Basic Competencies of the Graduates of BRAC Non-formal Primary Schools Declining

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Executive Summary

Based on the Declaration of the World Conference on Education for All 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 primary schools through this instrument. The instrument has four sections – reading, writing, numeracy and life skills/knowledge. A respondent satisfying the set criteria in all the four areas was considered as having basic education. This report presents the basic educational status of the graduates of four cohorts of 1995, 1997, 1999 and 2001. Four independent samples were drawn from these four cohorts and the graduates were tested after nine/ten months of their graduation. Besides, re-test of the previously assessed graduates were done during the following surveys. Sampling design was similar in each survey. Children from three types of BRAC schools were assessed, these are Non Formal Primary Education (NFPE) and Basic Education for Older Children (BEOC) directly run by BRAC Education Programme, and NFPE under the Education Support Programme (ESP) operated by other NGOs with support from BRAC. The sample size for the four independent surveys was about 1,260 each. Not all former graduates were found in the re-surveys, for instance only a third of the graduates of 1995 were common in all the four surveys.

Major findings

The graduates of 2001

1. On average, 62.5% of the graduates of 2001 satisfied all the four criteria of basic education. According to school type, this rate was 65.6% for NFPE, 52.3% for BEOC and 78.7% for NFPE-ESP.
2. Over 19% of the graduates satisfied three criteria, 12.7% satisfied two, 3.8% one, and 1.4% could pass none of the criteria.
3. Gender variation was observed favouring the boys (67.7% vs. 59.6%). Such variation exists in both NFPE and BEOC, but not in NFPE-ESP.
4. Over 70% of the graduates satisfied the literacy criteria i.e., reading, writing and numeracy. Literacy rate was 76.3% among the boys and 68.5% among the girls.
5. Skill-wise analysis showed that, on average, 79% of the graduates satisfied the criteria of life skills, 84.8% reading, 83.1% writing, and 91.2% numeracy.
6. Among the six groups of students the girls of BEOC showed the worst performance, only 49% of them achieved basic education and 63.8% satisfied the literacy criteria.

Overall change: 1995 to 2001

7. The overall performance of the programme is decreasing significantly. On average, the proportion of graduates satisfying the criteria of basic education was 73.7% in 1995, 69.3% in 1997, 68.7% in 1999, and 62.5% in 2001. The literacy rates were 78.5%, 75.4%, 74.9%, and 71.3% respectively in 1995, 1997, 1999, and 2001.
8. There was no gender variation in the levels of basic education and literacy among the graduates of 1995 and 1997. However, boys outperformed the girls in 1999 first, which continued till 2001. Such gender difference was found only among the graduates of NFPE in 1999, and in both NFPE and BEOC in 2001.
9. Skill-wise analysis shows that the performance declined in three areas viz., life skills/knowledge, reading and numeracy, however was constant in writing.

10. Numeracy was the area where gender difference was found among the graduates of all the four cohorts. Boys did significantly better than the girls in all the four surveys.

1995 graduates: 1995 to 2001

11. The level of basic education of the graduates of 1995, who were tested in four successive surveys, increased over time, 72% in 1995 to 83.6% in 1997, 83.6 in 1999, and 84.6% in 2001. Skill-wise analysis shows improvement in all the four areas.

1997 graduates: 1997 to 2001

12. The performance of the graduates of 1997 who were re-interviewed in the following two surveys also increased over time, 71.1% in 1997 to 79.9% in 1999, and 81% in 2001. Performance improved in three areas – life skills/knowledge, reading and numeracy.
13. The performance of the graduates of NFPE-ESP was worst in 1997, however it overcome the situation in 1999 and then continued its progress up to 2001.

1999 graduates: 1999 to 2001

14. Basic educational performance of the graduates of 1999 increased in two years, from 68.7% in 1999 to 73.9% in 2001.

Conclusions

1. The overall performance of the programme is gradually declining. Higher level of deterioration was seen in BEOC.
2. Gender gap against girls is gradually increasing. Numeracy is the area where the performance of the girls was behind the boys in all the four surveys.
3. Incorporation of life skills/knowledge is a strong point in BRAC curriculum. Performance in life skills/knowledge seriously deteriorated in recent years, especially in BEOC schools.
4. The level of basic education of the former graduates increased over the period due to higher knowledge retention rate and admission in formal schools. Major improvement occurred during the first two years of graduation from BRAC schools.

Recommendations

1. An in-depth study on the BEOC schools is necessary.
2. There is a need to prepare a guideline for teachers and programme organisers which may help shaping their attitude and behaviour to make it more gender sensitive. This can be a common issue for discussion in the training sessions and grassroots level meetings.
3. A quality monitoring system incorporating indicators on classroom activities, attainment of the students in various subject areas, and gender related matters may be introduced. Results of this system can be used for improvement of pupils' quality and inequality among them.

Introduction

The World Conference on Education for All (WCEFA), held in Jomtein, Thailand in 1990, asked the nations to equip their people with basic education. The definition of basic education was not limited only by 3Rs (reading, writing, and numeracy); the idea of life skills was also incorporated in it. As a signatory to the declaration of the conference Bangladesh was committed to impart basic education to at least 80% of her school aged children by the year 2000 AD. However, like many other developing countries Bangladesh could not achieve the goal within the time frame mentioned above. A recent study showed that if the rate of progress in the level of basic education of children remains as it is, Bangladesh would not achieve the WCEFA goal before 2093 AD (Nath and Chowdhury, 2002). Bangladesh also participated in the Dakar Conference, and again refreshed its commitments to achieve Education for All (EFA) by 2015 AD. The challenge for Bangladesh is to keep its words to do so without postponing the commitment again.

Although it was not possible for the nation to equip its people with minimum level of education many attempts have been taken during the 1990s and onwards in the expansion of primary education in the country. Government accepted a culture of pluralism in this sector, 11 types of primary schools are there in operation. Food for Education was in operation and the education ministry provides stipends to increase enrolment. Private sector is encouraged to open primary schools and the non-governmental organisations have been operating non-formal primary schools to complement the government initiatives.

BRAC, a non-governmental development organisation has been operating non-formal primary education programme since 1985. It has two types of schools. One is called Non Formal Primary Education (NFPE) and the other is Basic Education for Older Children (BEOC). The students of NFPE are relatively younger than those of BEOC. Both NFPE and BEOC had three-year course. Few years back the NFPE has been modified as a four-year course. Although most of the NFPE schools operate four-year course, some (where

teachers are not well equipped to teach the students of Grades IV and V) still run three-year course. Whatever the case is, the programme organisers of BRAC take the graduates to enrol in nearby formal schools for further education. Besides, under Education Support Programme (ESP) BRAC helps (both financial and material) local NGOs to run NFPE type of schools in their working areas.

After the Jomtein Conference, with financial assistance from UNICEF Bangladesh, the Research and Evaluation Division (RED) of BRAC developed a simple methodology called Assessment of Basic Competencies or ABC to monitor basic educational level in Bangladesh (UNICEF, 1992; Chowdhury et al, 1994). Besides the national surveys, BRAC launched a systematic and longitudinal assessment of the graduates of its education programme in 1995. This initiative is known as 'tracer study'. Under this system a representative sample of BRAC school graduates of 1995 was first assessed in the same year. After two years (in 1997) a new cohort of graduates was added with this and the graduates of 1995 were also attempted to trace and assess. Similarly, in 1999 and 2001, two new cohorts were added and the previously assessed graduates were also traced. Thus, the graduates of four different cohorts are included in this report.

This report presents primarily the findings from the latest survey. Findings from the previous surveys were also used for comparison purposes. Data of earlier surveys were used to show the progress of the ex-graduates of BRAC schools. This report covers the following.

- Basic educational attainment of BRAC school graduates of 2001;
- Level and trend of basic educational attainment of BRAC school graduates from 1995 to 2001;
- Trends in basic educational attainment of BRAC school graduates of 1995, 1997 and 1999 over the period; and
- Above estimates segregating the data by gender and school type.

Methodology

The methodology used in this study was developed in Bangladesh and was used twice to measure the level of basic education nationally (UNICEF, 1992; Chowdhury et al., 1994, 1999; Nath et al., 1993). The process development involved 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 3Rs) 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 related to life in Bangladesh and conveyed a development message.

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

There were six parts in the ‘numeracy skills’ section. These are counting numbers, 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

Respondents satisfying the following criteria were considered having ‘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

The study population consists of four cohorts of BRAC school graduates from three types of schools – NFPE, BEOC and ESP. Two points might help the readers to understand more about the study population. Firstly, only the NFPE and BEOC schools located in rural areas where BRAC development programme (BDP) exists were considered. Secondly, earlier the NFPE programme was a three years course, so the surveys of 1995, 1997, and 1999 considered only those graduates who completed the three-year curriculum. The 2001 cohort had nearly 80 percent of the schools continuing fourth grade in NFPE and rests discontinued after third grade. Many of the students of these

discontinued schools might be enrolled in formal schools in grade IV. Table 1 shows the population size of this study.

Table 1
Number of schools completed and students graduated by type of school and year

Year	Type of school			Total number of school	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
2001	6,964	3,682	1,010	11,656	372,997

Sampling

The 30 cluster sampling procedure previously used in many educational studies in Bangladesh including Assessment of Basic Competencies (ABC) at national level was considered for this study. For NFPE and BEOC schools 30 teams were randomly selected. Similarly, for ESP schools 30 NGOs were selected. Because, the BRAC operated schools are clustered in teams at the lower level and the ESP schools are clustered under the local level NGOs. From each selected team/NGO two schools completing the course were chosen, one randomly and another one adjacent to the already selected one. The graduates of these two schools were then grouped sex-wise. Seven graduates from each group were selected randomly. Altogether 420 graduates (210 boys and 210 girls) from each type of schools were selected. Each study year a new cohort of graduates was added with the system and previously surveyed graduates were attempted to trace for re-survey. However, not all could be traced due to unavailability in the previous areas. This reduced the sample size in the successive re-surveys. Table 2 presents sample size at a glance and Annex 1 provides the same in detail.

In each survey, the nucleus of data collection was a team of two test administrators. While one person took the test the rest one kept the noise down and onlookers away. All the tests were held at the premises of the respondent graduates. Adequate number of supervisors supervised the field activities. All the four surveys were carried out during

October – November of the survey years. Before the surveys, the test administrators and their supervisors were given three days of intensive training. An instruction manual describing all details of the ABC test was used in the training sessions.

Table 2
The study sample at a glance

Year of graduation	Number of graduates				
	Surveyed in the year of graduation	Re-surveyed in 1997	Re-surveyed in 1999	Re-surveyed in 2001	Common in all surveys
1995	1259	945 (75.1)	812 (64.5)	607 (48.2)	417 (33.1)
1997	1259	–	991 (78.7)	827 (65.7)	717 (56.9)
1999	1259	–	–	945 (75.1)	945 (75.1)
2001	1256	–	–	–	–

Figures in the parentheses indicate percentage of graduates traced in successive re-surveys.

Attempts were made to ensure the quality of test data. Each year a number of sampled graduates were chosen randomly for re-testing. Instead of repeating the whole test a section was administered in the re-test. The matching exercise between the data collected in the test and re-test found that most of the items matched in more than 90 percent of the cases. This indicates that the data quality was very good. Reliability of the data was also checked through Kuder-Rechardson formula number 20 (KR 20). The reliability co-efficient was found 0.88 in 1995, 0.87 in 1997, 0.90 in 1999 and 0.87 in 2001. These ensure a satisfactory level of data reliability.

The numbers of graduates in different types of schools are not equal, but their representation in the sample is equal (Tables 1 and 2). Again, the number of boys and girls are un-equal in these schools. To deal with such situation some weighting factors need to be used for pooling the data for aggregate estimate. Adequate statistical measures were taken to deal with this (Cochran, 1977).

Results

Socio-economic characteristics of the graduates

Collection of socio-economic information of the graduates is a part of the tracer study. Table 3 provides socio-economic background of the graduates of different years collected during the surveys of respective years. Average age of the graduates of all the four cohorts was similar. Parental education of the graduates improved over time, indicating lesser proportion of children with illiterate parents enrolled in BRAC schools in recent years. Self-rated food security status and labour selling status of the households also indicate that graduates of recent years came from slightly better off households compared to those of previous years.

Table 3

Socio-economic characteristics of the sample graduates by year of graduation

Socio-economic characteristics	Year of graduation			
	1995	1997	1999	2001
Mean age (in year)	12.3	12.4	12.1	12.0
Enrolment in formal school after graduation (%)	-	-	93.7	92.0
Enrolled in other schools before enrolled in BRAC schools (%)	16.3	12.4	13.9	16.5
Mothers never attended in school (%)	77.8	73.8	70.2	70.1
Fathers never attended in school (%)	59.2	56.3	46.5	51.8
Yearly food security status as deficit (%)	53.9	53.3	54.2	34.7
Households with $\leq$50 decimals of land (%)	57.5	63.8	61.5	58.8
Households survive on selling manual labour (%)	54.4	43.9	58.0	48.0
Households with $\leq$50 decimals of land or selling manual labour	71.1	69.1	75.9	70.7
Households with NGO membership (%)	54.1	49.7	52.9	46.2
Non-Muslim graduate (%)	4.9	15.5	8.2	9.0

Note: The above information were collected during the surveys of respective years

Basic competencies of the graduates of 2001

This section is based on the test results of the graduates of 2001, i.e., the first round test results of the latest cohort entered into the study. According to the operational definition of basic competency used in all previous surveys of the similar kind, 62.5 percent of the BRAC schools graduates of 2001 satisfied all the four criteria of basic competency (Table 4). The performance significantly varied by school type ($p<0.001$). For instance, the graduates of NFPE schools under education support programme (ESP) did the highest score, 78.7 percent of these graduates satisfied the minimum criteria of the test. On the

other hand, this was 65.6 percent among the graduates of NFPE directly operated by BRAC Education Programme (BEP), and only 52.3 percent for BEOC graduates. Other way, it can be said that BEP operated NFPE is 13.1 percentage points behind the NFPE under ESP, and BEOC is 26.4 percentage points behind the same. Difference between NFPE and BEOC us 13.3 percentage points. School type-wise significant difference also exists when data were analysed separately for boys and girls ($p<0.001$).

Table 4

Percentage of graduates satisfying basic education criteria by type of school and sex, 2001

Type of school	Sex		Both (weighted)	Level of significance
	Boys	Girls		
NFPE	71.4	62.7	65.6	$p<0.05$
BEOC	58.4	49.0	52.3	$p<0.05$
NFPE-ESP	78.1	78.8	78.7	ns
All (weighted)	67.7	59.6	62.5	$p<0.01$
Level of significance	$p<0.001$	$p<0.001$	$p<0.001$	

ns: not significant at $p = 0.05$

Statistically significant gender difference was observed in the performance of the graduates of 2001 ($p<0.01$). Nearly 60 percent of the girls and 67.7 percent of the boys achieved basic competencies. On the other way, the boys were ahead of the girls with 8.1 percentage points. Gender difference was also seen in the performances of the graduates of two types of schools directly operated by BEP (i.e., NFPE and BEOC), not in NFPE under ESP. In both, the boys out-performed the girls. It can be mentioned that less than half of the girls of BEOC achieved all the four criteria of basic competency.

On average, 1.4 percent of the graduates achieved none of the competencies, 3.8 percent achieved only one, 12.7 percent achieved two, and 19.6 percent achieved three (Table 5). Nearly two percent of the girls and 0.2 percent boys achieved none of the basic competencies. Over a quarter of the BEOC graduates achieved three competencies and 14.5 percent achieved two. Compared to others proportion of graduates achieving two or three competencies was much higher for BEOC schools (41.2%). This indicates why the

graduates of these schools could not go with those of other types of schools in basic competency running.

Table 5

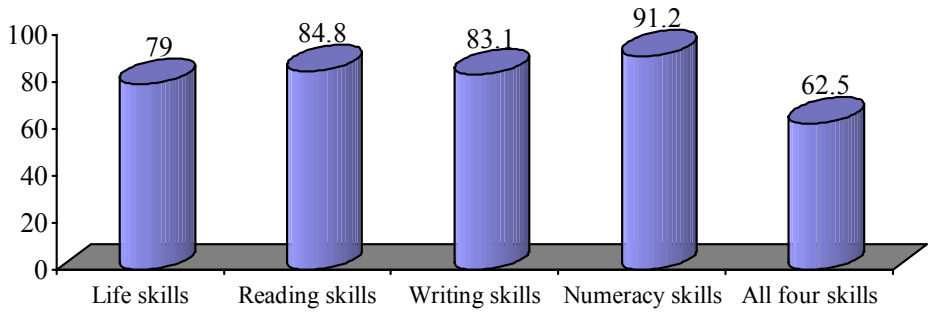
Percentage distribution of graduates by number of skills achieved, 2001

Number of skills	Sex		Type of school			All graduates
	Boys	Girls	NFPE	BEOC	NFPE-ESP	
Nil	0.2	1.9	1.7	1.2	0.7	1.4
1	3.2	4.1	3.1	5.5	3.1	3.8
2	11.8	13.4	12.8	14.4	5.8	12.7
3	17.1	21.0	16.8	26.6	11.7	19.6
4	67.7	59.6	65.6	52.3	78.7	62.5

Graduates overall performances in each of the four skill areas are presented in Figure 1. Graduates, on average, did very well in numeracy and poorly in life skills/ knowledge. Seventy nine percent of the graduates of 2001 satisfied the criteria of life skills, 84.8 percent reading skills, 83.1 percent writing skills and 91.2 percent numeracy skills.

Figure 1

Percentage of graduates satisfying different basic competency criteria, 2001



Statistically significant gender difference favouring boys was observed in reading, writing and numeracy, not in life skills/ knowledge (Table 6). Such variation was much higher in numeracy than other skill areas, 95.4 percent boys and 89.2 percent girls

achieved the criteria of numeracy ($p<0.001$). In life skills, the graduates of both gender performed equally.

Table 6

Percentage of graduates satisfying different basic competency criteria by sex

Skill areas	Sex		Both	Level of significance
	Boys	Girls		
Life skills	80.6	78.0	79.0	ns
Reading skills	87.6	83.3	84.8	$p<0.05$
Writing skills	85.7	81.7	83.1	$p<0.05$
Numeracy skills	95.4	89.2	91.2	$p<0.001$

ns: not significant at $p = 0.05$

Like overall performance, skills-wise analysis also shows a wide variation by school type (Table 7). Such variation was observed in three skill areas viz., life skills, reading and writing. In all the three skill areas, the graduates of NFPE under education support programme showed best performance and the graduates of BEOC did worst. Of the skill areas assessed under this study, highest variation by school type was shown in life skills, over 20 percentage points. In life skills, 70.4 percent of BEOC graduates, 81.9 percent of NFPE, and 90.7 percent of NFPE-ESP crossed the minimum level of competency. Such a poor performance of the BEOC graduates in life skills /knowledge lead them to do poorly in overall competency race. No statistically significant school-wise variation was seen in numeracy. Ninety percent or more of the graduates of all the three types of schools achieved numeracy competency.

Table 7

Percentage of graduates satisfying minimum criteria in different skill areas by school type

Skill areas	Type of school			Level of significance
	NFPE	BEOC	NFPE-ESP	
Life skills	81.9	70.4	90.7	$p<0.001$
Reading skills	86.6	80.0	89.2	$p<0.001$
Writing skills	83.5	80.2	91.1	$p<0.001$
Numeracy skills	90.0	93.1	93.5	ns

ns: not significant at $p = 0.05$

Analyses of data by school type and sex are presented in Annex 2. No gender difference was observed among any group of graduates in two skill areas viz., life skills and writing. In reading, only the boys of NFPE did better then the girls of similar type of schools. On the other hand, in numeracy, the boys of all the three types of schools showed better performance than the girls.

Literacy was defined considering three skill areas viz., reading, writing and numeracy. In other words, literacy is nothing but 'basic education' minus the 'life skills'. On average, 71.3 percent of the graduates satisfied the criteria of 'literacy'. Literacy rate was 76.3 percent for boys and 68.5 percent for girls ($p<0.001$). Similar to basic competency, school type-wise significant variation was observed in the case of literacy. The graduates of NFPE-ESP did best and the graduates of BEOC did the worst. Separately, 81.1 percent of NFPE-ESP, 72.7 percent of NFPE, and 65.9 percent of BEOC graduates had literacy skills. Statistically significant gender difference favouring boys was observed only among the graduates of NFPE schools (79% vs. 69.4%; $p<0.05$).

Table 8

Percentage of graduates satisfying literacy criteria (the 3Rs) by type of school and sex, 2001

Type of school	Sex		Both (weighted)	Level of significance
	Boys	Girls		
NFPE	79.0	69.4	72.7	p<0.05
BEOC	69.9	63.8	65.9	ns
NFPE-ESP	81.9	80.8	81.1	ns
All (weighted)	76.3	68.5	71.3	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

ns: not significant at p = 0.05

Trends in basic competencies

This section presents trends and changes in the level of basic competencies of the graduates of BRAC schools. It has four parts. The first part provides information on overall trend in basic competency level over the last six years (1995 to 2001). The second part shows the changes in basic competency level of the graduates of 1995 over a period of six years, the third part shows such change of the graduates of 1997 over a period of

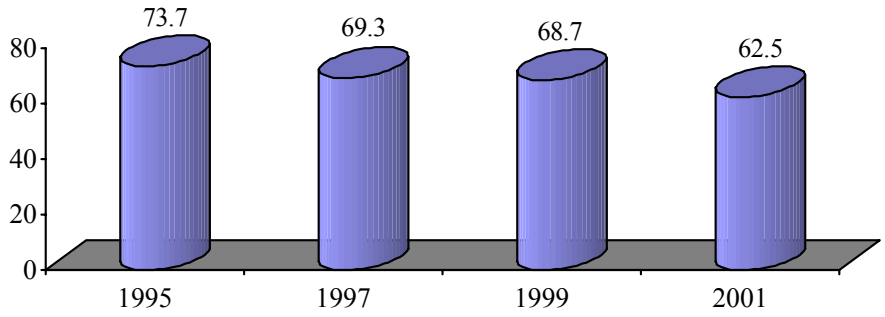
four years (1997 to 2001), and the fourth part shows such change of the graduates of 1999 over a period of two years (1999 to 2001)

Overall trends: 1995 to 2001

Four separate representative samples from the graduates of four different cohorts were analysed in this part; these are the graduates of 1995, 1997, 1999, and 2001. As each sample represents the graduates of that cohort this analysis gives an assessment of the system over the period. Figure 2 presents proportion of graduates satisfying all the basic education criteria by year of graduation. It shows a statistically significant decline in the level of basic competencies of the BRAC school graduates ($p<0.001$). In 1995, the level of basic competencies was 73.7 percent, which reduced to 69.3 percent in 1997, 68.7 percent in 1999, and 62.5 percent in 2001. In other words, the level of basic competencies of the BRAC school graduates reduced 11.2 percentage points over the period of six years (1995 to 2001).

Figure 2

Percentage of graduates satisfying basic education criteria by year of graduation



Separate analyses for boys and girls are presented in Table 9. It shows that the level of basic education significantly deteriorated among both boys and girls. However, deterioration was more among the girls than boys (14.4 vs. 5.3 percentage points). Although there was no gender variation in the level of basic education of the BRAC school graduates during 1995 and 1997, the boys surpassed the girls afterwards. The boys of 1999 and 2001 showed significantly better performance compared to the girls. Another

observation is that in 1995 the girls were one-percentage points ahead of the boys, but now the boys are 8.1 percentage points ahead of the girls.

Table 9

Percentage of graduates satisfying all basic education criteria by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	73.0	68.4	73.9	67.7	p<0.05
Girls	74.0	69.7	66.5	59.6	p<0.001
All	73.7	69.3	68.7	62.5	p<0.001
Significance	ns	ns	p<0.01	p<0.01	

ns: not significant at p = 0.05

School type-wise similar analysis is provided in Table 10. The performance of the graduates of NFPE gradually reduced from 72.9 percent in 1995 to 65.6 percent in 2001, 7.3 percentage points over the period but such reduction was not statistically significant. The performance of BEOC graduates were slightly better than that of NFPE graduates in previous three surveys which rigorously reduced in the last survey. Performance of these graduates was 76.3 percent in 1995 that reduced to 52.3 percent in 2001, 24 percentage points over the period. Major reduction occurred from 1999 to 2001, 15.7 percentage points. The case of NFPE-ESP is different from others. In 1995, 75.3 percent of the graduates of NFPE-ESP had basic education which dropped to only 49 percent in 1997, again increased to 76.8 percent in 1999 and to 78.7 percent in 2001. No school-wise variation was observed in the performance in 1995, however such variation occurred in 1997 first and continued afterwards.

Table 10

Percentage of graduates satisfying all basic education criteria by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	72.9	69.0	67.9	65.6	ns
BEOC	76.3	71.2	68.0	52.3	p<0.001
NFPE-ESP	75.3	49.0	76.8	78.7	p<0.001
All	73.7	69.3	68.7	62.5	p<0.001
Significance	ns	p<0.001	p<0.01	p<0.001	

ns: not significant at p = 0.05

Table 11 provides performance of the graduates in different skill areas. On average, the performance of the graduates significantly declined in three skill areas viz., life skills, reading and numeracy. No significant variation was observed in writing over the period of six years. During last six years, graduates performance declined 8.5 percentage points in life skills, 4.8 percentage points in reading, 1.5 percentage points in writing, and 4.3 percentage points in numeracy. Although the situation declined in all the assessment areas, major reduction occurred in life skills.

Annexes 3 to 6 provide above analyses for boys and girls separately. No gender difference was occurred in life skills/ knowledge in any cohort of graduates. This means that on average, the students in BRAC schools are getting life skills knowledge without any gender bias. There was no gender variation in reading among the graduates of 1995 and 1997. However, the girls lagged behind the boys in the surveys of 1999 and 2001. No gender variation was seen in writing among the graduates of 1995 and 1999, but the girls out performed the boys in 1997 and the boys did so in 2001. In numeracy, the boys surpassed the girls in all the surveys.

Over the period, the performance of the boys significantly reduced in three assessment areas viz., life skills, writing and numeracy, but not in reading. On the other hand, girls performance significantly reduced over the period in all the assessment areas. Major deterioration occurred in life skills/ knowledge.

Table 11

Percentage of graduates satisfying different basic competency criteria by year of graduation

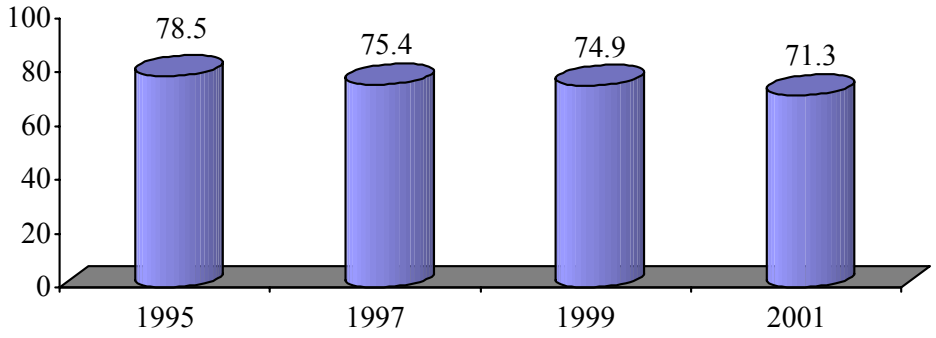
Skill areas	Year of graduation				Level of significance
	1995	1997	1999	2001	
Life skills	87.5	87.1	84.7	79.0	$p<0.001$
Reading skills	89.6	86.5	85.6	84.8	$p<0.01$
Writing skills	84.6	85.8	85.7	83.1	ns
Numeracy skills	95.5	93.6	92.0	91.2	$p<0.001$

ns: not significant at $p = 0.05$

Similar analyses by school type are provided in Annexes 7 to 10. Although performance of the graduates of NFPE reduced in all skill areas, however significant reduction was found only in numeracy. For BEOC, statistically significant reduction was occurred in all skill areas except writing. On the other hand, performance of the NFPE-ESP graduates suddenly dropped in 1997. However, they recovered it within a very short period. It is significant to mention that the graduates of NFPE-ESP showed best performance in 1999 and 2001 compare to those of other two types of schools.

As mentioned earlier, literacy is defined as 'basic education' minus 'life skills/ knowledge', in other words it is a combination of 3Rs viz., reading, writing and numeracy. Performance of the graduates reduced in literacy too (Figure 3). The literacy rate was 77.6 percent in 1995, 74.8 percent in 1997, 73.8 percent in 1999, and 72.7 percent in 2001. Such reduction is slower than that of 'basic education'. This is because highest loss of competency occurred in 'life skills/knowledge', which is not counted in measuring 'literacy'.

Figure 3
Percentage of graduates satisfying literacy criteria (3R's) by year of graduation



Sex-wise analysis of literacy shows that literacy rate significantly reduced for both boys and girls (Table 12). However, the speed was faster for girls than boys. There was no statistically significant gender variation during first two surveys, however it is in place since 1999. In 1999 and afterwards the girls were seen lagging behind the boys in literacy performance.

Table 12

Percentage of graduates satisfying literacy criteria (3R's) by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	80.0	76.3	81.4	76.3	$p<0.05$
Girls	77.8	75.1	72.0	68.5	$p<0.001$
All	78.5	75.4	74.9	71.3	$p<0.001$
Significance	ns	ns	$p<0.001$	$p<0.001$	

ns: not significant at p = 0.05

Literacy analysis by school type is provided in Table 13. No significant variation was observed in the literacy rate of the NFPE graduates over the years. However, it gradually decreased among the graduates of BEOC, 80.9 percent in 1995 to 65.9 percent in 2001. On the other hand, this rate was 81-82% among the graduates of NFPE-ESP in all the years except 1997.

Table 13

Percentage of graduates satisfying literacy criteria (3R's) by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	77.6	74.8	73.8	72.7	ns
BEOC	80.9	79.0	75.2	65.9	$p<0.001$
NFPE-ESP	81.1	57.1	81.6	81.1	$p<0.001$
All	78.5	75.4	74.9	71.3	$p<0.001$
Significance	ns	$p<0.001$	$p<0.05$	$p<0.001$	

ns: not significant at p = 0.05

Proportion of girls is more than that of the boys in BRAC schools (about two-thirds). The performance of these majority graduates is deteriorating more rapidly than that of the

boys. This ultimately reflects in the overall performance of BRAC education programme. Although the performance of the graduates of NFPE-ESP is much better than others, but their representation in the whole system is tiny. That's why this sub-system, with its little strength (number of graduates), could not do much impact on the overall performance of the system. Very poor performance of the BEOC graduates in life skills/knowledge caused much in the worsen performance of the latest cohort of graduates.

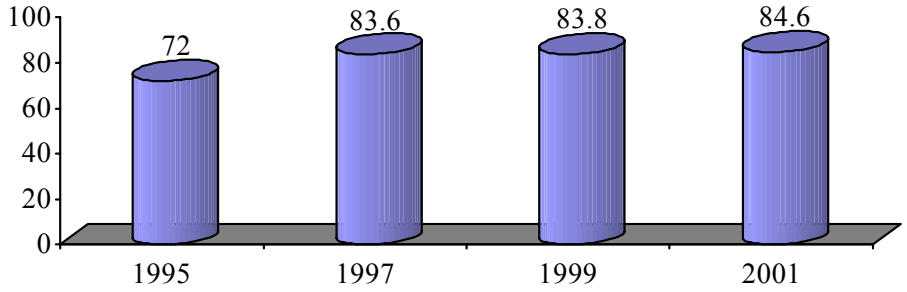
Tracing the graduates of 1995

This part analyses data on the basic educational performance of the graduates of 1995 who were traced and tested in four successive surveys during 1995, 1997, 1999 and 2001. As mentioned already that 1,259 graduates of 1995 who were surveyed in the same year were attempted to trace during the following three surveys. However, the success rate reduced over the period and only 417 graduates (a third of the original sample) could be traced and tested in all the four surveys. Thus, the findings of this part are based on the test results of these 417 graduates of 1995.

The level of basic education of the graduates of 1995 increased over time; from 72 percent in 1995, to 83.6 percent in 1997, 83.6 percent in 1999, and 84.6 percent in 2001 (Figure 4). It was seen that the major increment occurred after two years of their graduation in 1997. Similar trend was observed in the case of literacy (Table 14). Gender-wise analyses of data show a smooth upward trend in the performance of the girls (Annex 11). About 72 percent of the girls had basic education in 1995, which increased to 83.4 percent in 1997, 85.2 percent in 1999, and 86 percent in 2001. On the other hand, boys performance curve was not smooth like as that of the girls. Although the percentage of boys having basic education increased from 1995 to 1997, it dropped afterwards. Another dimension of gender-wise analyses is that the boys were ahead of the girls up to 1997. However, the results reversed afterwards. The 2001 survey shows that 80.9 percent of the boys and 86 percent of the girls satisfied all the four criteria of basic education.

Figure 4

Percentage of graduates of 1995 who were tested in four successive surveys satisfying basic education criteria by year of survey (n=417)



An upward trend was also observed when data were analysed for different skill areas (Table 14). Over 97 percent of the graduates satisfied the criteria of life skills/ knowledge in 2001, which was 93.4 percent in reading and 91.3 percent in writing. Analysis by gender also shows similar findings for boys and girls. Performance in writing skills suddenly dropped in 1999, which again increased in 2001. Again in reading, performance dropped from 97.4 percent in 1999 to 93.4 percent in 2001. It may be mentioned here that as proportion of girls was double than that of boys in the population, the performance of the girls influenced most in the pooled estimates. One interesting observation is that percentages of graduates achieving basic education and literacy became more or less equal, which was not seen in first survey. This is because about all students acquired life skills knowledge by this time.

Table 14

Percentage of graduates of 1995 who were followed up in 1997, 1999 and 2001 satisfying different skills criteria by year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
1995	86.3	90.5	83.5	94.1	76.7	72.0
1997	96.2	92.8	89.4	99.1	84.9	83.6
1999	97.8	97.4	85.5	99.1	85.2	83.8
2001	97.5	93.4	91.3	98.1	85.7	84.6

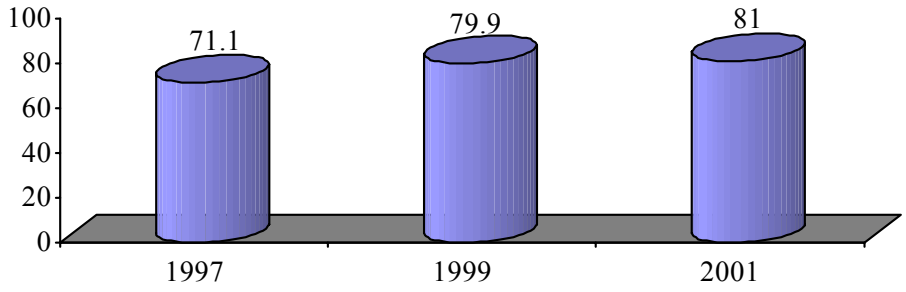
Similar analyses by school type are presented in Annex 12. Although no smooth trend was observed in the basic educational performance of any of the sub-systems, an upward tendency was seen in the overall performances of NFPE and BEOC. However, a big drop was occurred for NFPE-ESP between 1999 and 2001. Similar findings can be seen in the case of literacy too.

Tracing the graduates of 1997

This part analyses data on the basic educational performances of the graduates of 1997 who were traced and tested in three successive surveys in 1997, 1999 and 2001. It may be mentioned here that 1,259 graduates of 1997 who were tested in the same year were attempted to re-test during the following two surveys. However, the success rate reduced over the period and only 717 graduates (NFPE 251, BEOC 221 and NFPE-ESP 245) could be traced and tested in all the three surveys. Thus, the findings of this part are based on the test results of these 717 graduates of 1997.

Figure 5

Percentage of graduates of 1997 who were tested in three successive surveys satisfying basic education criteria by year of survey (n=717)



The level of basic education of the graduates of 1997 who were tested in the three successive surveys increased over time (Figure 5). Over 70 percent of these graduates had basic education in 1997, which increased to 79.9 percent in 1999 and to 81 percent in

2001. The highest increase was occurred during the first and second surveys. Gender wise analysis of data shows such smooth progress among the girls, from 73 percent in 1997 to 79.1 percent in 1999 and 82.7 percent in 2001. On the other hand, boys performance increased from 67.1 percent in 1997 to 81.2 percent in 1999, and then decreased to 77.5 percent in 2001 (Annex 13). Similar trend was observed in literacy. Overall, the literacy rate was 76.4 percent in 1997, which increased to 83.5 percent in 1999, and to 83.2 percent in 2001 (Table 15). The 2001 survey shows that 79.9 percent boys and 84.7 percent girls are literate (Annex 13).

Skill-wise analysis shows that performance of the graduates increased in three areas viz., life skills knowledge, reading and numeracy (Table 15). Around 95 percent of the graduates satisfied the minimum criteria in these areas in 2001. Not much change was occurred in writing. Gender segregated analysis also shows similar trend for both the boys and girls (Annex 13).

Table 15
Percentage of graduates of 1997 who were followed up in 1999 and 2001 satisfying different skills criteria by year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
1997	86.5	87.2	87.8	93.7	76.4	71.1
1999	92.9	93.5	89.0	96.5	83.5	79.7
2001	94.4	94.7	87.3	96.6	83.2	81.0

School type-wise analyses of these data are presented in Annex 14. Poor performance of the graduates of NFPE-ESP at the initial year (i.e., in 1997) is also reflected here. A considerable improvement of their performance was seen after two years, over 80 percent of them satisfied the criteria of basic education in 1999; however it dropped at 71 percent in 2001. This is not the case for other groups of graduates. Among the graduates of NFPE, 71.1 percent of them had basic education which increased to 80.3 percent in 1999 and again to 81.5 percent in 2001. For BEOC the rate of basic education was 71.8

percent, which increased to 75.9 percent in 1999, and 78.9 percent in 2001. More analyses on different skill areas are available in Annex 14.

Tracing the graduates of 1999

This part presents results of the graduates of 1999 who were tested in the surveys of both 1999 and 2001. Of the 1,259 graduates tested in 1999, 945 (NFPE 321, BEOC 299 and NFPE-ESP 325) were found and tested in 2001 (52% being girls). This part presents data of 945 graduates of 1999.

Like other cohorts, basic educational performance of the graduates of 1999 increased significantly within two years of their graduation. The level of basic education of these graduates was 68.7 percent in 1999 which increased to 73.9 percent in 2001 (Table 16). Gender wise analysis shows that the boys were in a better position than girls in the initial survey (73.2% vs. 67%). However, over the period the level increased only among the girls (67% to 74%), not among the boys. Similar tendency was seen in literacy.

Skill area-wise analysis shows that improvement occurred in two areas viz., reading and numeracy (Table 16). The performance of the boys deteriorated in life skills knowledge while that of the girls improved in numeracy (Annex 15).

Table 16

Percentage of graduates of 1999 who were followed up in 2001 satisfying different skills criteria by year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
1999	84.3	86.9	85.7	91.4	75.2	68.7
2001	83.4	88.6	85.5	94.7	80.0	73.9

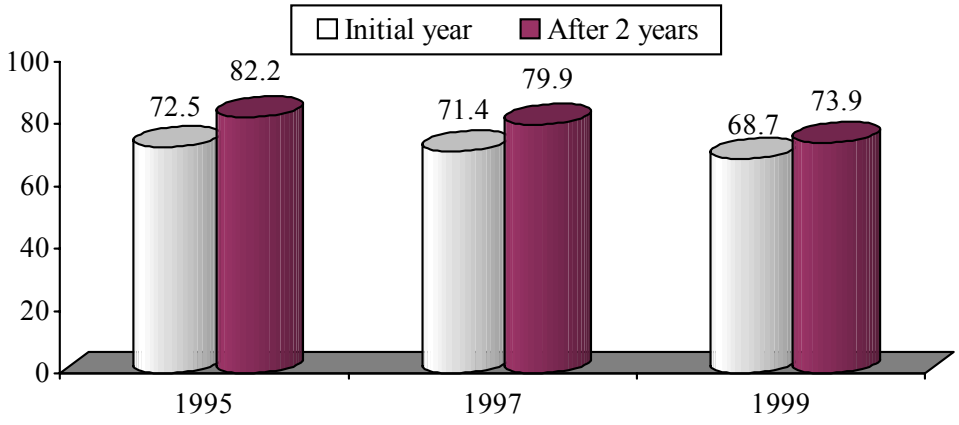
School type-wise analyses noticed improvement in NFPE and NFPE-ESP. The performance of the graduates of NFPE improved 7.1 percentage points (67.3% to 74.4%), which was three percentage points for NFPE-ESP graduates (76.3% to 79.3%). Annex 6 provides more analysis.

Performance after two years of graduation

As mentioned earlier, three cohorts of graduates viz., 1995, 1997 and 1999 were tested during the respective year of graduation and again re-tested after two years. As mentioned earlier, the volume of the sample reduced to three fourths or so during the second surveys. The basic educational performance of the graduates of BRAC schools increased over time due to their enrolment in formal schools for further education. Such performance occurred more during the first two years of graduation. Figure 6 presents a comparison of such improvements among different cohorts of graduates. The figure shows that the basic educational performances of the graduates of all three cohorts did not improve equally. The gaps between the performances (initial and after two years) became narrower over time. For instance, after two years of graduation the performance of the graduates of 1995 improved 9.7 percentage points, which was 8.5 percentage points for the graduates of 1997, and 5.2 percentage points for those of 1999. This indicates that the former graduates of recent cohorts were performing less compared to those of earlier cohorts.

Figure 6

Improvement in the level of basic education after two years of their graduation from BRAC schools by different years of graduation



Discussion and conclusion

In order to assess the basic educational performance of the graduates of BRAC non-formal primary schools the Research and Evaluation Division of BRAC initiated a system called 'tracer study'. This is the fourth report of this effort. The instrument used in this study was developed in Bangladesh after the World Conference held in Jomtien in 1990 (WCEFA, 1990; UNICEF, 1992; Chowdhury et al., 1994). The instrument is based on the ideas of basic education formulated in the Jomtien Declaration. This system allows us to see the overall performance of the BRAC schools continuously and also to compare the performance of one cohort of graduates with others. Quality of data is a major concern in any educational study. Adequate measures were taken to ensure quality of data collected for this study. After each survey there was a provision of re-survey of some of the indicators on some selected sample. Matching of test and re-test data for over 90 percent cases indicates a high quality of data. Reliability test through Kuder-Rechardson formula showed over 87% reliability of the data.

Findings of this study have two major parts, one is the trend in overall performance of BRAC schools and the other is the performance of former graduates over time. The first part shows performance of an on-going education provision and the second part shows the sustainability of learning achievement. The second part has some limitations. It was not possible to trace all the former graduates during resurveys. Sample size reduced over time, for instance, only a third of the initial sample was common in all four surveys of the graduates of 1995. Such reduction of sample size has a negative impact on the representativeness of the sample. There is also a possibility of a section of the sample with special characteristics to be common in all the surveys. These ultimately increase sampling error and bias in the estimates. Fortunately, we did not see much difference among the graduates who were tested in all the four surveys and who were not. Only the graduates who were younger in age were more likely to be tested more times. No difference was noticed against other socio-economic characteristics.

The findings of the four surveys held during the last six years reveal that overall performance of BRAC schools is declining. It was found that 62.5 percent of the graduates of 2001 satisfied all the four criteria of basic education; this was 68.7 percent in 1999, 69.3 percent in 1997, and 73.7 percent in 1995. That is, 11.2 percentage points reduced over six years, on average nearly two percentage points a year. The earlier report of this kind written two years back also noticed that overall performance of the BRAC school graduates is going down (Nath 2000). The report also highlighted that major deterioration occurred in reading and numeracy. This year's findings just added a new area where significant deterioration was seen; this is life skills/knowledge. Such results indicate that during the last two years no improvement was occurred in any of the skill areas. Probably the programme did not considered the findings of earlier study seriously and no effort seems to be given to resist the declining situation.

It is frustrating to see that BRAC schools are doing worse gradually in life skills. During its early age, incorporation of life skills in the curriculum was a strong point for justification of BRAC primary education programme. Life skills related competencies are given more importance in BRAC prepared textbooks, which are used for the students of first three grades (Ghosh, 1999). Moreover, BRAC school students were seen doing much better than their government counterpart compared to other areas of assessment (Nath et al, 1999). Probably, the situation has gradually been changed in practice. Putting life skills related matters into the textbooks does not ensure its proper delivery to the students. This study did not see what actually happened in the classrooms, but at least the end product hints about less emphasis on life skills knowledge. When major deterioration occurs in BEOC (16.6 percentage points within two years) where no NCTB textbook is used, one must think about the issue seriously. There is a need to have close monitoring of classroom activities.

Another important feature of BRAC non-formal primary education programme is its strong commitment to girls' education. When there was a wide gap favouring boys education nationally, going 'against the wind', BRAC decided to enrol more girls into its

school programme. Still now, two thirds of the students in BRAC schools are girls. Not only in access, it was possible to ensure girls attainment equally with the boys. The studies of this series conducted in 1995 and 1997 did not see any gender discrimination in the basic educational attainment of the graduates of BRAC schools (Nath et al., 1996; 1998). However, sadly, gender discrimination favouring boys was first appeared among the graduates of 1999 when the third 'tracer study' was done (Nath, 2000). It showed that the girls were behind the boys with 7.4 percentage points (66.5% vs. 73.9%; $p<0.01$). This study again showed that such gender discrimination is continuing, the girls were 8.1 percentage points behind the boys in 2001. During last six years, the performance of boys deteriorated 5.3 percentage points, but for girls it was 14.4 percentage points. The girls are the majority in BRAC schools and they are gradually doing worse. Such a rapid deterioration of the girls performance actually geared downward slopping of overall result.

Skill-wise analysis showed that gender difference against girls was noticed twice in reading (1999 and 2001) and writing (1997 and 2001), and in numeracy in all the four surveys. It reveals that the areas of gender discrimination are also increasing day by day. After the second survey of this series an independent attempt was made to identify the reasons behind gender difference in mathematics in BRAC non-formal primary schools (Shahjamal, 2000). This study portrayed how girls are discriminated through the teaching process, peer interaction, social norms, and believes of the teachers and the pupils. There is shortage of awareness on this issue among the managers at grassroots level. It is not known how far the recommendations of the study were translated into practice. However, we can just reiterate some of those which still needs serious consideration.

1. There is a need to prepare a guideline for the teachers and the programme organisers which can help them shaping their attitude and behaviour in order to make it more gender sensitive.
2. Such an issue should be discussed in the training sessions and meetings at all levels. Monthly refreshers' training of the teachers, regular meeting of the

programme organisers, and parent-teacher meeting could be very important places for such discussion.

3. Gender segregated analysis should be a common issue in all performance monitoring, academic supervision, and school evaluation activities.

It should be mentioned here that no gender difference was found in any of the cohort in life skills/ knowledge.

Three types of BRAC schools are of interest of the 'tracer study'. BRAC education programme directly operates the largest two of these (NFPE and BEOC), and the rest one (NFPE-ESP) some local NGOs. To run the schools BRAC provides training to the teachers and programme organisers, supplies school materials and provides financial support to small NGOs through its Education Support Programme (ESP). A team stationed at BRAC's Training Division operates the ESP. Interestingly, the schools under ESP are gradually doing better with exception in 1997, it did very poor at that time (Nath, 1998). The performance of NFPE and BEOC is declining over time. However, BEOC is declining more rapidly than NFPE. BEOC's performance in 2001 was seriously damaging like that of ESP in 1997. A careful investigation is needed to find out the causes behind such deteriorating performance. Earlier the name of the department of BRAC, which run education programme, was known as Non-formal Primary Education (NFPE). It mostly looked after NFPE and BEOC types of schools and did some activities of continuing education. Some years ago, the name has changed and the areas of activities increased a lot, including extension of NFPE up to fifth grade. These might increase the workload of the grassroots level programme organisers of these schools, which is not the case for the programme organisers under ESP. There is a need to see the workload of the programme organisers under BEP whether they are able adequately to look at all the schools within their jurisdiction. Quality of monthly refreshers' training should also be investigated. Do we give adequate attention to the BEOC schools? Are the NFPE schools running up to fifth grade getting more attention? Because NCTB determined competency tests are done on them only. In-depth studies are needed on each of these issues.

There is a provision of school evaluation in BRAC Education Programme, which is done by two separate groups of people (monitors and programme organisers). School evaluation is a good practice if it is done scientifically in order to improve pupils' quality and reduce inequity among the students. The issue was discussed in two recent studies done by the Research and Evaluation Division which identified some of the limitations of the existing practice (Nath, 2002a, 2002b). It can just be reiterated the need for a scientific school evaluation system and its use in academic improvement of the school programme of BRAC. In other words, an attempt may be taken to set up a quality monitoring system incorporating indicators on classroom activities, attainment of the students, and gender related matters.

BRAC Education Programme is mostly a donor dependent programme. It faced a serious financial crisis at the beginning of the year 2000 due to donors' late commitment for funds, which continued till September 2000. This affected the human resource of the education programme especially at the field level. The programme was unable to continue their service. To cope with the situation a good number of senior as well as qualified field level manages were transferred to other programmes of BRAC, for instance in BRAC Development Programme (BDP). In many cases, relatively junior programme organisers were given the charge of the team offices. In some cases one such person was made in-charge of two team offices. This might affect in field operations of school programme. Pedagogical supervision of schools and teachers training might be deprived at this, which ultimately affected the performance of the students of 2001. If this is true, the question arose how such a donor dependent non-formal education programme can continue keeping its quality at an acceptable level. The donors' consortium for BRAC education programme has to do something in order to strengthen BRAC's capacity to encounter such crisis. Justification for this is that BRAC has proven capacity to provide quality primary education for the children. We should not compromise with quality education for which we are committed to.

References

Chowdhury AMR, Ziegahn L, Haque N, Shreshtha GJ and Ahmed Z (1994). Assessing basic competencies: a practical methodology. International Review of Education. 40(6): 437-454.

Nath SR (2002). School evaluation mechanism in BRAC education programme. Paper presented in the ANTRIEP policy seminar on school evaluation for quality improvement, held in Kuala Lumpur, Malaysia 2–4 July 2002.

Nath SR and Chowdhury AMR (2002). Level and Trends of basic education in Bangladesh: 1993-1998. *Educational Studies*, 28(1): 77-92.

Nath SR (2002). Achievement of competencies of the students of BRAC non-formal primary schools. Dhaka: Research and Evaluation Division, BRAC.

Nath SR (2000). Basic competencies of the graduates of BRAC's non-formal schools: levels and trends from 1995 to 1999. Dhaka: Research and Evaluation Division, BRAC.

Nath SR, Sylva K and Grimes J (1999). Raising basic education levels in Bangladesh: the impact of a non-formal education programme. *International Review of educ*ation. 45(1): 5-26.

Nath SR, Imam SR and Chowdhury AMR (1998). Levels of basic competencies of the BRAC school graduates of 1995 and 1997. Dhaka: Research and Evaluation Division, BRAC.

Nath SR, Chowdhury AMR (1996). Basic competencies of the graduates of BRAC schools of 1995. Dhaka: Research and Evaluation Division, BRAC.

Nath SR, Mohsin M and Chowdhury AMR (1993). *Assessment of basic competencies of the children in Bangladesh 1993*. Dhaka: Research and Evaluation Division, BRAC.

Shahjamal MM (2000). Causes behind gender difference in mathematics: an exploratory study in BRAC schools. An unpublished dissertation for the fulfilment of the degree of Master of Education, Institute of Education and Research, University of Dhaka.

UNICEF (1992). Assessment of basic competencies of children in Bangladesh. Dhaka, UNICEF.

WCEFA (1990). World conference on education for all: meeting learning needs. Jomtien, Thailand:

WCEFA (1990). Meeting basic learning needs: a vision for the 1990's. New York: WCEFA.

Annex 1 Number of graduates surveyed and resurveyed in various years by school type and sex

	Graduates of 1995				Graduates of 1997			Graduates of 1999		Graduates of 2001
	surveyed in 1995	resurveyed in 1997	resurveyed in 1999	resurveyed in 2001	surveyed in 1997	resurveyed in 1999	resurveyed in 2001	surveyed in 1999	resurveyed in 2001	surveyed in 2001
NFPE										
Boys	210	164 (78.1)	143 (68.1)	102 (48.6)	211	174 (82.5)	143 (67.8)	210	152 (72.4)	210
Girls	210	168 (80.0)	132 (62.8)	112 (53.3)	210	168 (80.0)	143 (68.1)	210	169 (80.5)	209
Both	420	332 (79.0)	275 (65.5)	214 (50.9)	421	342 (81.2)	286 (67.9)	420	321 (76.4)	419
BEOC										
Boys	207	151 (72.9)	129 (62.3)	87 (42.0)	210	168 (80.0)	143 (68.1)	207	144 (69.6)	209
Girls	213	154 (72.3)	120 (56.3)	93 (43.7)	210	154 (73.3)	114 (54.3)	213	155 (72.8)	210
Both	420	305 (72.6)	249 (59.3)	180 (42.8)	420	322 (76.7)	257 (61.2)	420	299 (71.2)	419
NFPE-ESP										
Boys	191	130 (68.1)	143 (74.9)	104 (54.7)	207	161 (77.8)	146 (70.5)	209	158 (75.6)	210
Girls	228	178 (78.1)	145 (63.6)	109 (47.8)	211	166 (78.7)	138 (65.4)	210	169 (80.5)	208
Both	419	308 (73.5)	288 (68.7)	213 (69.2)	418	327 (78.2)	284 (67.9)	419	325 (77.6)	418
Total	1259	945 (75.1)	812 (64.5)	607 (48.2)	1259	991 (78.7)	827 (65.7)	1259	945 (75.1)	1256

Annex 2: Percentage of graduates satisfying different basic competency criteria by type of school and sex, 2001

Type of school	Sex		Both (weighted)	Level of significance
	Boys	Girls		
Life skills				
NFPE	84.8	80.4	81.9	ns
BEOC	70.3	70.5	70.4	ns
NFOE-ESP	89.5	91.3	90.7	ns
All (weighted)	80.6	78.0	79.0	ns
Level of significance			p<0.001	
Reading skills				
NFPE	90.5	84.7	86.6	p<0.05
BEOC	81.8	79.0	80.0	ns
NFOE-ESP	89.0	89.4	89.2	ns
All (weighted)	87.6	83.3	84.8	p<0.05
Level of significance			p<0.001	
Writing skills				
NFPE	85.7	82.3	83.5	ns
BEOC	84.2	78.1	80.2	ns
NFOE-ESP	91.4	90.9	91.1	ns
All (weighted)	85.7	81.7	83.1	p<0.05
Level of significance			p<0.001	
Numeracy skills				
NFPE	94.8	87.6	90.0	p<0.01
BEOC	96.2	91.4	93.1	p<0.05
NFOE-ESP	96.7	91.8	93.5	p<0.05
All (weighted)	95.4	89.2	91.2	p<0.001
Level of significance			ns	

Annex 3 Percentage of graduates satisfying life skills criteria by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	85.9	85.0	84.1	80.6	p<0.05
Girls	88.2	87.9	85.0	78.0	p<0.001
All	87.5	87.1	84.7	79.0	p<0.001
Significance	Ns	ns	ns	ns	

Annex 4 Percentage of graduates satisfying reading skills criteria by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	90.7	87.2	88.8	87.6	ns
Girls	89.1	86.2	84.2	83.3	p<0.05
All	89.6	86.5	85.6	84.8	p<0.01
Significance	ns	ns	p<0.05	p<0.05	

Annex 5 Percentage of graduates satisfying writing skills criteria by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	83.5	81.2	88.2	85.7	p<0.01
Girls	84.9	87.8	84.7	81.7	p<0.05
All	84.6	85.8	85.7	83.1	ns
Significance	ns	p<0.001	ns	p<0.05	

Annex 6 Percentage of graduates satisfying numeracy skills criteria by year of graduation and sex

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
Boys	98.1	97.6	98.7	95.4	p<0.001
Girls	94.5	91.7	89.1	89.2	p<0.01
All	95.5	93.6	92.0	91.2	p<0.001
Significance	p<0.001	p<0.001	p<0.001	p<0.001	

Annex 7 Percentage of graduates satisfying life skills criteria by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	86.4	87.4	83.1	81.9	ns
BEOC	91.5	86.9	87.0	70.4	p<0.001
NFPE-ESP	85.7	69.5	89.3	90.7	p<0.001
All	87.5	87.1	84.7	79.0	p<0.001
Significance	p<0.05	p<0.001	p<0.05	p<0.001	

Annex 8 Percentage of graduates satisfying reading skills criteria by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	88.8	86.2	84.0	86.6	ns
BEOC	92.9	88.6	88.2	80.0	p<0.001
NFPE-ESP	88.9	72.1	90.0	89.2	p<0.001
All	89.6	86.5	85.6	84.8	p<0.01
Significance	ns	p<0.001	p<0.05	p<0.001	

Annex 9 Percentage of graduates satisfying writing skills criteria by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	84.0	86.9	85.2	83.5	ns
BEOC	85.3	82.4	85.8	80.2	ns
NFPE-ESP	88.0	66.9	88.5	91.1	p<0.001
All	84.6	85.8	85.7	83.1	ns
Significance	ns	p<0.001	ns	p<0.001	

Annex 10 Percentage of graduates satisfying numeracy skills criteria by year of graduation and school type

Sex	Year of graduation				Significance
	1995	1997	1999	2001	
NFPE	95.0	93.3	91.0	90.0	p<0.05
BEOC	97.2	94.8	93.4	93.1	p<0.05
NFPE-ESP	95.4	88.8	95.5	93.5	p<0.001
All	95.5	93.6	92.0	91.2	p<0.001
Significance	ns	p<0.01	p<0.05	ns	

Annex 00 Percentage distribution of graduates by number of skills achieved and year

Number of skills	Year of graduation			
	1995	1997	1999	2001
Nil	0.6	1.2	1.5	1.4
1	3.7	2.5	4.1	3.8
2	7.2	7.8	7.9	12.7
3	14.8	19.2	17.8	19.6
4	73.7	69.3	68.8	62.5

Annex 11 Percentage of graduates of 1995 who were followed up in 1997, 1999 and 2001 satisfying different skills criteria by sex and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1995	82.2	91.9	84.7	100.0	80.8	72.2
1997	98.1	93.8	90.4	99.5	85.6	84.1
1999	97.1	94.3	83.7	100.0	82.3	79.9
2001	97.6	93.8	88.5	99.0	82.7	80.9
Girls						
1995	87.7	89.8	83.1	91.9	75.3	71.9
1997	95.7	92.4	89.0	99.1	84.7	83.4
1999	97.9	98.7	86.4	98.7	86.4	85.2
2001	97.5	93.2	92.3	97.9	86.8	86.0

Annex 12 Percentage of graduates of 1995 who were followed up in 1997, 1999 and 2001 satisfying different skills criteria by school type and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
NFPE						
1995	85.1	88.9	82.7	93.2	74.7	70.4
1997	96.3	92.0	91.9	100.0	87.0	85.7
1999	97.5	97.5	85.7	99.4	85.2	83.9
2001	98.1	93.8	92.6	98.8	86.4	85.2
BEOC						
1995	92.4	98.3	85.5	100.0	84.6	78.0
1997	97.4	96.6	78.0	95.8	76.1	74.6
1999	99.1	99.1	84.6	99.1	84.6	83.9
2001	95.7	91.5	86.3	94.9	83.8	82.9
NFPE-ESP						
1995	87.1	89.2	89.1	93.2	83.7	78.4
1997	93.9	93.2	89.2	94.6	85.0	81.6
1999	97.3	94.6	86.5	98.6	86.4	85.0
2001	98.0	91.8	82.3	96.6	77.6	76.9

Annex 13 Percentage of graduates of 1997 who were followed up in 1999 and 2001 satisfying different skills criteria by sex and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1997	83.6	85.7	81.5	97.6	73.5	67.1
1999	90.5	92.8	88.1	98.7	85.4	81.2
2001	94.7	93.9	84.1	97.6	79.9	77.5
Girls						
1997	87.7	87.7	90.8	91.6	77.7	73.0
1999	93.9	93.9	89.4	95.5	82.7	79.1
2001	94.2	95.0	88.8	96.1	84.7	82.7

Annex 14 Percentage of graduates of 1997 who were followed up in 1999 and 2001 satisfying different skills criteria by school type and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
NFPE						
1997	86.7	87.1	88.8	93.6	76.7	71.1
1999	92.8	94.0	89.6	96.8	84.3	80.3
2001	94.0	95.2	88.0	96.4	83.9	81.5
BEOC						
1997	86.8	87.3	83.1	94.3	75.9	71.8
1999	92.9	91.5	86.8	95.3	79.8	75.9
2001	97.2	92.5	84.0	97.6	80.2	78.9
NFPE-ESP						
1997	71.7	76.2	70.9	89.4	61.5	51.0
1999	90.2	93.4	89.0	96.3	85.3	80.8
2001	90.2	85.7	85.7	92.6	74.6	71.0

Annex 15 Percentage of graduates of 1999 who were followed up in 2001 satisfying different skills criteria by sex and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
Boys						
1999	84.3	89.4	88.5	98.5	81.5	73.2
2001	80.1	90.9	87.2	98.5	82.1	73.5
Girls						
1999	84.3	86.1	84.7	88.7	72.8	67.0
2001	84.7	87.7	84.7	93.2	79.1	74.0

Annex 16 Percentage of graduates of 1999 who were followed up in 2001 satisfying different skills criteria by school type and year of interview

Survey year	Life skills	Reading	Writing	Numeracy	Literacy	Basic education
NFPE						
1999	82.6	86.0	84.8	90.2	73.8	67.3
2001	82.3	88.4	84.8	94.2	80.2	74.4
BEOC						
1999	86.8	88.1	87.5	93.4	76.6	69.7
2001	83.9	87.8	85.5	96.0	77.6	70.3
NFPE-ESP						
1999	90.0	90.9	88.1	94.8	81.2	76.3
2001	88.4	91.5	89.6	96.0	84.1	79.3