Basic competencies of the graduates of BRAC's non-formal schools: levels and trends from 1995 to 1999

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Overview

Based on the Declaration of the World Conference on Education held in Jomtien in 1990, BRAC designed an instrument to measure the level of basic education of Bangladeshi children. The Research and Evaluation Division of BRAC regularly monitors the performance of the graduates of BRAC's non-formal schools through this instrument. This report presents the basic educational status of the graduates of three cohorts of 1995, 1997 and 1999. Three independent samples were drawn from three cohorts and the learners were tested after nine/ten months of their graduation. The sample from 1995 cohort was also tested in 1997 and 1999; and the sample from 1997 cohort was tested in 1999. Children from three systems of BRAC schools were assessed: those in Non Formal Primary Education (NFPE) and in Basic Education for Older Children (BEOC) which was directly operated by BRAC, and NFPE under the Education Support Programme (ESP) which are operated by other NGOs with support from BRAC. The sample sizes for the three independent surveys were 1259 each. Among the 1,259 graduates of 1995 and 1997 each, 812 of 1995 and 991 of 1997 could be traced in 1999; these are respectively 64.5% and 78.7% of the original samples. Of the sample of 1995 graduates only 54.3% were common in all the three surveys.

Major findings

The graduates of 1999

1. On average, 68.4% of the graduates of 1999 satisfied all the four criteria of basic education viz., reading, writing, numeracy and life skills knowledge. This rate was 67.8% among the graduates of NFPE, 68% among the graduates of BEOC and 76.8% among the graduates of NFPE-ESP.
2. Thirty percent of the graduates possessed partial basic education and 1.6% of the graduates could pass none of the criteria.
3. Gender variation in the level of basic education was observed in favour of the boys. This variation was observed due to significantly better performance of the NFPE boys than the girls of similar type of schools.
4. Nearly three quarters of the graduates satisfied the literacy criteria i.e., reading, writing and numeracy. Literacy rate was 81.3% among the boys and 72% among the girls.
5. Skill-wise analysis shows that, on average, around 85% of the graduates satisfied the criteria of life skills, reading and writing; this rate was 91.7% in numeracy.
6. Among the six groups of students the boys of NFPE-ESP did best (77% had basic education and 83.3% had literacy) and the girls of NFPE did worst (with 64.8% satisfying basic education criteria and with 70% literacy rate).

Overall change: 1995 to 1999

7. The overall performance of the programme is decreasing significantly. On average, the proportion of graduates satisfied the criteria of basic education was 73.7% in 1995, 69.3% in 1997 and 68.4% in 1999. The literacy rates were 78.5%, 75.4% and 74.8% respectively in 1995, 1997 and 1999.
8. There was no gender variation in the levels of basic education and literacy among the graduates of 1995 and 1997; however, boys outperformed their peer girls in

1999. Such gender difference was found only among the graduates of NFPE directly operated by BRAC.

9. Skill-wise analysis shows that the performance declined in two areas viz., reading and numeracy, however was constant in life skills and writing.
10. Numeracy was the area where gender difference was found among the graduates of all the three cohorts. Boys did significantly better than the girls in all the three surveys.

1995 graduates: 1995 to 1999

11. Among the graduates of 1995, who were followed-up in 1997 and 1999, the level of basic education increased over the period, from 74.2% in 1995 to 84.3% in 1997 and 85.7% in 1999. This was because the graduates could retain their knowledge for longer period.
12. The level of basic education of the graduates of 1995 was increased in three areas viz., life skills, reading and numeracy. Ninety-eight percent of the graduates satisfied the criteria of these three assessment areas separately. However, performance in writing increased from 84.4% in 1995 to 90.2% in 1997 and then decreased to 87.3% in 1999.

1997 graduates: 1997 to 1999

13. The performance of the graduates of 1997 who were interviewed in 1997 and again traced in 1999 increased over two years (71.4% to 79.9% in basic education and 76.7% to 83.5% in literacy). Skill-wise, the increase was seen in two areas viz., life skills and reading.
14. The performance of the graduates of NFPE-ESP was worst in 1997, however it overcome the situation in 1999 and reached at its performance of 1995.

Conclusions

1. The overall performance of the programme is gradually decreasing.
2. Gender gap against girls is increasing in the performance of the graduates.
3. The level of basic education of the ex-graduates increased over the period due to higher knowledge retention rate and admission in formal schools.

Introduction

About ten years ago, the World Conference on Education for All (WCEFA) set a new goal for the developing countries to educate the people of these countries with basic education (WCEFA, 1990). The Declaration of the Conference did not limit basic education only by the 3 R's (viz., reading, writing and numeracy) but the idea of life skills was also incorporated in it. As a signatory to the declaration of this conference, Bangladesh is to impart basic education to at least 80% of school-age children by the year 2000 (Primary and Mass Education Division, 1995). In recent years, the government of Bangladesh has committed itself greatly to education. Compulsory primary education was introduced in 1993. Competency-based curriculum was implemented since 1992. Education for girls has been made free up to grade eight. Apart from these public efforts, several non-government organisations (NGO) have taken up programmes on education for children and adults. One recent estimate shows that NGO operated non-formal schools cover about 8.5% of the currently enrolled children, a three-quarter of which are in BRAC schools (Chowdhury et al., 1999). BRAC started education programme for children in the mid-1980's with special emphasis on girls' enrolment and provides quality education. There are about 40,000 non-formal schools currently operating in Bangladesh, of which nearly 35,000 are operated by BRAC (Chowdhury et al., 1996; BRAC, 1997).

In the light of the Jomtien conference and with the assistance of UNICEF Dhaka, the Research and Evaluation Division (RED) of BRAC developed an innovative methodology called the Assessment of Basic Competencies (ABC) and conducted a nation-wide study in 1992 to assess and measure the level of basic education of children (11-12 years) of Bangladesh (UNICEF, 1992; Chowdhury et al., 1994). The study was repeated using a more refined instrument in 1993 (Nath et al., 1993) and again under *Education Watch* in 1998 (Chowdhury et al., 1999). It was observed that at national level, the basic competency rate among children was not improved much for the last five years, 26.7% in 1993 to 29.6% in 1998, less than one percentage point per annum.

BRAC Education Programme (BEP) operates two models of non-formal primary schools for children of two different age groups viz., the Non-Formal Primary Education (NFPE) and the Basic Education for Older Children (BEOC). In 1985, the NFPE programme began as a three-year programme for children aged 8-10 years. In 1988, the BEOC began as a two-year programme for children aged 11-14 years. BEOC was extended to a three-year programme in 1993 and NFPE has been extended to a four-year programme in 1998. Another initiative of BRAC is the Education Support Programme (ESP). This programme helps other NGOs to replicate BRAC's model of non-formal primary education in their working areas. BRAC provides technical and financial support to the participating NGOs through the ESP. The BRAC education programme offers a replicable model capable of achieving basic literacy and social awareness among the children of the poorest households. The teaching materials were developed by BRAC to meet the needs of the children (BRAC, 1993). The books of BRAC schools are produced by BRAC broadly following the government curriculum. A review of the textbooks, instruction materials, and teacher guides used in BRAC schools found that the system covered most of the terminal competencies of the National Curriculum and Textbook Board (Ghosh, 1998). The graduates of BRAC schools have the option of continuing their education in formal schools. Most of the BRAC schools are in the rural areas and the goal of all these schools is to enrol at least 70% girls.

In 1995, the Research and Evaluation Division of BRAC launched a systematic and longitudinal assessment of basic education of the graduates of BRAC schools. The system is popularly known as 'tracer study'. Under the system a representative sample of the BRAC school graduates of 1995 were assessed in the same year (Nath et al., 1996). In 1997, an attempt was made to trace these graduates, however, 75% could be traced and assessed. Again, a new cohort of 1997 graduates was assessed in the same year (Nath et al., 1998). In 1999, another cohort from 1999 graduates was included in the system and also attempts were made to trace and assess the interviewed graduates of 1995 and 1997. This report presents mainly the findings from the latest surveys, however, some findings from the previous surveys were also considered for comparison.

Objectives

The study aimed to:

1. assess the existing level of basic competencies of the children who graduated from BRAC's non-formal schools in 1999;
2. look at the trend in the level of basic competencies of the graduates of BRAC's non-formal schools over a period of four years;
3. look at the trend in the level of basic competencies of the graduates of 1995 over a period of four years; and
4. find a change in the level of basic competencies of the graduates of 1997 over a period of two years.

Methodology

The methodology used in this study was developed in Bangladesh and was used in other studies on Assessment of Basic competencies (ABC) (UNICEF, 1992; Chowdhury et al., 1994; Nath et al., 1993). The methodology was developed in consultation with experts from different universities and with organisations at home and abroad.

Definition of basic competency

Considering the definition of 'basic education', 'basic learning needs' and 'learning achievement' by the Inter-Agency Commission of the World Conference on Education for All (WCEFA, 1990), the advisory group of 1992 ABC survey modelled the following definition of 'basic competency' for Bangladesh:

> *Basic education will refer to education intended to develop basic learning skills (i.e., the 3R's) as well as some basic life skills necessary for the children to survive, to improve the quality of their lives and to continue learning.*

The instrument to measure basic education

The instrument, designed in accordance with the definition, had four sections: reading, writing, numeracy and life skills/knowledge. A variety of questions were set

for each section. The modified instrument used in the 1993 national survey was used in this survey with a total of 42 items (questions).

There were ten questions under 'life skills/knowledge' section. Six of them were on health, one on poultry/livestock, one on population, one on basic attitude about gender, and the last one was on specific knowledge of the outside world.

The 'reading skills' section consisted of three parts. The first part contained five words with different difficulty levels, the second part contained a sentence with five words, and the third part included a comprehension passage which was related to life in Bangladesh and conveyed a development message.

The 'writing skills' section of the instrument had four parts, viz., writing own name and the name of village, words, a sentence, and a letter.

There were six parts in the 'numeracy skills' section, viz., counting, reading numbers, writing numbers, addition, subtraction and mental arithmetic. For further details on the design and its modification see: Chowdhury et al., 1992 and Nath et al., 1993.

Information on a number of socio-economic characteristics of the graduates and their parents and households were also collected from parents/guardians.

Defining the minimum level of competency

Children satisfying the following criteria were considered to have 'basic competency', as in all previous surveys:

a) answering 'correctly' at least seven of the ten life skill questions;
b) answering 'correctly' at least three of the four questions from comprehension passage;
c) 'correctly' communicating a given message through writing a letter to his/her father or any relative; and
d) answering 'correctly' at least three of the four mental arithmetic questions.

The study population

Three groups of children who completed a three-year cycle of non-formal schooling under BRAC Education Programme (BEP) were considered for this study. These are the graduates of NFPE and BEOC directly operated by BRAC and NFPE operated under ESP. BRAC-operated schools considered for the study are located in the same areas as its rural development programme (RDP). To obtain the answers to the first two objectives, a representative sample of children who graduated at the beginning of 1999 were tested after nine months of their graduation. To achieve the third and fourth objectives, attempts were made to trace the graduates of 1995 and 1997 who were tested by Nath et al., (1996 and 1998) respectively in 1995 and 1997. Table 1 gives an idea about the population of the study.

Table 1 Number of schools completed and students graduated under non-formal education programme of BRAC in rural Bangladesh by type of school and year

Year	Type of schools			Total	Approximate number of students graduated
	NFPE	BEOC	NFPE-ESP		
1995	3,008	856	129	3,993	119,790
1997	9,231	2,236	85	11,552	378,708
1999	6,452	2,230	930	9,612	293,166

The following pages describe sampling, field operation, interviewers' training and data quality of the first round interviews of 1999 graduates, the second round of interviews of 1997 graduates and the third round interviews of 1995 graduates. Detailed information about the first two rounds of interviews of 1995 graduates and first round of interviews of 1997 graduates are available elsewhere. However similar, interested readers are requested to see Nath et al., 1996 and 1998.

Sampling

The 30 cluster sampling procedure used previously in ABC surveys was used to select the graduates of 1999 for this study. For BRAC operated schools, 30 teams were selected separately for each type of school, applying probability proportional to size

with systematic sampling technique. From each team two schools were selected, one at random and one adjacent to the first one. Lists of children who graduated from these schools were compiled from which two separate samples of 7 boys and 7 girls were taken at random. A similar procedure was followed for NFPE and BEOC schools.

For ESP schools, the list of 172 NGOs that completed three-year cycle of NFPE schools in 1999 was collected. Thirty NGOs were selected at random. From each NGO two schools were randomly selected. From the graduates of the two schools two separate samples of 7 boys and 7 girls were selected randomly.

Table 2 The study sample

	Graduates of 1995			Graduates of 1997		Graduates of 1999	Graduates of 1995
	surveyed in 1995	resurveyed in 1997	resurveyed in 1999	surveyed in 1997	resurveyed in 1999	surveyed in 1999	common in 97 & 99
NFPE							
Boys	210	164 (78.1)	143 (68.1)	211	174 (82.5)	210	124 (59.0)
Girls	210	168 (80.0)	132 (62.8)	210	168 (80.0)	210	117 (55.7)
Both	420	332 (79.0)	275 (65.5)	421	342 (81.2)	420	241 (57.4)
BEOC							
Boys	207	151 (72.9)	129 (62.3)	210	168 (80.0)	207	108 (52.2)
Girls	213	154 (72.3)	120 (56.3)	210	154 (73.3)	213	102 (47.9)
Both	420	305 (72.6)	249 (59.3)	420	322 (76.7)	420	210 (50.0)
NFPE-ESP							
Boys	191	130 (68.1)	143 (74.9)	207	161 (77.8)	209	104 (54.5)
Girls	228	178 (78.1)	145 (63.6)	211	166 (78.7)	210	129 (56.6)
Both	419	308 (73.5)	288 (68.7)	418	327 (78.2)	419	233 (55.6)
Total	1259	945 (75.1)	812 (64.5)	1259	991 (78.7)	1259	684 (54.3)

If any problem arose due to absence of selected respondent in the house and so on adequate number of children was randomly selected from the graduates remaining in the list. If the list did not permit to do so due to inadequate number of children the interviewers took another school closest to the one just finished, and repeated the process to complete the remaining interviews. Thus, around 210 graduates from each of the six groups, totalling 1,259 were covered from the graduates of 1999.

An attempt was also made to trace all the graduates of 1995 and 1997 interviewed in the study done by Nath et al., (1996 and 1998) for this study. However, among 1,259 graduates under each study, only 812 of 1995 graduates and 991 of 1997 graduates could be traced; these are respectively 64.5% and 78.7% of the original samples. It may be mentioned here that 75.1% of the graduates of 1995 could be traced in 1997. Again, of the sample of 1995 graduates only 54.3% were common in all the three surveys.

Detailed information about the sample size of this study is presented in Table 2.

Field operation

The nucleus of data collection was a team of two male persons. While one person conducted the actual interview, the other kept the crowd and the onlookers (children and adults) away. This ensured smoother interviews. All interviews held at the premises of the houses of the selected graduates. There were 22 such teams of interviewers in the survey. Ten supervisors ensured data quality. The data collection and the quality control activities were done between November 6 and December 10, 1999.

Training

A three-day training workshop of the interviewers and the supervisors was held in Dhaka. It included classroom discussion, role-play exercises and field operations. A detailed instruction manual was also used. The core researcher of this study and a senior staff from RED conducted the training sessions.

Data quality assessment

There were three different systems of ensuring/checking the quality of data collected. For example, of the two interviewers making up a team, one was made head whose responsibility was to ensure the quality of data collected by the other member. The core researcher and the supervisors carried out random visits to the spots to ensure

that the teams were going to the right places and conducting the interviews as per instructions.

Table 3 Percentage of respondents for whom the results of original and post-enumeration interviews matched, by selected indicators, 1999

Indicators	Graduates of 1995	Graduates of 1997	Graduates of 1999
Place of defecation	98.2	98.1	98.1
Prevention of night blindness	100.0	91.6	97.2
Gender equity in schooling	81.8	88.9	93.5
Reading the word 'mother'	98.2	100.0	98.1
Reading the word 'pond'	98.2	98.1	99.1
Reading the word 'freedom'	99.1	96.3	97.3
Question from comprehension passage	99.1	97.2	95.3
Writing own name	100.0	98.2	99.1
Writing the word 'Bangladesh'	99.1	96.3	98.2
Message communication through letter	94.5	96.3	94.5
Counting '40-50'	94.5	92.6	93.5
Reading '49'	99.0	98.2	95.3
A mental arithmetic	100.0	97.2	98.1
n	110	108	108

A section of the spots covered by each team was randomly selected for post-enumeration check. In each, out of 14 graduates originally surveyed by the team, four were re-interviewed to check the quality and reliability of the data. Of the 270 spots, 82 were re-interviewed which included 326 interviewed graduates (110 of 1995, 108 of 1997 and 108 of 1999). This size is about 8.6% of the original sample. Instead of repeating the whole instrument, information only on selected items were collected. These were then matched with the original interviews to find any deviations. This matching operation showed that the data quality was very good. Most of the items matched in more than 90% of the cases. Table 3 presents the percentages of cases which matched between the two parallel interviews in respect to selected items.

Results

Socio-economic characteristics of the respondents 1999

The socio-economic characteristics of the children who graduated in 1999 are presented in Table 4. On average, the mean age of the respondents was 12.1 years. Like previous studies the mean age was highest among the graduates of BEOC followed by NFPE of BRAC and ESP areas. It was found that some children were enrolled in other schools before enrolling in BRAC schools (13.9% of the total sample). This rate was highest among the boys of BEOC (30.9%) and lowest among the girls of both types of NFPE (8.6%). After graduating from BRAC schools, 93.7% of the children enrolled in formal schools for further education. However, 84.4% were found in formal schools during the survey. Percentage of graduates currently enrolled in formal schools was highest among the graduates of NFPE-ESP and lowest among the graduates of BEOC. Over 70% of the mothers and 46.3% of the fathers of the respondents never attended any educational institute. Proportionately more illiterate parents were found among the graduates of BEOC.

Table 4 Socio-economic characteristics of the sample graduates of 1999

Socio-economic characteristics	NFPE		BEOC		NFPE-ESP		All (weighted)
	Boys	Girls	Boys	Girls	Boys	Girls	
Mean age (in years)	12.0	11.8	13.1	13.2	11.7	11.7	12.1
Enrolment rate after graduation	92.4	95.2	84.1	93.4	95.7	95.7	93.7
Current enrolment rate	84.8	88.6	63.8	77.9	89.0	88.1	84.4
Enrolled in other schools before enrolled in BRAC schools (%)	15.7	8.6	30.9	22.1	14.4	8.6	13.9
Mothers never attended school (%)	71.0	69.0	69.6	75.1	65.6	67.1	70.2
Fathers never attended school (%)	58.1	53.3	55.6	50.7	46.4	48.6	46.5
Yearly food security status as deficit (%)	57.1	55.3	54.5	50.2	47.3	50.0	54.2
HHs with <50 decimals of land (%)	58.1	61.0	63.3	64.8	64.6	64.8	61.5
HHs survive on selling manual labour (%)	57.1	60.0	51.7	56.8	53.1	58.6	58.0
BRAC membership eligible* HHs (%)	41.0	45.2	42.5	46.5	38.8	44.3	44.1
HHs with NGO membership (%)	55.7	55.7	48.3	46.5	52.6	45.2	52.9
Non-Muslim (%)	6.7	7.6	7.2	7.0	15.8	16.2	8.2

* Eligible = Households with less than 50 decimals of land and at least one person sell manual labour for more than 100 days a year; Non-eligible = others. HH = Household

On average, yearly food security status of more than half of the households from which the graduates came from was reported as deficit. Less than 60% of the parents/guardians reported that at least one person within their households sell manual labour for more than 100 days a year. It was observed that about 61.5% of the households had less than 50 decimals of cultivable land. Person from household with less than 50 decimals of land and at least one selling labour for more than 100 days a year is considered eligible for BRAC's development programmes. Only 44.1% of the graduates were found to come from such eligible households. It was observed that at least one person of about 53% of the households were involved with NGO activities. Around 8% of the respondents came from non-Muslim households.

The socio-economic characteristics of the interviewed children who graduated in 1995 and 1997 are available elsewhere (Nath et al., 1996 and 1998).

Table 5 Percentage of graduates satisfying basic competency criteria by type of school and sex, 1999

School type	Sex		Both (weighted)	Level of significance
	Boys	Girls		
NFPE	74.8	64.8	67.8	$p<0.05$
BEOC	70.0	67.1	68.0	ns
NFPE-ESP	77.0	76.7	76.8	ns
All (weighted)	73.8	66.4	68.4	$p<0.02$
Level of significance	ns	ns	ns	

ns = not significant at $p = 0.05$

Basic competencies of the graduates of 1999

According to the definition of basic competency used in all previous studies of the similar kind, 68.4% of the graduates of 1999 satisfied all the four criteria of basic competency (Table 5). Over three-quarters of the graduates of NFPE-ESP satisfied these criteria. Otherwise, the performance of the graduates of the schools directly operated by BRAC (both NFPE and BEOC) was about nine percentage points lower

than the performance of the graduates of NFPE-ESP. However, no statistically significant difference was observed in the performances among these three groups of children. On average, 73.8% of the boys and 66.4% of the girls satisfied the criteria of basic competencies, thus a statistically significant gender variation was observed in favour of boys ($p<0.02$). When the data were arranged by school type, gender variation was observed only among the graduates of NFPE ($p<0.05$). Among the six groups of respondents, boys of NFPE-ESP did best (77%) and the girls of NFPE did worst (64.8%).

Table 6 Percentage of graduates satisfying partial and none of the basic competency criteria by type of school and sex, 1999

School Type	Partial			None		
	Boys	Girls	Both	Boys	Girls	Both
NFPE	24.8	32.4	30.4	0.5	2.9	2.3
BEOC	30.0	32.9	32.0	0.0	0.0	0.0
NFPE-ESP	23.0	21.9	22.0	0.0	1.4	1.0
All (weighted)	25.9	31.5	30.0	0.3	2.1	1.6

Partial basic education' was defined as graduates satisfying at least one of the four criteria but not all. Table 6 shows that 30% of the graduates possess the basic competency criteria partially and 1.6% of the respondents could pass none of the criteria. All the graduates of BEOC could pass at least one of the four criteria.

Performance on each of the four assessment criteria for different groups of graduates is presented in Table 7. On average, around 85% of the graduates satisfied the criteria of life skills, reading and writing. However, this rate was 91.7% in case of numeracy. Statistically, graduates of all the three types of schools showed equal performance in all the four skills criteria. Skill-wise, no significant gender variation was found in the performance of life skills and writing. Gender differences were found statistically significant in the reading skills ($p<0.05$) and in numeracy skills ($p<0.001$). In both the areas boys outperformed their peer girls.

Table 7 Percentage of graduates satisfying different basic competency criteria by type of school and sex, 1999

School Type	Sex		Both (weighted)	Level of significance
	Boys	Girls		
Life skills				
NFPE	82.9	83.3	83.2	ns
BEOC	86.0	87.3	86.9	ns
NFPE-ESP	87.5	90.0	89.3	ns
All (weighted)	84.2	84.8	84.7	ns
Level of significance	ns	ns	ns	
Reading skills				
NFPE	88.1	82.4	83.8	ns
BEOC	88.9	87.8	88.1	ns
NFPE-ESP	93.3	88.6	90.0	ns
All (weighted)	88.9	84.2	85.4	p<0.05
Level of significance	ns	ns	ns	
Writing skills				
NFPE	89.5	83.3	84.9	ns
BEOC	84.5	86.4	85.8	ns
NFPE-ESP	87.1	89.0	88.5	ns
All (weighted)	88.0	84.6	85.5	ns
Level of significance	ns	ns	ns	
Numeracy skills				
NFPE	99.0	87.6	90.5	p<0.001
BEOC	97.6	91.5	93.4	p<0.01
NFPE-ESP	99.0	93.8	95.4	p<0.01
All (weighted)	98.7	89.1	91.7	p<0.001
Level of significance	ns	ns	ns	

ns = not significant at p = 0.05

Literacy criteria was defined considering only the 3 R's i.e., reading, writing and numeracy. In other wards, literacy is nothing but 'basic education' minus the 'life skills'. Nearly three quarters of the BRAC school graduates of 1999 satisfied the criteria of literacy (Table 8). Literacy rate was 81.3% among the boys and 72% among the girls (p<0.001). Statistically, no difference was observed in the literacy

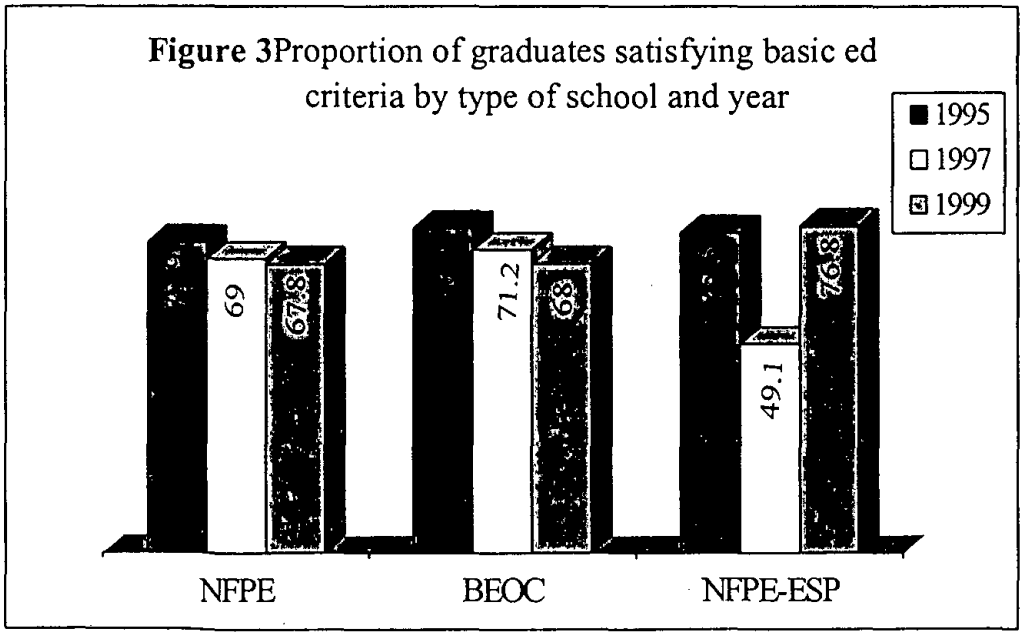
rates of the graduates of the three types of schools. However, separately the rates were 81.6% for NFPE-ESP, 75.3% for BEOC and 73.1% for NFPE. Gender difference in literacy was observed only among the graduates of BRAC operated NFPE schools ($p<0.01$).

Table 8 Percentage of graduates satisfying literacy criteria (the 3 R's) by type of school and sex, 1999

School Type	Sex		Both (weighted)	Level of significance
	Boys	Girls		
NFPE	82.4	70.0	73.1	$p<0.01$
BEOC	77.8	74.2	75.3	ns
NFPE-ESP	83.3	81.0	81.6	ns
All (weighted)	81.3	72.0	74.5	$p<0.001$
Level of significance	ns	ns	ns	

ns = not significant at p = 0.05

Figure 1 presents the percentage of the graduates of 1999 satisfying different skills criteria of basic competency.



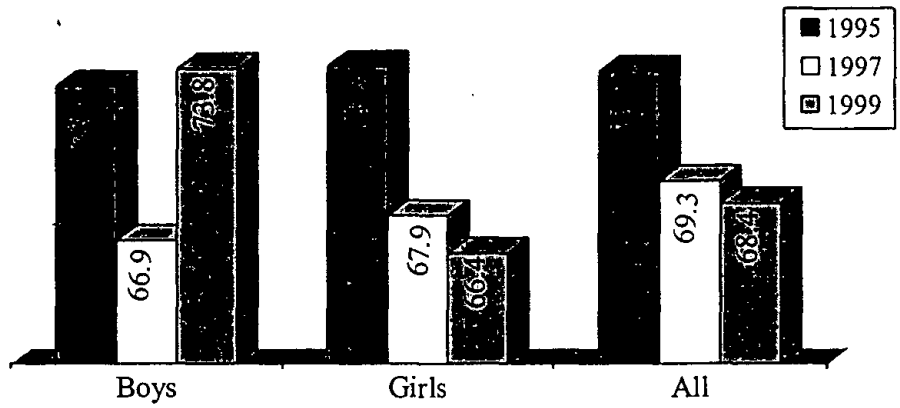
Trends in basic competencies

This section deals with the trends and changes in the level of basic competencies of the graduates. It has three parts. The first part presents the overall trend in basic competency level achieved by the graduates of BRAC's non-formal education programme. The second part presents the changes in the level of basic competencies of the graduates of 1995 over a period of four years and the third part presents such change of the graduates of 1997 over a period of two years.

Overall trends: 1995 to 1999

Three separate representative samples from the graduates of three different cohorts (viz., graduates of 1995, 1997 and 1999) were analysed in this part. On average, statistically significant deterioration was observed in the level of basic competencies among the graduates of different cohorts ($p<0.01$) (Figure 2 and Table 9). Proportion

Figure 2 Proportion of graduates satisfying basic education criteria by sex and year



of graduates satisfied the criteria of basic competencies was 73.7% in 1995, 69.3% in 1997 and 68.4% in 1999. When the data were separately arranged by sex of the graduates statistically significant deterioration was observed only among the girls ($p<0.01$). However, for boys, basic competency level decreased from 73.1% in 1995 to 66.9% in 1997, and again increased at 73.8% in 1999. On the other hand, the deterioration that observed in the level of literacy had no statistical significance.

However, for boys only, the pattern was similar to that of basic competencies. Skill-wise analysis shows that there was no significant variation in writing and life skills knowledge of the graduates of three different cohorts. However, in reading and numeracy the performance significantly came down over the period of four years ($p<0.01$). Separate arrangement of data by sex of the graduates shows that reading skills of both boys and girls ($p<0.05$) and numeracy skills of girls ($p<0.01$) decreased over the period. Otherwise, writing skills of the boys decreased from 83.6% in 1995 to 80.2% in 1997, and again increased at 88% in 1999.

Table 9 Proportion of graduates satisfying different skill criteria by year of interview

Year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1995	85.9	90.8	83.6	98.0	80.1	73.1
1997	83.6	86.3	80.2	97.3	74.8	66.9
1999	84.2	88.9	88.0	98.7	81.3	73.8
Significance	ns	p<0.05	p<0.001	ns	p<0.01	p<0.01
Girls						
1995	88.1	89.1	84.9	94.5	77.8	73.9
1997	86.5	84.9	85.9	91.4	73.5	67.9
1999	84.8	84.2	84.6	89.1	72.0	66.4
Significance	ns	p<0.05	ns	p<0.01	ns	p<0.01
All						
1995	87.5	89.6	84.6	95.5	78.5	73.7
1997	87.1	86.5	85.8	93.5	75.4	69.3
1999	84.7	85.4	85.5	91.7	74.5	68.4
Significance	ns	p<0.01	ns	p<0.01	ns	p<0.01

ns = not significant at p = 0.05

The level of basic competency of the NFPE-ESP graduates was significantly lower in 1997 (49.1%), which is about two-thirds of the levels of other two periods (Figure 3 and Table 10). The performances of other two groups of children, however, decreased over the period in percentage points but were statistically insignificant. No gender variation was found in the level of basic competency or literacy of any of the study groups in 1995 and 1997. However, it appeared against girls among the 1999 graduates of NFPE schools operated by BRAC, which again reflected in the overall

performance of the cohort. Similar trend and variation were observed in the case of literacy rates (Table 11). Annexes 1 to 4 present more details of this analysis separately for each school type and for each skill criteria.

Figure 3 Proportion of graduates satisfying basic education criteria by type of school and year

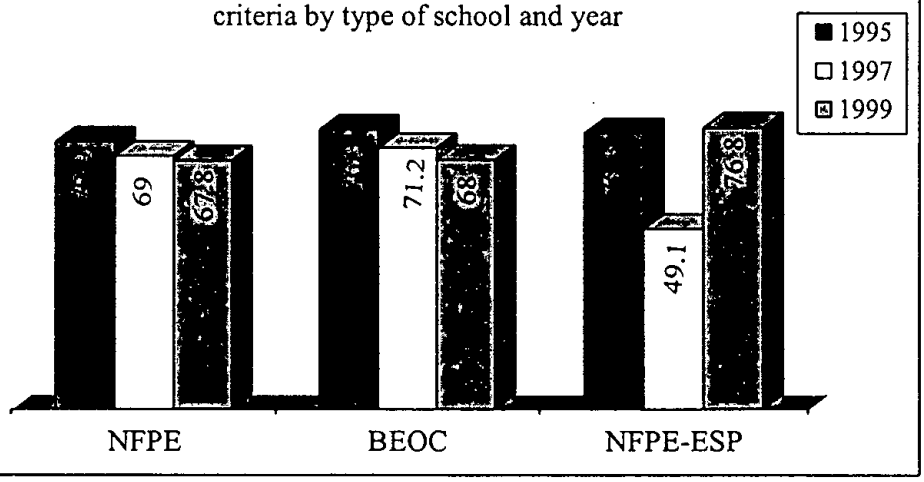


Table 10 Percentage of graduates satisfying all basic competency criteria by type of school, sex and year.

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
1995	72.9	72.9	72.9	73.4	77.5	76.3	74.9	75.4	75.3
1997	66.8	70.0	69.0	76.2	69.0	71.2	49.8	48.8	49.1
1999	74.8	64.8	67.8*	70.0	67.1	68.0	77.0	76.7	76.8
Significance	ns	ns	ns	ns	p<0.05	ns	p<0.001	p<0.001	p<0.001

* p<0.05; ns = not significant at p = p<0.05

Table 11 Percentage of graduates satisfying literacy criteria by type of school, sex and year.

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
1995	81.0	76.2	77.6	76.8	82.6	80.9	80.1	81.6	80.2
1997	74.9	74.8	74.8	83.3	77.1	79.0	58.0	56.9	57.2
1999	82.4	70.0	73.7*	77.8	74.2	75.2	83.3	80.0	80.6
Significance	ns	ns	ns	ns	ns	ns	p<0.001	p<0.001	p<0.001

* p<0.01; ns = not significant at p = p<0.05

Tracing the graduates of 1995

This part analyses data on the basic educational performances of the graduates of 1995 who were tested in 1995, 1997 and 1999. It is already mentioned that all the 1,259 graduates were attempted to assess during above three surveys. However, only 684 could be traced in all the surveys.

Table 12 Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying different skills criteria by year of interview

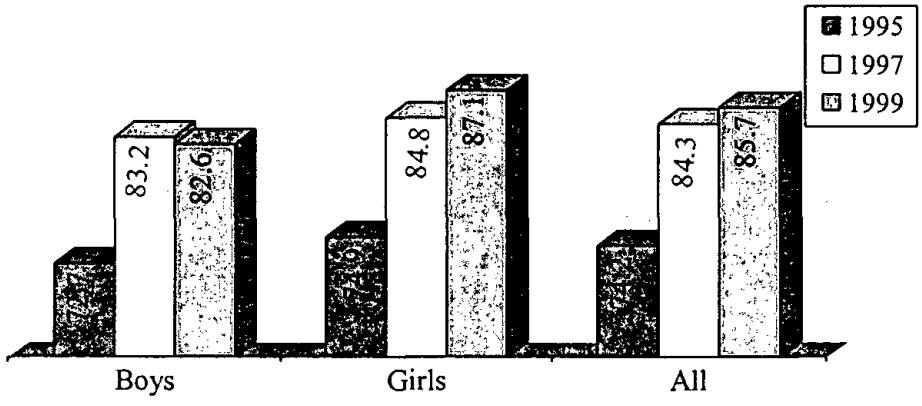
Year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1995	86.3	91.7	84.0	99.1	80.1	72.7
1997	97.4	93.4	89.7	99.0	84.8	83.2
1999	96.5	96.0	85.9	100.0	84.9	82.6
Significance	p<0.001	ns	ns	ns	ns	p<0.01
Girls						
1995	89.3	90.5	84.5	93.8	77.8	74.9
1997	95.4	93.6	90.4	98.4	86.4	84.8
1999	98.5	98.9	88.0	98.9	87.9	87.1
Significance	p<0.001	p<0.001	p<0.05	p<0.001	p<0.001	p<0.001
All						
1995	88.4	90.9	84.4	95.4	78.5	74.2
1997	96.0	93.5	90.2	98.6	85.9	84.3
1999	97.9	98.0	87.3	99.2	87.0	85.7
Significance	p<0.001	p<0.001	p<0.01	p<0.001	p<0.001	p<0.001

ns = not significant at p = 0.05

The level of basic education of these graduates were 74.2% in 1995, which increased to 84.3% in 1997 and again increased to 85.7% in 1999. The overall difference was found statistically significant at p<0.001 (Table 12 and Figure 4). Similar fashion of increase was observed in the literacy rate of the graduates. The increase in the level of basic education of the girls was smooth over the period; 74.9% in 1995 to 84.8% in 1997 and 87.1% in 1999. Otherwise for boys, 72.7% of the graduates had basic education in 1995, which rose up to 83.2% in 1997 and went down to 82.6% in 1999. When the data were arranged separately for each type of competency it was observed that over the period the performance significantly increased in life skills, reading and

numeracy, but not in writing. In writing skills, the performance increased from 84.4% in 1995 to 90.2% in 1997, however, decreased to 87.3% in 1999.

Figure 4 Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying basic education criteria by sex and year



Among the graduates of 1995, no gender variation was observed in the basic competency or literacy rates in any of the surveys. Equal performance of boys and girls in all the three surveys was also seen in life skills and writing. In reading skills, no gender variation was seen in 1995 and 1997, however the performance of the girls became higher than that of boys in 1999 ($p<0.02$). On the other hand, in numeracy, the girls had significantly lower performance than the performance of boys in 1995 ($p<0.01$), which disappeared in 1997 and continued up to 1999. Similar analyses separately for the graduates of each type of schools are available in Annexes 5 to 10.

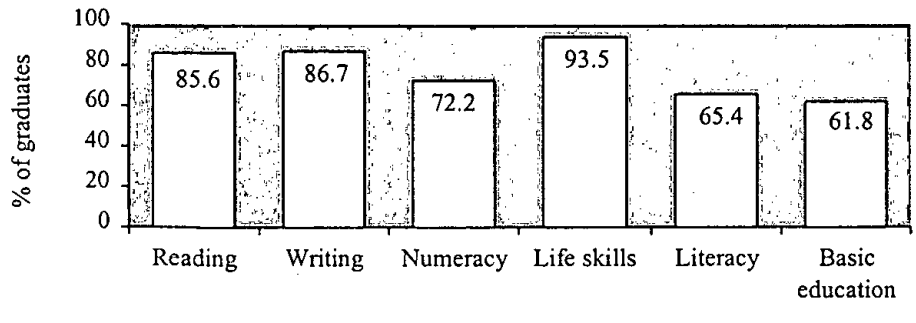
Table 13 shows that among the graduates of 1995 who were traced in the following two surveys, 61.8% had basic competencies in the year of graduation that has continued up to 1999, 13.5% achieved basic competencies in 1997 and continued up to 1999, and 4.3% achieved it only in 1999. Slightly over 4% of the graduates had never achieved basic competencies, one percent achieved such performance in 1995 but lost it in 1997 and could not retain it till 1999, and 5.3% had basic competencies during the first two surveys, however they lost it in 1999. Around 6% of the

graduates had basic competencies in 1995 and 1999, and 3.6% only in 1997. Of the four areas of assessment retention rate was highest in numeracy (93.5%) and lowest in writing (72.2%) (Figure 5). The tendency to loose performance was also higher in writing compared to other areas. The retention rate was 63% among NFPE graduates, 62.6% among NFPE-ESP graduates and 57.5% among BEOC graduates (Annex 11). Sex-wise analysis shows that the retention rate was 63.2% among the girls and 58.3% among the boys. Of the six groups of graduates the retention rate was highest among the boys of NFPE-ESP (71.2%) and lowest among the girls of BEOC (56.9%). Annex 11 provides more details of the above analysis.

Table 13 Percentage of graduates of 1995 who were followed up in both 1997 and 1999 by the time of satisfying and loosing different skills criteria.

	Life Skills	Reading	Writing	Numeracy	Literacy	Basic education
Achieved in 95+	85.6	86.7	72.2	93.5	65.4	61.8
Achieved in 97+	9.5	5.6	8.1	4.3	11.2	13.5
Achieved in 99	0.7	2.0	2.6	0.1	3.9	4.3
Never achieved	1.0	0.7	1.6	0.0	3.0	4.3
Lost in 97+	0.1	0.1	1.3	0.1	0.7	1.0
Lost in 99	0.6	0.4	6.5	0.7	5.9	5.3
Achieved only in 97	0.4	0.7	3.3	0.0	3.3	3.6
Achieved in 95 and 99	2.0	3.5	4.3	1.2	6.5	6.1

Figure 5 Percentage of graduates of 1995 achieved different skills o basic education in 1995 and retained the skills up to 1999



Tracing the graduates of 1997

This part analyses data on the basic educational performance of the graduates of 1997 who were tested in 1997 and 1999. On average, the level of basic competencies of the graduates of 1997 significantly increased by two years, 71.4% in 1997 to 79.9% in 1999 ($p<0.001$) (Table 14). The literacy rate of these graduates increased from 76.7% in 1997 to 83.5% in 1999. Skill-wise analysis shows that the performance increased in life skills and reading, but not in writing and numeracy. Similar results were found when data were analysed for boys and girls separately.

Table14 Percentage of graduates of 1997 who were followed up in 1999 satisfying different skills criteria by sex and year of interview

Year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1997	84.3	86.6	81.4	97.6	74.6	68.7
1999	90.9	92.8	88.0	98.6	84.9	80.3
Significance	p<0.01	p<0.01	p<0.01	ns	p<0.001	p<0.001
Girls						
1997	88.7	87.3	90.4	92.3	77.5	72.4
1999	93.8	94.6	89.4	94.3	82.9	79.7
Significance	p<0.01	p<0.001	ns	ns	p<0.05	p<0.01
All						
1997	87.4	87.1	87.7	94.0	76.7	71.4
1999	92.9	94.0	89.0	95.6	83.5	79.9
Significance	p<0.001	p<0.001	ns	ns	p<0.001	P<0.001

Notes: ns = not significant at $p<0.05$

Table 15 presents similar data arranged by type of school and sex of the graduates. Significant change in the level of basic competencies was observed among the graduates of both types of NFPE directly operated by BRAC and under ESP (respectively $p<0.01$ and $p<0.001$), not among the graduates to BEOC. The performance of the graduates of NFPE under ESP was very poor in 1997, less than half of them could satisfy the criteria of basic competency. This standard was about two-thirds of the performance of the other two groups. These children successfully increased their performance over the period of next two years and reached at the level

of rest two groups of children. Both boys and girls of NFPE-ESP showed this success. Otherwise, only the boys of NFPE could increase their performance. Neither the boys nor the girls of BEOC could do so. Similar results would be seen in case of literacy rates (Table 16).

Table 15 Percentage of graduates of 1997 who were followed up in 1999 satisfying basic competency criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
1997	66.7	73.2	71.2	78.6	70.1	72.8	46.6	51.2	49.8
1999	79.3	81.0	80.4	85.1	74.0	77.6	72.0	80.7	78.2
Significance	p<0.01	ns	p<0.01	ns	ns	ns	p<0.001	p<0.001	p<0.001

Notes: ns = not significant at p = 0.05

Table 16 Percentage of graduates of 1997 who were followed up in 1999 satisfying literacy criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
1997	73.0	78.6	76.9	82.7	73.4	76.4	54.7	62.2	60.3
1999	83.9	83.9	83.9	89.9	77.9	81.7	76.4	84.9	82.4
Significance	p<0.02	ns	p<0.02	ns	ns	ns	p<0.001	p<0.001	p<0.001

Notes: ns = not significant at p = 0.05

Discussion

This is the third report of a continuous evaluation of the basic educational performance of the graduates of BRAC's non-formal schools. After the World Conference on Education for All 1990 BRAC developed an assessment instrument to measure the level of basic education of the children at primary level. This instrument is a simple one and already proved its effectiveness at national as well as sub-national levels. It can be mentioned that basic ideas towards primary and mass education formulated in the World Declaration were considered in developing and designing the

measuring instrument. BRAC's non-formal education programme currently provides primary education with five years curriculum. However, this study considered the graduates completing three years curriculum. This helped comparing the findings with other similar studies. Again, none of the BRAC schools completed five-year cycle of primary education in 1999.

The findings of this study show that 68.4% of the graduates of 1999 satisfied all the four criteria of basic education, which is 0.9 percentage points less than the performance of the graduates of 1997 and 5.4 percentage points less than the performance of the graduates of 1995. Although there was no significant difference between the performance of the graduates of 1995 and 1997, however, the difference appeared when statistical test was performed between the performances of 1995 and 1999. Above results indicate overall decrease in the level of basic education over the period. Skill-wise analysis shows significant decrease in reading and numeracy. BRAC's education programme needs to be careful in teaching learning in these two areas. Earlier studies on basic education indicate that it was not possible for the BRAC's non-formal education programme to ensure basic education to 80% of the learners. This study further confirmed that the quality of basic education provided through BRAC's non-formal system decreased gradually. BRAC has expanded its education programme more during the last five years and recently extended the programme from three years to five years, indicating more operational involvement. The study findings indicate that the quality of education was not emphasised much with the expansion of the programme.

BRAC schools put much emphasis on girls' enrolment; about 70% of the students are girls. Thus, the quality of education provided to the girls' influences much on the determination of overall quality of the system. Again, among the three types of schools BRAC operated NFPE is much bigger in size compared to other two, meaning that the performance of the girls of this type of schools play vital role in overall performance of the programme. Previous two surveys (Nath et al., 1996, 1998) did not find any gender variation in the basic educational achievement of the graduates. However, it appeared among the graduates of 1999. Among the three groups of

children, NFPE graduates showed lowest performance compared to other two groups. Again, the performance of the girls of NFPE is 10 percentage points lower than that of the boys of the same schools. Thus, more emphasis is required to academic improvement of the girls of NFPE if we want to improve the quality of the overall programme.

Previous studies showed that gender difference occurred only in numeracy; the girls were doing worse compared to the boys. This study added a new area of gender variation against girls. It is reading. This indicates that gender discrimination against girls in academic performance is increasing over time. BRAC, as a pioneer in rural development and women's empowerment, should consider the issue of gender discrimination in academic performance of the students of its education programme. To achieve equal performance of the boys and the girls of BRAC schools special programme might be considered. There is a need to explore why such discrimination is occurring only in mathematics for a long period and in reading recently. Is there anything wrong in the curriculum or in teachers' attitude that caused this discrimination? There is a scope to examine the programme operation by the field level organisers to know whether their activities have any influence on this. Further research is needed to explore this.

The second study of this series observed a worse performance of the graduates of NFPE under ESP compared to others (Nath et al., 1998). However, NFPE-ESP could overcome that worst situation these days. Three-fourths of the graduates of this type of school achieved basic education in 1995, which decreased to 49% in 1997 and now it again increased at 76.8% in 1999. This is a good sign for this sub-system.

After leaving BRAC schools, the academic performance of the graduates depends on the quality of formal schools, where BRAC school graduates do enrol for further education. However, this is true only for those who continue education in formal schools. Over 90% of the graduates enrol in formal schools after leaving BRAC schools, however, some of them started dropout within a short period. Even then, a good proportion of the BRAC school graduates continue education for the next five or

more years. A follow up mechanism of the graduates of 1995 observed that the enrolment rate was 62.5% at the beginning of 1997 and 38% percent during October 1999. If we look at the level of basic education of these graduates it can be seen that it is increasing over time. The level of basic education of the same graduates increased from 74.2% in 1995 to 84.3% in 1997 and to 85.7% in 1999. This was because many graduates could retain their knowledge for longer period and some could earn it through further education in formal schools. It was also observed that the performance of the graduates of 1995 gradually increased in three areas viz., reading, numeracy and life skills. It writing, the performance decreased from 1997 to 1999; the formal schools need to put emphasis on writing. One methodological issue could be discussed here. If we look at the performances of the graduates of 1995 separately in different skills it can be seen that 98% satisfied the criteria of reading, numeracy and life skills in 1999. In fact the scope of the instrument become limited to measure further development of these graduates in three areas. It is important to think about the effectiveness of this instrument for further use in assessing the level of basic education of these children after two years in 2001.

Finally, it can be said that BRAC is doing its best for the education of the children of rural poor families where most of the parents have no or little education. Again, one previous study has shown that BRAC school graduates are learning better than the students of formal schools in rural areas (Nath et al., 1999). The management of BRAC Education Programme should not be happy with this. Because, firstly, it serves only 6.4% of the total children enrolled in primary education (Chowdhury et al., 1999). Secondly, the quality of the programme in the sense of end product is gradually decreasing. Thirdly and most importantly, gender gap in performance is increasing against girls. A sincere look into these issues may be urged to the programme management for betterment of children of the rural poor families as well as for primary education in Bangladesh.

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Annex Tables

Annex 1: Percentage of graduates satisfying life skills criteria by type of school, sex and year

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	84.8	87.1	86.4	90.3	92.0	91.5	83.8	86.4	85.6
1997	84.4	88.6	87.3	88.6	86.2	86.9	68.1	70.1	69.5
1999	82.9	83.3	83.2	86.0	87.3	86.9	87.6	90.0	89.3
Significance	ns	ns	ns	ns	ns	ns	p<0.001	p<0.001	p<0.001

ns = not significant at p = p<0.05

Annex 2: Percentage of graduates satisfying reading skills criteria by type of school, sex and year

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	91.4	87.6	88.7	89.4	94.4	92.9	85.9	89.9	88.7
1997	86.3	86.2	86.2	91.9	87.1	88.5	75.8	70.6	72.2
1999	88.1	82.4	84.1	88.9	87.8	88.1	93.3	88.6	90.0
Significance	ns	ns	ns	ns	p<0.05	ns	p<0.001	p<0.001	p<0.001

ns = not significant at p = p<0.05

Annex 3: Percentage of graduates satisfying writing skills criteria by type of school, sex and year

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	83.8	84.3	84.2	82.6	86.4	85.3	85.3	89.0	87.9
1997	80.6	89.5	86.8*	84.3	81.4	82.3	69.6	65.9	67.0
1999	89.5	83.3	85.2	84.3	86.4	85.8	87.1	89.0	88.5
Significance	p<0.05	ns	ns	ns	ns	ns	p<0.001	p<0.001	p<0.001

* p<0.01; ns = not significant at p = p<0.05

Annex 4: Percentage of graduates satisfying numeracy skills criteria by type of school, sex and year

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	98.1	93.8	95.1*	98.1	96.7	97.1	96.3	95.2	95.5
1997	97.6	91.4	93.3**	98.1	93.3	94.7*	92.8	87.2	88.9
1999	99.0	87.6	91.0***	97.6	91.5	93.3**	99.0	93.8	95.4**
Significance	ns	ns	ns	ns	ns	ns	p<0.01	p<0.01	p<0.01

* p<0.05; ** p<0.01; *** p<0.001; ns = not significant at p = p<0.05

Annex 5: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying basic competency criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	72.6	74.4	73.8	72.2	77.5	75.8	79.8	72.1	74.2
1997	85.5	87.2	86.7	74.1	76.5	75.7	84.6	79.1	80.6
1999	81.5	88.0	86.0	86.1	84.3	84.9	89.4	82.9	84.7
Significance	p<0.05	p<0.01	p<0.001	p<0.05	ns	p<0.05	ns	ns	p<0.05

ns = not significant at p = p<0.05

Annex 6: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying literacy criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	80.6	76.1	77.5	77.8	84.3	82.3	82.7	79.8	80.6
1997	86.3	88.9	88.1	78.7	76.5	77.2	87.5	84.5	85.3
1999	83.9	88.9	87.3	88.0	84.3	85.5	91.3	86.0	87.3
Significance	ns	p<0.01	p<0.01	ns	ns	ns	ns	ns	ns

ns = not significant at p = p<0.05

Annex 7: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying life skills criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	85.5	88.9	87.8	88.9	92.2	91.1	89.4	83.7	85.3
1997	98.4	94.9	96.0	93.5	98.0	96.6	96.2	91.5	92.7
1999	96.8	98.3	97.8	95.4	100.0	98.5	97.1	95.3	95.8
Significance	p<0.001	p<0.01	p<0.001	ns	p<0.01	p<0.001	p<0.05	p<0.01	p<0.001

ns = not significant at p = p<0.05

Annex 8: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying reading skills criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	91.9	88.9	89.8	90.7	97.1	95.1	90.4	89.9	90.0
1997	93.5	93.2	93.3	92.6	95.1	94.3	95.2	94.6	94.7
1999	96.0	99.1	98.2	96.3	98.0	97.3	95.2	96.9	96.4
Significance	ns	p<0.01	p<0.001	ns	ns	ns	ns	ns	p<0.02

ns = not significant at p = p<0.05

Annex 9: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying writing skills criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	84.7	83.8	84.0	80.6	87.3	85.1	87.5	86.8	87.0
1997	91.9	93.2	92.8	80.6	79.4	79.8	91.3	89.1	89.7
1999	84.7	88.9	87.6	89.8	84.3	86.0	92.3	87.6	88.9
Significance	ns	ns	p<0.02	ns	ns	ns	ns	ns	ns

ns = not significant at p = p<0.05

Annex 10: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying numeracy skills criteria by school type, sex and year of interview

	NFPE			BEOC			NFPE-ESP		
Year	Boys	Girls	Both	Boys	Girls	Both	Both	Girls	Both
1995	99.2	93.2	95.0	99.1	96.1	97.0	97.1	94.6	95.3
1997	99.2	99.1	99.2	98.1	96.1	96.7	99.0	93.8	95.2
1999	100.0	99.1	99.4	100.0	98.0	98.7	99.0	96.9	97.5
Significance	ns	$p<0.01$	$p<0.01$	ns	ns	ns	ns	ns	ns

ns = not significant at p = $p<0.05$

Annex 11: Percentage of graduates of 1995 who were followed up in both 1997 and 1999 satisfying basic competency criteria by school type and sex

	NFPE		BEOC		NFPE-ESP	
	Boys	Girls	Boys	Girls	Boys	Girls
Achieved in 95+	58.2	65.0	58.3	56.9	71.2	59.7
Achieved in 97+	16.1	13.7	11.1	10.8	7.7	10.9
Achieved in 99	0.8	5.1	5.6	5.9	6.7	6.2
Never achieved	4.8	3.4	8.3	4.9	2.9	7.0
Lost in 97+	2.4	0.0	0.9	2.0	1.9	1.6
Lost in 99	5.6	5.1	1.9	7.8	2.9	4.7
Achieved only in 97	5.6	3.4	2.8	1.0	2.9	3.9
Achieved in 95 and 99	6.5	4.3	11.1	10.8	3.8	6.2

	School type			Sex	
	NFPE	BEOC	NFPE-ESP	All boys	All girls
Achieved in 95+	63.0	57.5	62.6	58.3	63.2
Achieved in 97+	14.3	11.1	9.9	14.8	13.0
Achieved in 99	3.8	5.8	6.2	1.9	5.2
Never achieved	3.8	5.8	5.8	5.6	3.8
Lost in 97+	0.8	1.4	1.6	2.3	0.4
Lost in 99	5.5	5.8	4.1	4.6	5.6
Achieved only in 97	4.2	1.4	3.7	5.1	2.9
Achieved in 95 and 99	5.0	11.1	5.8	7.4	5.6