveals that no special care was there in the schools for these pupils. In one school we found a mentally retarded pupil. But the teacher was not seen to offer any special attention and care to her. Thus, she was unable to keep pace with other children in learning. In answering to our question, the teacher informed that though they were instructed to take special care of pupils with special needs, they were unable to do so within the time limit of two and half an hour. As there was no extra time allocated for such care and they already worked more time, it was not possible to take special care. It seemed to us that it was hardly possible to help these children. Absence of any discussion regarding the issue of children with special needs in the textbooks or teacher guide justified the claim of the teachers. However, in-depth interview with a pre-primary expert suggested that special attention needed to be provided to the children with special needs in the classrooms of BRAC pre-primary schools.

### **GROUP TEACHING**

The teachers conducted the classroom activities dividing the students into 5-6 small groups. Each of the groups was lead by a group leader. Instructed by the teachers, the group leaders shouldered some responsibilities in classroom teaching-learning. Checking the works of the group members (on slates or copybooks) was one of the key responsibilities of the group leaders. This practice was considered effective since it saves teachers time. This was a challenging practice indeed. Firstly, we found that the group leaders were doing mistakes in checking slates or copybooks, which was not rechecked by the teachers. Second, the group leaders with assistance from the teachers became confident and they valued themselves as better than others. This might have a psychological affect on the students and hence inequity among them. Getting opportunity, the group members might do the same job. Our observation revealed that other students were trying to shoulder the same responsibilities like the group leaders, but the teachers did not encourage them. The teachers can think how they could ensure equal opportunity to all pupils. The group leaders can be made by rotation so that each of the pupils get chance to work as leader.

### **ATTENDANCE**

High attendance rate is a unique characteristic in all types of schools under BRAC Education Programme. BRAC takes special measures to bring the students in school regularly. This is equally evident in BRAC pre-primary school programme. BRAC staff subsequently visit the pre-primary schools to ensure the students' regular attendance. The attendance rate of pre-primary students is also high (98%). If any student remains absent from the class, the BRAC staff or teacher explores the causes behind her/his absenteeism. If possible they try to bring the absentee students to school. The process sometime raises question.

A cautious observation found that two students attended the class in spite of their sickness. A student was sleeping in the classroom and another one was about to sleep. When the teacher was asked about the sleeping boy, she tried to wake-up the boy. However, the boy couldn't open his eyes. In answer to a question the teacher replied, "His sickness was not serious". Moreover, she emphasized on the necessity of attending the class. "If some students remain absent from the class, they will lag behind the other students in taking lessons" – The teacher argued. From common sense, it is understood that these two pupils needed proper care,

nursing and treatment at that moment. This incident implied that the teacher gave more importance to attendance of the pupils than their comfort and treatment.

In an observed school, we found a boy sleeping inside the classroom. Followings were the conversations with the teacher about the pupil.

Researcher : What happened to the boy?  
Teacher : He is sick, got fever.  
Researcher (with surprise) : Why did he attend the class with sickness?  
Teacher : His sickness is not that serious. He is attending the class with comfort.

The teacher then tried to wake-up the boy from sleep but the boy couldn't open his eyes.

Researcher : I think, he is seriously sick and needs rest and care.  
Teacher : If I allow him to go home he would not stay at home. He would not take rest. He would go out with his peers to play.  
Researcher : It is better to call his parents and let him go home.  
Teacher : We are not allowed to do so.

The teacher then asked him to wake up but the boy was in a sleepy mood. We found another boy in the same classroom who also got fever on that day but attended the class due to the demand of the teacher.

### **MOTIVATION OF THE PARENTS**

There is a provision of monthly meeting with parents. On the meeting day, the teacher keeps the books and other materials of the students in school and asks them to call their parents. The respective PO and teacher also attend the meeting. The participants were mostly the mothers and sisters of the pupils. Fathers, brothers and other members of the households also join in some cases. The PO takes a brief report about the school from the teacher. The report includes pupils' attendance, home work done by them, cleanliness, etc. In her report the teacher raises some issues which are concerned to the parents. In-depth interview with some parents reveals that the parents found the meeting effective because it helped them to be aware about their children in school and further responsibilities they need to undertake. However, a question could be raised, "Why the teachers keep the books of the students on the day of parents meeting?" May be the teachers were in confusion that the parents would not join in the meeting willingly. If the parents attended the meeting without the provision of keeping the books of their children in the school, that could explore parents' interest to attend the meeting.

### **FOLLOW-UP OF FORMER PP GRADUATES**

There is a provision to follow-up the pre-primary graduates in the formal primary schools. This is done in two ways. Firstly, the POs visit the formal primary schools and ask the teachers about the progress of the pre-primary graduates. They take information on attendance, class performance, cleanliness and other good practices of the former pre-primary students. In order to do so, the POs start looking only at the former PP students by saying, where is "*Our students*"? The teachers of primary schools expressed their dissatisfaction about the process of such practice of the POs. They considered this as a way of discrimination. According to them, all the students admitted in a class should be treated equally. It is not good to differentiate them according to their PP experience. There should not be any scope to treat them like 'our

student', 'their student', etc. They argued that this practice should be stopped. However, BRAC can help the former pre-primary students without disappointing the students and teachers of formal schools.

Secondly, there is a provision of tutorial support centre, popularly known as TSC. This is a supplementary tutorial programme for the former pre-primary students who are currently in grades II-V in the formal schools. The pre-primary teacher operates the TSC in the same venue of pre-primary class. The support is offered before or after the conduction of pre-primary class. Tk. 30 is taken from each participant of TSC and 15% seat is open for students having no PP experience. A total of 12,020 such TSC was in operation as of June 2007. Among the students 61% were girls. Non- pre-primary students comprised only 9.6%.

The teachers of pre-primary classes were offering supplementary tutoring to the students of grades II-V. However, they did not have much education and any training to teach the students of these grades. A logical question raised in our mind, how does it possible? What is the value of primary teacher training if these pre-primary teachers can provide supplementary tutoring to the students of primary schools without receiving any training? This issue needs to be explored rigorously through further study.

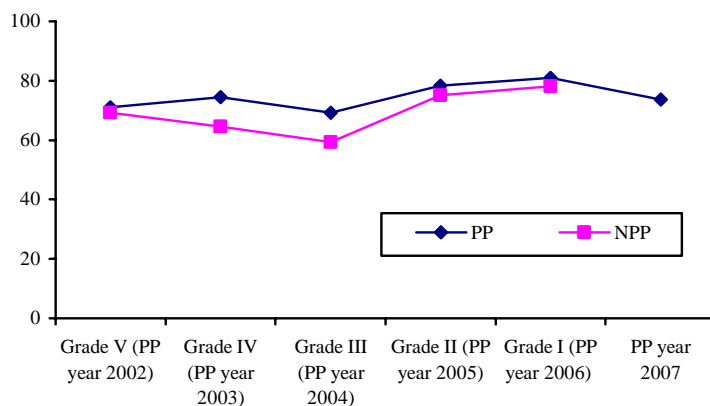
## SOCIOECONOMIC BACKGROUND OF PRE-PRIMARY STUDENTS

This section presents socioeconomic background of the pupils admitted in BRAC pre-primary schools. The study method allowed us to compare PP students with the students without PP orientation during last five years. The background information includes, age of pupils, parental education, poverty status of the households, participation in TSC, and religion.

### AGE OF STUDENTS

The official age of entry of the children to BRAC pre-primary schools is 5-6 years (BRAC 2006). However, children beyond this age group also admitted in pre-primary schools. Proportion of students below 5 years was not that much significant; thus, we added them with 5 years old students during analysis. Considering 4-6 years as correct age for BRAC programme we saw that 69-81% (figures varied by year) of the students fall in this category. This indicates that 19-31% of the pre-primary students were over-aged. If we compare these figures with similar figures of those who did not get pre-primary orientation but later enrolled in formal schools along with the pre-primary graduates, no difference was observed in most of the cases except in 2003 and 2004 (Fig. 3). In these two years, younger students were enrolled in pre-primary schools compared to their non-pre-primary peers.

**Figure 3. Percentage of pupils aged 4-6 years enrolled in pre-primary schools and their comparable non- pre-primary students**



*Note: PP = Pre-primary; NPP = Non-pre-primary*

Official age for primary schooling starts at six years, however, a good proportion of children of this age do not enrol in primary education. Sometimes, the parents of 7-8 years old children said that they were too young to enrol in school. With this practicality, fixing of age group for pre-primary is correct. However, it seems impractical to enrol 7-8 years old children in the pre-primary classes. Their proportion was not insignificant and thus needs careful attention (Table 4). It is difficult for teachers to deal with students of different age in the same grade. Especially, at this early age when difference of one year is a lot, which requires different effort of the teachers. Thus, it is important for BRAC to limit age for pre-primary up to six.

**Table 4. Age distribution of the students by year of pre-primary and status of pre-primary orientation**

Age (Year)	2002		2003		2004		2005		2006		2007
	PP	NPP	PP	NPP	PP	NPP	PP	NPP	PP	NPP	PP
4-5	25.9	20.4	21.8	18.9	18.9	18.3	26.4	25.9	27.0	27.0	10.6
6	45.1	49.1	52.6	45.7	51.0	41.1	52.3	49.1	54.2	51.2	63.6
7	24.9	23.9	17.1	22.6	20.3	28.6	15.4	16.2	15.6	14.3	20.8
8+	4.0	6.6	8.5	12.8	9.8	12.0	5.9	8.9	3.3	7.4	5.0

Note: PP = having pre-primary orientation, NPP = without pre-primary orientation

The findings show that proportionately more girls were within the fixed age range for pre-primary. However, the differences were not statistically significant (Table 5).

**Table 5. Percentage of students aged 4-6 years by sex and pre-primary orientation**

Year	PP			NPP		
	Boys	Girls	Total	Boys	Girls	Total
2002	68.7	73.0	71.0	67.3	71.5	69.3
2003	73.0	75.6	74.4	64.1	64.8	64.4
2004	67.5	70.8	69.2	55.8	63.8	59.4
2005	75.6	80.9	78.4	74.0	76.0	74.9
2006	76.9	85.1	81.0	77.8	78.7	78.2
2007	69.1	77.0	74.6	-	-	-

## PARENTAL EDUCATION

Data on years of schooling of the parents of the present and former pre-primary students and their comparable group were collected. This helped us identify the first generation learners in both the groups. Children with both the parents never enrolled in any school were considered as first generation learners. Table 5 shows that the pre-primary programme of BRAC caters a third or less number of its pupils from such (first generation learners) category. Year-wise analysis shows that the proportion of first generation learners in pre-primary schools increased from 29.5% in 2002 to 33.2% in 2004 and then decreased to 26% in 2006. In 2007, 30.9% of the pre-primary students were first generation learners.

Comparison of pre-primary with the non-pre-primary students shows little difference among them in terms of parental education (Table 6). During 2002-06, the proportion of first generation learners was slightly lesser in non- pre-primary group than the pre-primary group. An opposite scenario was found in 2006.

**Table 6. Percentage of first generation learners by sex and pre-primary orientation**

Year	PP			NPP		
	Boys	Girls	Total	Boys	Girls	Total
2002	32.3	27.2	29.5	26.5	27.0	26.7
2003	34.1	31.5	32.7	31.7	22.0	27.0
2004	33.5	32.9	33.2	31.7	24.7	28.5
2005	27.7	31.4	29.7	23.2	25.9	24.5
2006	25.8	26.2	26.0	33.7	26.4	30.2
2007	27.8	33.2	30.9	-	-	-

## POVERTY STATUS OF HOUSEHOLDS

We aimed to figure out the socioeconomic status of the pre-primary students using two approaches - poverty score card and self-reported food security scale. Poverty score card (PSC) is mainly used by the economic researchers to estimate poverty likelihood of the people on the

basis of 10 basic and simple indicators (BBS 2003). In this study we used PSC to explore the poverty likelihood between the students who enrolled in pre-primary schools and who did not.

Analysing the data collected through the PSC we found that poverty likelihood increased over time in both the study groups (Table 7). This may indicate that the chance of being poorer was increasing day by day at least in the study areas. In 2002, 2004 and 2006 the poverty likelihood was same for both the groups. However, in 2003 and 2005, the poverty likelihood of the pre-primary students was significantly higher than their counterparts.

**Table 7. Poverty likelihood of the students by PP orientation and year using PSC**

Current grade (in 2007)	Pre-primary year	Student group		Level of significance
		PP	NPP	
V	2002	31.3	30.4	ns
IV	2003	35.9	30.5	p<0.01
III	2004	38.6	35.6	ns
II	2005	39.6	35.3	p<0.05
I	2006	40.7	40.0	ns
PP	2007	43.5	-	-

**Table 8. Percentage distribution of households by food security status, year and PP orientation**

Food security Status	2002		2003		2004		2005		2006		2007
	PP	Non-PP	PP	Non-PP	PP	Non-PP	PP	Non-PP	PP	Non-PP	PP
Always in deficit	11.1	11.1	13.2	8.6	11.2	11.1	13.3	10.0	14.2	12.7	16.8
Sometimes in deficit	23.2	21.7	20.7	21.1	22.8	23.7	19.4	21.3	20.4	23.4	21.2
Balance	31.3	31.5	36.5	33.1	34.7	32.9	36.3	36.7	41.3	36.9	33.0
Surplus	34.3	35.7	29.5	37.1	31.3	32.3	31.0	27.0	24.1	27.0	29.0

In case of self-reported food security status, the parents of the students were asked to identify the status of their households in a four point scale considering all category of income and expenditure of their households during last one year. The stages were *always in deficit*, *sometimes in deficit*, *balance* and *surplus*. Similar to PSC, no clear-cut difference was found between the two groups of households in terms of food-security status (Table 8).

The above analysis with four different indicators, viz., age of pupils, parental education, poverty likelihood and household food security status, clearly shows that there was not much variation among the children enrolled in BRAC pre-primary schools and those did not.

It was a general expectation that BRAC would cater more vulnerable people than others in its development programmes, its education programmes were not out of this expectation. Our earlier studies showed that whereas at the national level, more than 34% of the students at primary level were first generation learners it was over 40% in BRAC primary schools (Ahmed *et al.* 2006; Nath *et al.* 2006). But this study showed that such difference did not exist in the case of pre-primary programme. We tried to investigate the reason behind this. BRAC establishes primary schools generally away from the formal primary schools, thus, covering the underprivileged children is easier. On the contrary, most of the pre-primary classes are situated at the premises of formal primary schools which lessen the scope to cover the underprivileged group. This might be an underlying cause behind no difference between socioeconomic background of pre-primary and non-pre-primary students.

The other related issue can be discussed here. Before starting pre-primary schools in the catchment area of a certain school, BRAC comes to an agreement with the respective schools

that on completion of pre-primary course all students would enrol in the respective schools for primary education not in BRAC primary schools. This surely limits parental choice of primary school for their wards. According to programme management, 96% of the pre-primary graduates enrolled in the respective schools, 2% in other but similar types of schools (GPS or RNGPS) and 2% in various other schools. If the parents know about this agreement beforehand, they might not be interested to send their children to pre-primary schools if they intended to provide primary education in any other school rather than these two types mentioned earlier.

During our investigation we found some poor parents who were willing to send their children in BRAC primary school after completing pre-primary course. These parents would be bound to send their children to GPS or RNGPS against their will. There was another group of parents who did not send their children to pre-primary due to such barrier; they wait for 2-3 years to admit their children in BRAC primary schools.

### RELIGION OF PUPILS

Among the first two cohorts of pre-primary graduates, proportion of Muslims was higher in the pre-primary group than the non- pre-primary group (those studying in grades IV and V). No difference was found between these two groups of pupils in the next three batches (Table 9). Among the pre-primary students the proportion of Muslims and non-Muslims were similar to that of the national statistics (BBS 2003). It could also be found that the rate of non-Muslim students were decreasing slowly amongst the pre-primary students.

**Table 9. Proportion of Muslim students by year and pre-primary orientation**

Year	Grade	PP orientation	
		PP	Non-PP
2002	V	89.9	85.7
2003	IV	90.4	68.9
2004	III	88.3	89.4
2005	II	89.6	89.8
2006	I	91.2	91.7
2007	PP	93.1	-

### PARTICIPATION IN TSC

Tutorial support centre is arranged to support the former pre-primary students in primary education. However, 15% of the TSC beneficiaries were taken from the non-pre-primary students. Of those studying in grades II-V in the formal schools, 30-35% participated in TSC in 2007. This figure was 15.8% among those in grade I. As expected, the rates were much lower among the non-PP group. It was about 15% among those studying in grades IV-V, which gradually decreased to 3% among those studying in grade I (Table 10).

**Table 10. Proportion of students participated in TSC in 2007 by year and PP orientation**

Year	Grade	PP orientation	
		PP	Non-PP
2002	V	31.6	14.6
2003	IV	36.3	15.6
2004	III	30.1	10.0
2005	II	35.5	8.9
2006	I	15.8	3.0

## CHAPTER 6

### PERFORMANCE OF THE STUDENTS

This chapter presents learning achievement of pre-primary graduates currently studying in various grades of primary schools. Performance of these students were compared with those had no pre-primary experience. A test was also conducted on those who have just completed pre-primary schools, however, no comparable group was taken into account.

#### PERFORMANCE OF PRE-PRIMARY STUDENTS

The pre-primary students of 2007 were brought under a test at the end of their course. Number of questions in the test was 25; 21 in Bangla and 4 in mathematics. There was no comparable group for this. Analysis revealed that on average, the pre-primary students correctly answered 19.4 questions, which was 77.8% of the total number of the questions in the test. The boys performed significantly better than the girls ( $p < 0.001$ ). Out of the 25 items, the girls on average correctly answered 19 questions and the boys 20 questions. Boys gave correct answers to 80% of the items and girls 76% of the items (Table 11).

**Table 11. Average performance of PP students by sex**

Issues	Boys	Girls	Both	Level of significance
Average number of correctly answering items	20	19	19.4	$p < 0.001$
% of correctly answering items	80.0	76.0	77.8	$p < 0.001$

Performance of the pre-primary students was analysed against their household food security status. A statistically significant difference was found in the average number of correctly answered items by food security status. For instance, the pupils from *always in deficit* households correctly answered 18.8 items, while it was 19.2 for those from *sometimes in deficit* households, 19.6 for *balance* category and 19.8 for *surplus* category ( $p < 0.03$ ). This indicates that the pre-primary provision of BRAC did not provide education equally to all categories of pupils, at least to those enrolled in 2007.

#### PERFORMANCE OF FORMER PRE-PRIMARY STUDENTS

This section provided test results of the former pre-primary students, currently enrolled in various grades in formal primary schools, and their comparable group who did not have pre-primary orientation. The test was conducted on Bangla and Mathematics. Number of questions in the test was 23 for grade I, 24 for grade II, 25 each for grade III and IV, and 28 for grade V. The findings revealed that the average performance of the former pre-primary students of grade I was significantly higher than their counterparts having no pre-primary orientation ( $p < 0.001$ ). No difference between these two groups of students (pre-primary and non- pre-primary) was seen in any other grades (Table 12). This finding has similarity with that of Begum *et al.* (2004). The earlier study considered only the students of first two grades. Thus, this study confirmed the findings of earlier study that the pre-primary course offered by BRAC can only made difference in grade I, after that the positive impact abolished at least in cognitive learning outcomes.

The students of grade I correctly answered at least 70% of the questions under test, which went down to below 50% for the students of other grades (Table 12). Subject-specific analysis

also showed that the pre-primary graduates of grade I performed better than their non-pre-primary counterparts in both the subjects (Table 13). Like as before, no difference was observed in any other grades. The students of all grades performed better in Bangla than Mathematics.

**Table 12. Mean number of correctly answered items by grade and pre-primary orientation**

Grades	Number of items	PP orientation		Level of significance
		PP	Non-PP	
I	23	17.4 (75.7)	16.3 (70.9)	p<0.001
II	24	11.6 (48.3)	11.9 (49.6)	ns
III	25	12.3 (49.2)	12.3 (49.2)	ns
IV	25	11.0 (44.0)	10.9 (43.6)	ns
V	28	13.1 (46.8)	12.7 (45.4)	ns

**Table 13. Mean number of correctly answered items by grade, subject and pre-primary orientation**

Grades	Bangla				Mathematics			
	No. of Items	PP	Non-PP	Sig.	No. of Items	PP	Non-PP	Sig.
I	8	6.5	6.0	p<.001	15	10.9	10.3	p<.01
II	11	5.8	5.8	Ns	13	5.8	6.1	ns
III	10	5.8	5.8	Ns	15	6.5	6.5	ns
IV	10	5.0	4.9	Ns	15	6.0	6.0	ns
V	11	7.6	7.3	Ns	17	5.5	5.4	ns

Table 14 provided analysis of performance by sex. No gender difference was found in the performance of any grade of students whether they received pre-primary course or not. Similar analysis was done separately for Bangla and Mathematics; provided in Annex 1 and 2.

**Table 14. Mean number of correctly answered items by grade, pre-primary orientation and gender**

Grades	No. of Items	PP orientation					
		PP			Non-PP		
		Boys	Girls	Sig.	Boys	Girls	Sig.
I	23	17.4	17.4	Ns	16.0	16.8	ns
II	24	12.6	12.1	Ns	12.6	12.7	ns
III	25	12.8	11.8	Ns	12.0	12.5	ns
IV	25	11.1	10.8	Ns	11.1	10.7	ns
V	28	13.4	12.9	Ns	13.0	12.3	ns

ns = not significant at p = 0.05

In this study we did not aim to determine the causes behind difference or similarity between the performances of pre-primary and non-pre-primary students. However, our investigation showed difference only in the first grade of primary education, where the pre-primary experienced pupils was ahead of the pupils having no pre-primary orientation. This was happened probably due to the contribution of BRAC pre-primary programme. Similar performance of the students of both the groups indicated that efforts made by pre-primary programme were unable to continue such difference from grade II. The reason of this must remained in the pre-primary programme, if we believed that such programmes gave strong footing to the children for further education. One strong argument for pre-primary education for the poorer communities was to help them overcoming poverty-related factors in educational attainment. As we did not see it happening in BRAC programme, there was a need of serious rethinking about the programme in line of making it effective for the recipients.

### Achievement by socioeconomic status

Students overall performance in terms of their household food security status showed a mixed result. For instance, statistically significant improvement in students' performance in terms of improvement in household food security status was found in the first three grades and no difference was found in later two groups. The students with *surplus* food security status of the first three grades correctly answered two more questions than those from *always in deficit* households. Similar analysis done separately for Bangla and Mathematics was provided in Annex 3.

**Table 15. Mean number of correctly answering items by food security status and grade**

Socioeconomic status	Grade I (23)	Grade II (24)	Grade III (25)	Grade IV (25)	Grade V (25)
Always in deficit	15.3	11.0	11.5	11.4	13.0
Sometimes in deficit	16.9	11.3	11.9	10.3	12.6
Balance	17.2	11.8	11.8	11.1	12.6
Surplus	17.3	13.4	13.4	10.9	13.2
Significance	p<0.001	p<0.05	p<0.01	ns	Ns

When the above analysis was done separately for the students having pre-primary orientation and not, the difference in performance was found in former pre-primary students of grade I and non- pre-primary students of grades I-III (Table 16). A question might be raised about the difference between pre-primary and non- pre-primary students against each of the food security status. In most of the cases no statistically significant difference was observed.

**Table 16. Number of correctly answered items by socioeconomic status and pre-primary orientation of the students of different grades**

Food security status	Grade I (23)		Grade II (24)		Grade III (25)		Grade IV (25)		Grade V (25)	
	PP	Non-PP	PP	Non-PP	PP	Non-PP	PP	Non-PP	PP	Non-PP
Always in deficit	15.7	14.7	11.0	10.9	12.6	10.3	11.6	11.0	13.1	13.0
Sometimes in deficit	17.3	16.6	11.4	11.2	11.9	12.0	10.5	10.1	12.7	12.4
Balance	17.9	16.3	11.8	12.1	13.1	11.7	11.1	11.2	12.8	12.4
Surplus	17.6	17.1	11.8	12.4	12.3	13.7	10.7	11.1	13.7	12.9
Level of significance	p<.01	P<.02	Ns	p<.08	ns	p<.01	ns	ns	Ns	ns

Though we desired that all students, irrespective of their socioeconomic background, would learn equally from the education provision; the findings clearly showed that it did not happen always. In the case of pupils with pre-primary education, an unequal performance was found initially, which remained same up to grade I. These children from grades II-V achieved equally ignoring their household background. On the other hand, household background of the non-pre-primary student influenced their performance during first three grades which disappeared afterwards. A possible cause behind this could be that the PP graduates become accustomed with the culture of formal school system after certain period of schooling. This proposition could be nullified through other studies conducted under *Education Watch*.

We analysed the data to see whether TSC has any impact on learning achievement of the pupils. Our analysis revealed that the pupils who joined in TSC and who did not, achieved equally in the test. Similar result was obtained when pre-primary oriented pupils were analysed separately. The findings indicated the relevancy of existence of TSC. We did not look at TSC intensely, so we were unable to say much about it. A general question came in our mind, how could these teachers run TSC who were trained for pre-primary education? Without having any training on imparting primary education, how could they provide tutorial support to the pupils of primary classes? A deeper look at the TSCs was thus needed. If these were unable to contribute any impact on the students learning there was no reason to keep them in place.

### DISCUSSION AND POLICY RECOMMENDATIONS

Pre-primary education is limited in Bangladesh. Only about 13.4% of the children aged 4-5 years receive pre-primary education (Nath and Sylva 2007). Large urban-rural and socioeconomic difference is also a reality in pre-primary enrolment. There is no provision in the government system to provide such education to the children, thus, there is no government approved curriculum for this. However, a number of NGOs and the English medium schools offer this following various curriculum. It is interesting that the government permitted BRAC to open pre-primary classes in the premises of the government and registered non-government primary schools, and outside. It is a clause of the permission that the pre-primary graduates would enrol in the formal schools not in BRAC non-formal primary schools. With this engagement with the government, BRAC operates 20,140 pre-primary classes all over the country, which can meet only 8% of the need. However, BRAC's pre-primary programme is the largest in the country. It is, thus, important to make a comprehensive evaluation of this programme including curriculum, textbooks, teachers, teacher training, admission procedure, background of the students, classroom teaching learning provisions, and the quality of output. This study considered all the above-mentioned issues, and attempted to evaluate the system in a holistic manner. The earlier chapters presented the findings, and this final chapter summarises those offering some discussions including policy suggestions.

Curriculum is considered as the most important part of any education programme. The other elements of the programme should be set according to the demand of the curriculum. In other words, implementation of curriculum is the main task of any education programme. Thus, it is important to have a written curriculum. A written curriculum can help all concerned to understand what to implement and how. It is also helpful in assuring transparency in programme implementation.

There is no written curriculum for pre-primary programme of BRAC. A written curriculum is important for BEP as well as for others who want to learn from BRAC experience and implement it at their own context. It is surprising that how the specialists of BEP could produce the textbooks and the teachers guide without doing the prior task i.e., giving a written shape of the curriculum. The answer might recline in the long experience of the leading persons of BEP who prepared these materials. BRAC experimented pre-primary classes twice, once in 1988 and again in 1997. In addition BRAC operates an intensive countrywide non-formal primary education programme including some community and formal schools during the last two-and-a-half decades. Experiences gained from all these activities in both formal and non-formal schools BRAC education authority and the curriculum specialists achieved such skills. They at least knew the contents needed to be learned to get prepared for primary education and how to deliver these. Scanning of the textbooks also evident that the book writers were aware of the texts used in the kindergarten sections of the English medium schools. A tendency to incorporate some of the delivery concepts of the kindergarten texts in the textbooks and teacher guide was also evident. Thus, there is little to say about the deficiency of the textbooks and the teacher guide except those mentioned in Chapter 3.

There is a dilemma with the teacher guide. In one hand, most part of it is so well written that the teachers can conduct classes following this. Way of teaching, materials to be used and the assessment procedure are incorporated in it. On the other hand, there is ample scope that the teachers would be over-dependent on it, and, thus, would loose their creativity over time.

How much the teachers would be over-dependent on the guide and to what extent they would lose their creativity are, however, linked with the instructions they receive during various types of teacher training.

The same textbooks have been using for the last seven years without revision, but the teacher guide has been revised to some extent. However, the changes made were not incorporated in the printed guidebook rather transmitted to the field offices as handouts or orally. The field-level managers and the POs transmitted the handouts or oral instructions to the teachers during one-day monthly refresher training. The teachers generally took notes or tried to memorise the instructions. This practice should be changed through providing instructions in writing. It is understood that making changes in the teachers guide is not always possible especially due to costs. But written instructions can be given to the teachers in addition to the teacher guide during the training sessions.

To find out an appropriate, feasible, and sustainable implementation procedure for pre-primary education, BRAC experimented twice before commencing it. The experiments were done on curriculum, prospective pupils, teachers, technique for teacher training, supervision, operational costs and other related issues. We observed that BRAC was still changing the implementation strategies. This indicates that the implementers did not run the programme in a static manner. A lively programme always welcomes changes. But one of such changes may raise question as it seems to us that the change went against BRAC's objective of women's enhancement and quality of education as well. Earlier women irrespective of their marital status were recruited as teachers. In 2007, the policy has changed in favour of married women. Some problems regarding this at the grassroots level have been mentioned in Chapter 4. The only justification in favour of married women is their stability at the place of recruitment. If it is made open to all women, the chance of getting current students of colleges and high schools as teachers may increase, who were supposed to be better as teachers due to their continuous link with education. This may be also helpful in maintaining quality of education. There is evidence that a small number of girls dropped out from their college education and got married in order to carry out the job and to serve their poor family. This is unfortunate because these girls could get more with education if at the same time they had the teaching job. We found in several cases that some female students were not given the job because they were unmarried. Nonetheless, the policy does not go with the fundamental development policy of BRAC. The programme should think of recruiting teachers irrespective of their marital status considering the risk of a portion's dropout due to marriage after serving for a period.

The field level managers and the POs faced difficulty in recruiting teachers and renting out the schoolhouses due to, in their language, low investment. They opined that monthly remuneration of the teachers and amount for renting schoolhouse should be increased. As they said these two tasks were the most challenging in operating the programme. Lots of motivational words needed. It was difficult for any PO to manage such a situation if s/he did not have such motivational capacity. When we talked with some of the house owners they also expressed that they became looser as they let out their houses to BRAC. However, they praised the motivational capacity of the POs. One of the house owners told that the BRAC staff were the 'champion in oral expression' but not in paying adequate rent for the schoolhouse. The other added, but *Shudhu kothai to chira veje na*, meaning that oral motivation was not enough. To some of the POs over motivation lessened their personality. The issue of price hike of the essentials also came in the discussion. Thus, we suggest that BEP can think of increasing teacher remuneration and schoolhouse rent considering the competitive market price.

Earlier the BRAC primary school graduates, were studying in higher grades in secondary schools or colleges, were given preference in recruiting teachers. This was a good attempt to create job opportunities for former BRAC primary school students. Over emphasis on this criteria might be obstacle in getting good people as teachers. As the policy did not work

properly, BRAC changed the policy. Now it was open to all in a competitive basis. Changing policy as per need of the programme beneficiaries was appreciable.

Tutorial support centre and follow-up of the former pre-primary students were two issues needed to be discussed. Though both were mainly arranged for the former pre-primary students but the non-pre-primary students were also eligible for the first one. TSC is the arrangement of supplementary tutoring to what is taught in the formal schools, which is increasingly spreading at all levels of our education. A general opinion in favour of this is that the teaching learning provision at school level is not enough to do well in the examinations. Again, in a competitive society, parents invest as much as possible on their children in order to protect them from lagging behind. Of these two logics, the first one might be best suited for former PP students especially for those having no support at home due to lack of parental education and financial constraints as well. Follow-up of the former PP students in the formal primary schools is done to maintain a credible status of them. The formal schools are systematically visited by the POs to see attendance, cleanliness and academic progress of the former pre-primary graduates. This can also be supported in line of the above logic. But the issue raised here is that how much is it logical to arrange the above two support services when there is little or no difference between the pre-primary and non- pre-primary students in terms of parental education and poverty level. Due to their similarity in terms of these two characteristics all students in the formal schools should be equally eligible for both TSC and follow-up system. One may blame BRAC for its special attention to a section of the formal school students only because of their earlier linkage with BRAC. As we have seen that when the POs visit the formal schools they call the former pre-primary students saying that *Amader bachhara utthe darao* (stand up our children). Seeing this happening twice a month in a regular fashion may create inferiority complex among those who did not go through pre-primary classes. The teachers of formal schools did not like this approach due to disparity element of it. BRAC can think of opening up these two activities (TSC and follow-up) to all students of formal schools. This might also help BRAC to be credible to the society in general. A separate study on TSC and follow-up activities might be helpful to explore a justified policy.

No one is teacher by born but through right training s/he can be a good teacher. The foundation and the monthly refresher courses play vital role in preparing the teachers for BRAC pre-primary education. Interaction between POs with teachers when they visit schools is another occasion to help teachers to perform well. It was evident that due to time constraints, the monthly refresher courses did not allow the participants to get prepared for the classes for next month. It is because of some administrative activities that took first few hours of the day. A number of refresher courses that we have observed could not satisfy us in terms of teacher preparation. The trainers did not try to explore the innate quality of the teachers or in other words they did not try to use the creativity of the teachers. Both the trainers and the trainees discussed among them how can they best follow the way written in the teacher guide. We also observed a reflexion of this kind of activities in the classrooms. It is mostly due to lack of understanding and to some extent due to lack of time. Everyone wanted to follow the instructions written in the guide book. Guidebook is a helping instrument, which should never be considered as the main instrument. The main instrument is the teachers. Exploration of intellectual ability and creativity of the teachers in the training sessions and of the students in the classrooms were the main tasks of any education programme. This was not seen to be happening in implementing curriculum in BRAC pre-primary education programme. It would not be unjust, if one links the well written teacher guide with the lack of preparation of the teachers in training sessions. There might be an intention to overcome the lacking of the teachers through well written teacher guide. We should not forget that given the chance everyone has the capacity to perform well. We must believe that the women recruited as teachers for pre-primary education have the capacity to teach well and enhance students' creativity if a favourable atmosphere can be created to flourish the creativity of the teachers. The right place to do so is the teacher training session. Such atmosphere has not been created in

the programme. Teacher training component needs to be carefully looked at. If necessary, duration of foundation training should be increased. There might have a linkage between such performances of the teachers and having no difference between pre-primary and non-pre-primary students after two years of pre-primary orientation.

In this case the students started their education life through pre-primary education. The first person, the students met closely outside their home, was the teacher of pre-primary school. If these teachers were not creative enough, if they did not have the capacity to create a dramatic atmosphere as and when necessary, if they did not have the freedom of choice; how could they be good teachers for pre-primary classes? Simply not possible even if there was no well written teacher guide. The same was true for the POs who supervised the schools and the trainers who trained the teachers.

The official entry age for BRAC pre-primary classes was 5-6 years (BRAC, 2006), which overlapped one year with the official entry age in formal primary education. This would not create any problem until all children enrolled in primary schools at the age of six. Household survey of *Education Watch* showed that about a third of the children of age six did not enrol in school and the preferable age for primary entry is about eight. Thus, with the current situation, fixing 5-6 years for pre-primary enrolment BRAC was helping children entering in school earlier. However, at the same time it was true that as the enrolment in primary schools was increasing BRAC may find difficulty in near future in getting children of age six to enrol in pre-primary classes. Again, if the situation is not carefully observed a negative result may occur. Due to BRAC's age preference and expansion of the programme, families may be habituated sending their children to primary schools at age seven instead of six. It is, thus, advisable that the age group for pre-primary may continue for few years, which would need to be fixed at 4-5 years in near future. BRAC should be careful that the provision of pre-primary does not create any obstacle to six years old children's enrolment at grade I. The other issue is the proportion of boys and girls in pre-primary schools. As we have discussed with example in Chapter 4 that there is no need of such differentiation, because, these children ultimately enrolls in formal primary schools. An equal number of boys and girls are, therefore, recommended to be enrolled in pre-primary classes.

In terms of poverty no difference was observed between the pupils who enrolled in BRAC pre-primary and who did not. However, a tendency was observed to take the first generation learners in pre-primary classes. As per the arrangement, the pre-primary graduates were supposed to enrol in formal primary schools only. The question is whether BRAC is limiting the choice of the students to enrol in other types of schools by admitting in pre-primary classes.

Of the four domains that motivated the expansion of pre-school education in developing countries were cognitive advantage, social adjustment, family functioning and parenting practice, and reduce social inequality (UNESCO 2007). In this study we could only see the first domain. Our study showed that regarding cognitive advantage the pre-primary oriented students could only go above their peers having no pre-primary orientation only in grade I. No difference between these two groups of students was seen in any other grades. This finding might frustrate those who wanted to see the sustainability of gap for longer period. However, findings of other studies had similarity with our finding including the one done five years back on BRAC pre-primary education programme (Begum *et al.* 2004; Cotton and Conklin 2001). Cotton and Conklin (2001) found that the impressive cognitive gains result from pre-school participation, in most cases, completely 'wash out' by the end of second grade. That means, before ending the primary grades, there was no longer any intelligence quotient (IQ) or achievement differences between children who had attended pre-school programmes and demographically similar children who had not. Zigler (1986) strongly said, "We simply cannot inoculate children in one year of pre-school against the ravages of a life of deprivation."

Although the other studies on pre-school programmes focused on some non-cognitive outcomes, which we did not conduct in this study.

Along with the impressive studies those highlighted importance of pre-school education, especially, for those who were living with poverty alternative evidence was also available at least in terms of cognitive development. The BRAC pre-primary education programme falls in the second category as was seen in this study and the previous one by Begum *et al.* (2004). In this circumstance, in one hand, BEP should not be over ambitious about the success of the programme. On the other hand, it should try to do better to fall in the first category through giving more importance in the preparation of the teachers, the POs and the teacher trainers.

Many researchers also argued that the greatest benefits of pre-school experience occur in the non-cognitive realm. A number of longitudinal studies have followed pre-school graduates all the way into adulthood; identified many positive and significant relationships between preschool participation and task-related, social, and attitudinal outcomes (McKey *et al.* 1985, Powell 1986, Schweinhart *et al.* 1986). We think that, in order to explore the long-term and non-cognitive outcomes of BRAC pre-primary course, longitudinal studies should be undertaken.

Before wrapping up this chapter we would like to highlight the following policy suggestions once again.

- There should be a written curriculum for BRAC pre-primary education programme. This will help assuring transparency in programme implementation and will help others who want to replicate BRAC experiences in their own context. The BEP curriculum specialists can do it alone or they can have partnership with RED researchers.
- There should not be any choice in teacher recruitment in terms of their marital status. Educational background and enthusiasm about early child education should get priority in this regard. These are important for the sake of quality of education and for the overall women development.
- Preparation process of the POs, trainers and teachers needs to be carefully looked at. It is important that these people are creative, enthusiastic, independent thinker, and able to apply freedom of choice. Duration of foundation training can be increased to make them better prepared to work with children. Aim of such training programme should be to make a cadre of people with special skills in early-years education.
- A number of issues were raised in Chapter 3 regarding revision of textbooks including some mistakes which require immediate action. Instead of oral instructions, written instruction should be given to the teachers during monthly refresher course.
- Considering the recent price hike of the essentials, remuneration of the teachers and amount of monthly rent of schoolhouse needs to be revised in the context of competitive market price.
- Current provision of tutorial support centre and follow-up service to the former pre-primary graduates discriminate students. These should be opened up to all students in formal schools irrespective of their pre-primary orientation. This can be a window for working with the teachers and the school managing committee (SMC) members.
- Existing entry age of children into pre-primary schools cannot continue for more than a few years due to increased enrolment rate of children aged 6 years into primary schools. It is, thus, suggested to change the entry age to pre-primary schools as 4-5 years after a certain period. As there is no strong reason to have imbalance sex-ratio among the students of pre-primary class, an equal proportion of boys and girls should be admitted.
- Longitudinal and comparative studies should be undertaken to capture the non-cognitive development of the pre-primary graduates.

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## ANNEXES

**Annex 1. Mean of correctly answered items in Bangla by grade, sex and PP orientation**

Grade	No. of Items	PP orientation					
		PP			Non-PP		
		Boys	Girls	Sig.	Boys	Girls	Sig.
Class I	8	6.5	6.5	ns	5.8	6.3	P<.01
Class II	11	6.0	5.6	ns	5.7	5.9	ns
Class III	10	5.8	5.8	ns	5.5	6.0	ns
Class IV	10	5.0	5.0	ns	4.9	4.9	ns
Class V	11	7.6	7.6	ns	7.4	7.1	ns

**Annex 2. Mean of correctly answered items in Mathematics by grade, sex and PP orientation**

Grade	No. of Items	PP orientation					
		PP			Non-PP		
		Boys	Girls	Sig.	Boys	Girls	Sig.
Class I	15	10.9	10.9	ns	10.1	10.5	ns
Class II	13	5.9	5.8	ns	6.1	6.0	ns
Class III	15	7.0	6.1	ns	6.5	6.5	ns
Class IV	15	6.1	5.8	ns	6.2	5.8	ns
Class V	17	5.8	5.2	ns	5.6	5.2	ns

**Annex 3. Number of correctly answered items by socioeconomic status of the students and subjects and grades**

Socioeconomic status	Grade V		Grade IV		Grade III		Grade II		Grade I	
	Bangla (11)	Maths (17)	Bangla (10)	Maths (15)	Bangla (10)	Maths (15)	Bangla (11)	Maths (13)	Bangla (8)	Maths (15)
Always in deficit	7.4	5.6	5.1	6.3	5.3	6.2	5.6	5.4	5.8	9.4
Sometimes in deficit	7.4	5.2	4.7	5.6	5.6	6.3	5.7	5.6	6.3	10.7
Balance	7.3	5.2	5.0	6.2	5.6	6.2	6.2	5.8	6.4	10.8
Surplus	7.6	5.7	5.0	5.9	6.3	7.1	6.1	6.1	6.4	10.9