Comparing Changes in Basic Competency, Literacy and Enrolment of Children in Matlab Between 1992 and 1995

AKM Masud Rana AMR Chowdhury Syed Masud Ahmed Abbas Bhuiyan

August 2000

BRAC-ICDDR,B Joint Research Project

BRAC Research & Evaluation Division, BRAC Centre, Dhaka, Bangladesh

Contents	Page
Contents	1
List of tables	2
Abstract	4
Introduction	5
Objectives	6
Methodology	7
Characteristics of the children	7
Specification of the test	8
Quality control	9
Test Paper marking, analysis and data entry procedures	9
Validation	9
Reliability	10
Results	11
Item analysis	20
Analysis of four selected villages included in both tests	22
Discussion and Conclusion	25
Appendix	27
References	28

List of tables

- **Table 1:** Distribution of test participants by age, gender and BRAC membership status of the household in 1995.
- **Table 2:** Percentage distribution of 6+ years population of study villages and their literacy by gender and BRAC membership eligibility in 1992 and 1995.
- **Table 3:** Percentage distribution of households by literacy level in 1992 and 1995.
- Table 4: Percentage distribution of children by enrolment and gender in 1992 and 1995.
- **Table 6:** Percentage distribution of BRAC eligible households children according to the BRAC membership status of the households in 1992 and 1995.
- **Table 7:** Percentage distribution of children 6-15 years from BRAC eligible households according to the membership status of their mothers in 1992 and 1995.
- **Table 7:** Enrolment of (11-15) years old boys and girls by type of school attended in 1992 and 1995.
- **Table 8:** Percentage distribution of children satisfying the basic education criteria by gender in 1992 and 1995.
- Table 9: Percentage distribution of children satisfying the basic education criteria by gender and BRAC eligibility in 1992 and 1995.
- Table 10: Percentage distribution of children satisfying the basic education criteria by BRAC membership eligibility and different intervention cells in 1992 and 1995.
- **Table 11:** Percentage distribution of children satisfying the basic education criteria by gender and type of school attended in 1992 and 1995.

- Table 12: Percentage distribution of children satisfying the 3R 's' criteria by gender and type of school attended in 1992 and 1995.
- **Table 13:** Percentage distribution of children who satisfied the different skills criteria by BRAC membership status and gender in 1992 and 1995.
- **Table 14:** Percentage distribution of children who correctly answered each item by gender in 1995.
- Table 15: Percentage distribution of (11-15) year's of children of the four selected villages by gender and enrolment status in 1992 and 1995.
- **Table 16:** Percentage distribution of children of four villages satisfying the basic education criteria in 1992 and 1995.
- **Table 17:** Percentage distribution of children who satisfying the basic education criteria by gender, village and the number of schools in the villages in 1995.

Abstract

In 1995, three year after the baseline survey and initiation of the BRAC-ICDDR'B Joint Research Project in Matlab, a follow up survey was carried out to explore changes in the areas of education. These included enrolment, literacy and basic competency of children. A total of 1703 children took part in the test in 1995. Of these 315 were from BRAC households, 670 from eligible non-members and the other 718 from non-eligible households. The children selected were between 11 to 15 years irrespective of whether they enrolled in the school or not. The results showed improvement in each of the above areas since 1992. Literacy as measured through verbal reporting, increased from 34.4 % to 43.8% and was more noticeable among from BRAC organised households (p<.05). Enrolment of children has increased significantly more in case of girls and the lesser poor. The BRAC schools set up in the area in this time played an important role in these changes. This is true particularly for girls who constitute about 70% of BRAC school's enrolment.

The percentage of children qualifying for basic competency increased from 18% in 1992 to 26% in 1995. The rate of increase was almost equal for boys and girls but was higher for the 'less poor' than the poorest children. Children belonging to the BRAC schools performed much better than those in the government primary schools. The improvement was minimal in villages where there was no school at all.

Introduction

Bangladesh inherited a colonial education system. Unlike many other developing countries which made impressive progress in improving their education system and literacy of their population. The scenario of Bangladesh has not been very encouraging. The average literacy rate is still around 40% with women lagging far behind by about 20%. The enrolment rate particularly of girls, has recently increased but the drop out rate has remained ver high. About 60% dropout before completing the primary cycle.

BRAC is a large indigenous non-governmental development organisation in Bangladesh working with the aim of alleviating poverty and empowering the poor. Targeting primarily women from poor families, BRAC's programmes include credit based income generating interventions along with institution building, education, health and family planning.

In 1992 BRAC extended its integrated rural development programme in Matlab. Matlab is a sub-district of the country where the international centre for Diarrhoeal Disease Research, Bangladesh has been maintaining a population laboratory' since the 1960s. Since its inception, BRAC introduced all its programme components to over 100 villages of Matlab in successive steps. At present, there are over 6,000 members in BRAC organised village organisations, all of whom are women. They have received skills and human development training and have been given small loans to initiate income generating activities. An important programme of BRAC is non-formal primary education (NFPE). Recently NFPE was renamed BRAC Education Programme (BEP). Over 120 such schools have been set up to cater for the basic educational needs of children, particularly for poor families who cannot afford to send their children to school

or, if enrolled, drop out within a few years. BRAC and ICDDR,B decided to launch a joint research project by which the impact of BRAC's intervention on human well-being could be measured. This paper examines the effects of BRAC's programme on enrolment rate, literacy and basic competencies of children in comparison with the baseline data (1992) and the follow-up seasonal surveys (1995) done on a sub-set of baseline households.

Objectives

The test was done to explore the effects of BRAC's education (BEP) programme on children in the period between 1992 and 1995 with respect to literacy and basic competency. More specifically, it attempted: to explore the differences of enrolment, basic competence and literacy levels over time;

- to explore the difference in enrolment and literacy rates over time;
- to examine the current enrolment and literacy rates of children in different studied areas;
- to assess the effect of BRAC's education programme on enrolment and literacy rate of children;
- to compare basic competency of children over time in terms BRAC's eligibility and the type of school;
- to examine any gender differences, among children in terms of test performance.

Methodology

Fourteen villages were randomly chosen from 60 villages in the baseline survey of 1992. A seasonal survey was carried out simultaneously in 1995. Four cell designs were considered during the time of village selection a) BRAC b) BRAC-ICDDR,B c) ICDDR,B and d) Comparison. The four cells designed were considered primarily to compare children 's performance. A total of 3,660 households were included in the socioeconomic survey and distributed evenly across the four cells. Children who took part in the test were selected from similar households. Four investigators were appointed to conduct the test and were trained adequately by an education researcher at the head office. The test was conducted in the homes of the children.

Characteristics of the Children

Table 1 shows that a total of 1703 children took part in the test in 1995. Of these 315 were from BRAC households and 670 from eligible non-member households. The other 718 were from non- eligible households. The selected children were between 11 and 15 years irrespective of whether they were enrolled in the school or not.

Table 1: Distribution of test participants by age, gender and BRAC membership status of the households in 1995.

A.ge group	BRAC households (%)		BRAC eligible non- member HHs (%)		Non cligible HHs(%)		All Hous	ehold(%)
	Boy	Girl	Boy	Girl	Boy	Girl_	Boy	Girl
11-12	44.2	51.3	53.9	49.1	47.5	41.2	49.3	46.3
13-15	55.8	48.7	46.1	50.9	52.5	58.8	50.7	55.7
All (n)	163	152	330	340	381	337	874	829

Specification of the test

The Assessment of Basic Competence test (ABC) examines the child's ability to read write a short simple statement on everyday life, work out everyday arithmetic and discover their knowledge and attitude on selected life skills (knowledge necessary for individuals to improve the quality of life). In order to measure these variables the test items were developed from the four areas of the curriculum: (a) life skills (b) reading skills (C) writing skills and (d) numeracy skills. The basic competence and literacy criteria is determined by the following definition used since the inception of this test in 1992.

Defining a minimum level and scoring to satisfy basic competencies and literacy criteria.

- a) correctly answering at least seven of the ten life skill questions.
- b) correctly answering at least three of the four questions on reading comprehension (reading skill).
- c) correctly communicating a message by writing a letter (writing skill)
- d) correctly answering at least three of the four questions from the mental arithmetic (numeracy skill).

Children are considered literate if they correctly answer most of the items in each of the three domains i.e. reading, writing and numeracy skills according to the above definitions. More precisely, children need to fulfil all the criteria in b, c and d. On the other hand, children are considered to be a basic competence educated if they able to correctly answer all the four skills i.e. fulfil criteria a, b, c and d altogether.

Quality control

The test was conducted under the supervision of an experienced well trained field supervisor and field team leader. Field supervisor checked the daily test paper in the field and office. If the supervisor found any problems in the test items they re-interviewed accordingly whenever necessary.

Test paper scoring, analysis and data entry procedures

The marking scheme was finalised before the administration of the test. A total of 46 items were given for the test and 1 to 4 marks were allocated for each correct answer. Some items were marked during the interview, as they were pre-coded. The others were marked after administration of the test according to the marking scheme. FoxPro a database package was used for data entry and spss PC+ a statistical software package was used for data analysis.

Validation of the test

The test materials were designed according to the primary education curriculum. International and national education researchers contributed extensively to the development of these test materials. Several pilot tests were conducted to fine tune the test items before the final administration of the test. The test result was consistent with other tests conducted by BRAC's research division previously (Nath et al. 1994 & Mohshin et al, 1993).

Reliability of the test

Coefficient Alpha method was used to measure the internal reliability coefficient of this test. Reliability found to be 9002 (Cronbach Alpha) which indicating a high reliability of the test.

Results

The literacy rate of the studied villages analysed with the help of demographic information from the socio-economic survey. Table 2 represents the literacy rate of population of 6+ years the studied villages as reported by respondents. There is a rise between 1992 and 1995. The increase is more pronounced among members of poorer households (BRAC eligible), particularly among girls in these households. For all BRAC non-eligible households, it rose 63.2% to 65.9%. We also looked for the reason for this increase. In other words we tried to determine whether the new literates came from households which already had at least one literate member.

Table 2: Percentage distribution of the 6+ years population of 14 studied villages by gender, literacy and membership eligibility in 1992 and in 1995.

Gender	BRAC eligible		BRAC no	BRAC non eligible		II
	1992	1995	1992	1995	1992	1995
Male	(41.4)	(44.9)	(71.4)	(73.1)	(54.0)	(58.7)
	1415	1856	1784	2864	3199	4702
Female	(27.4)	(32.5)	(55.2)	(58.9)	(3903)	(45.4)
	921	1381	1399	2400	2320	3776

Table 3 shows that over the three year period the literacy rate increased markedly. This increase happened across poor and non poor families. In 1992 it was reported that more than 26% of households were illiterate (without any literate family member); although in the follow-up survey of 1995 it had declined to 16%. However, it also shows that some of the new literates came from households, which had no literate member in 1992.

Table 3: Percentage distribution of households by literacy status of household in 1992 and 1995.

Literacy of households	1992	1995
Illiterate (HHS)	(26.5) 692 ⁻	(16.1) 598
Literate (HHs)*	(73.5) 1918	(83.9) 3123

(Figures in parenthesis indicate percentage of households)

* At leas one member in the household is literate

Table 4 gives the enrolment status of boys and girls aged 11-15 years in 1992 and 1995. It shows that the rate of enrolment has increased for both boys and girls but is more pronounced for girls. Overall enrolment was increased from 77.2% in 1992 to 89.4% in 1995. The decrease in non-enrolment showed similar trend as dose the dropout rate. It also shows that dropout and non-enrolment rate of girls was less than boys.

Table 4: Percentage distribution of children (1-15 years) and their enrolment status in 1992 and 1995.

Enrolment status	1992			1995		
	Boy	Girl	All	Boy	Girl	.All
Currently enrolled	77.0	77.4	77.2	87.2	91.7	89.4
Drop out	9.4	8.2	8.8	7.8	4.2	6.0
Never enrolled	13.6	14.4	14.0	5.0	4.1	4.6

Table 5 presents the enrolment status according to mode of intervention. It shows that the enrolment rate of children was highest (91.0)% per cent in the BRAC-ICDDR'B area followed by 90.9% in the BRAC area. The rate of enrolment was the lowest in the ICDDR,B area compared to the other three areas.

Table 5: Distribution of children by enrolment and intervention cell in 1992 and 1995.

Enrolment status	Only 1 1992	BRAC 1995	BRAC- ICDDR 1992		Only ICDDI 1992	R,B 1995	Comp 1992	arison 1995
Currently enrolled	84.3	90.9	75.2	91.0	77.7	85.6	71.1	89.7
Significance	p<	0.05	p<	<0.01	p<	0.05		0.01
Never enrolled	9.9	3.5	13.9	3.0	18.1	4.3_	16.7	7.4
Drop out	5.8	5.7	10.9	6.0	4.5	10.1	18.1	2.9
All (n)	121	460	137	398	283	397	310	448

Table 6 shows the enrolment rate for children aged 6-15 years. Enrolment status is given separately for the age group 6-7, 8-10 and 11-15 years. The increase in the middle age group (8-10 years) was more dramatic, as enrolment increased from 71% in 1992 to 90% in 1995, with the girls having a steeper rise than boys. Most of the BRAC schools are for children of this age group.

Table 6: Percentage distribution of children 6-15 years from BRAC eligible households according to the membership status of their mothers in 1992 and 1995.

Age groups	1992	1992 1995	
	BRAC eligible	BRAC HHs children	Eligible non BRAC . HHs children
6-7	(24.2)	(62.6)	(59.4)
(Govt. entry level age)	133	112	294
8-10	(58.2)	(88.9)	(89.4)
(NFPE entry level age)	392	200	650
6-10	(43.1)	(77.2)	(77.3)
(Govt. primary level age)	525	312	944
11-15	(59.0)	(84.2)	(80.4)
(KK adolescents age range)	576	246	798

(Figures in parenthesis indicate percentage of households)

Table 7 shows that the enrolment pattern of children has changed the different school set-ups in the area following the baseline survey of 1992. It was observed that enrolment in government primary schools has decreased front 81% in 1992 to 60% in 1995. This happened owing to the set-up of different new schools in the area. Data presented here show that 8% of children were enrolled in BRAC schools and more than 9% in non-government primary schools.

Table 7: Enrolment of (11-15) years old boys and girls by type of school in 1992 and 1995.

Type of		1992				
school	Boy	Girl	All	Boy	Girl	All
Govt.	(81.2)	(81.8)	(81.8)	(61.0)	(59.0)	(59.9)
Primary	268	259	527	506	469	794
Non govt.	-	-	-	(9.4)	(8.8)	(9.1)
primary				78	70	148
BRAC	-	-	-	(5.5)	(10.3)	(7.9)
				46	82	128
Madrasha	(4.8)	(4.1)	(4.5)	(3.5)	(0.9)	(2.2)
	16	13	29	29	7	36
Secondary	(13.0)	(13.4)	(13.2)	(20.6)	(21.0)	(20.8)
	43	42	85	171	167	338
All(n)	(100)	(100)	(100)	(100)	(100)	(100)
	330	314	644	830	795	1625

(Figures in parenthesis indicate percentage of households)

The enrolment of 11 to 15 year old children was analysed separately for each of the 14 villages. This league table indicates that enrolment has increased across all the villages irrespective of programme or non-programme area. However, it was more pronounced in the programme area (Appendix 1)

Quality of learning

The quality of learning was judged as mentioned in an earlier section, by administering the Assessment of Basic Competency (ABC) test. Table 8 presents the basic competence of boys and girls separately. Since 1992, the rate of basic competence has increased for boys and girls. The performance of boys was somewhat better than girls, the corresponding percentages were 29.5% for boys and 23.2% for girls respectively. However, it can be said that the quality of learning is not satisfactory as majority of the children failed to satisfy the basic competency criteria. The proportion of children satisfying the four basic criteria of basic competencies (Reading ,writing ,Numeracy and Life skills), increased from 17.8% to 26.4%, a rise of nearly 50%, the rise was less faster for girls than boys.

Table 8: Percentage distribution of children satisfying the basic education criteria by gender in 1992 and 1995.

Gender	1992	1995	Increased %
Boy	19.6	29.5	50.5
Girl	15.8	23.2	46.8
All	17.8	26.4	48.3

(Note: Increased percentages were calculated by the difference between 1992 and 1995's percentages divided by 1992's percentage and then multiplied by 100)

Table 9 and 10 give the basic competency of children according to gender, intervention cells and BRAC eligibility as found in 1992 and in 1995. When analysed separately, the BRAC non-eligible group improved much faster than the BRAC eligible group (56.2% vs 34.7%). However within the BRAC eligible group, the rate of improvement for girls was

55% compared to 24.% for boys. Interestingly this was reversed in case of the BRAC non-eligible group where then rate of improvement was higher among boys than girls.

Table 9: Percentage distribution of children satisfying the basic education criteria by gender and BRAC membership eligibility in 1992 and 1995.

Gender	BRAC eligible			BRAC non eligible		
	1992	1995	%	1992	1995	%
			increased			increased
Boy	14.9	18.5	24.2	25.7	41.5	61.5
Girl	9.6	14.9	55.2	22.3	33.0	48.0
All	12.4	16.7	34.7	24.0	37.5	56.2

Table 10 gives information of improvements in the ABC score for different intervention cell, separates for BRAC eligible and non-eligible. Improvement happened in all cells, with a minimum of 3% happening in only BRAC cell to 68% in BRAC -ICDDR,B cell. Some of the improvement in other cells ranged from 70% to 92%.

Table 10: Percentage distribution of children satisfying the basic education criteria by BRAC membership eligibility and different intervention cell in 1992 and 1995.

Interventio	BRAC eligible BRAC non eligible All				RAC eligible BRAC non eligible			BRAC eligible BRAC non eligible All				
n cells	1992	1995	%	1992	1995	%	1992	1995	%			
			Increased			increased			increased			
Only BRAC	16.7	23.3	39.5	34.3	30.4	-11.4	26.4	27.2	3.0			
BRAC- ICDDR,B	17.8	23.3	30.9	26.4	50.8	92.4	21.4	35.9	67.7			
Only ICDDR,B	12.9	12.3	-4.6	20.9	35.6	70.3	16.8	24.2	44.0			
Comparison	8.1	9.8	21.0	19.8	35.6	79.8	13.0	19.2	47.7			
All	12.4	16.7	34.7	24.0	37.5	56.2	17.6	26.4	50.0			

Table 11 shows the change in ABC rates between 1992 and 1995 for boys and girls according to the last school attended. As there was no BRAC school in Matlab in 1992, no rate appears that columns. In 1995 BRAC primary school children appeared to do best

with exception of those in the secondary schools; 47.8% of boys and 43.9% of girls attending BRAC schools passed the test. Boys attending the Madrashas also performed somewhat better. However, children coming through the other primary systems government and non-government alike, performed poorly.

Table 11: percentage distribution of children satisfying the basic education criteria by sex and type of school in 1992 and 1995.

Type of school	19	92	19	95
	Boy	Girl	Boy	Girl
Govt. primary	(16.2)	(9.7)	(16.2)	(12.4)
school	43	25	82	58
Non govt.	-	-	(17.9)	(11.4)
primary school			14	8
BRAC school	-	-	(47.8)	(43.9)
			22	36
Madrasha	(31.3)	(30.8)	(34.5)	(14.3)
	25	4	10	1
Secondary	(58.1)	(69.0)	(76.0)	(53.3)
school	25	29	130	89
All	(19.6)	(15.8)	(29.5)	(23.2)
	75	58	258	192

Table 12 gives the same information as table 11 but the changes in the 3R's competencies (deduct the life skills) the trend is very similar to the above. Literacy rate of boys increased from 24.6% in 1992 to 46.1% in 1995. A similar trend was found for girls literacy rate as well.

Table 12: Percentage distribution of children satisfying the 3R 's criteria by gender and type of school in 1992 and 1995.

Type of school	19	192	19	95
	Boy	Girl ·	Boy	Girl
Govt. primary	(21.4)	(11.2)	(34.9)	(22.8)
school	57	29	176	107
Non govt.	-	-	(33.3)	(30.0)
primary school			26	21
BRAC school	-	-	(50.0)	(51.2)
			23	42
Madrasha	(37.5)	(30.8)	(58.6)	(71.4)
	6	4	17	5
Secondary	(67.4)	(76.2)	(94.2)	(86.2)
school	29	32	161	144
All	(24.9)	(17.7)	(46.1)	(38.5)
	95	65	403	319

Table 13 shows the percentage of children who passed the different competencies in the ABC test, according to BRAC eligibility. Some additional features of this table may be pointed out. In 1992, there was no BRAC intervention thus data was organised according to whether they were from BRAC eligible households or not. In 1995, BRAC eligible households were divided into two groups; BRAC members and BRAC non-members households. Thus the analysis was done accordingly in the follow-up test. However, the table showed a deterioration of knowledge in the area of life skills over the years across groups. Among the other three competencies, major improvements occurred in writing skills, which was more pronounced for children of BRAC member households. Children from eligible non-member households performed poorly in all four sections.

Table 13: Percentage distribution of children who satisfied the different skill criteria by BRAC membership status and sex in 1992 and 1995

Different skills	В	RAC eligible	Non-eligible			
(1992)	Boy .	Girl	Total	Boy	Girl	Total
Life skill	42.8	48.9	45.7	60.5	53.1	56.6
Reading skill	32.6	25.0	29.0	51.5	42.5	46.8
Writing skill	22.8	14.9	19.1	39.5	27.9	33.5
Numeracy	84.2	64.4	74.9	89.2	68.2	78.3
All	14.9	9.6	12.4	25.7	22.3	24.0

Different skills (1995)	BRAC households (% of children)		BRAC eligible non member HHs (%)			Non eligible households (%)			
	Boy	Girl	All	Boy	Girl	All	Boy	Girl	All
Life skill	39.9	40.8	40.3	22.1	23.5	22.8	48.8	45.1	47.1
Reading skill	49.7	45.4	47.6	32.4	28.2	30.3	64.6	58.5	61.7
Writing skill	51.5	44.7	48.3	38.5	35.9	37.2	71.4	65.9	68.8
Numeracy skill	87.1	69.7	78.7	83.0	60.9	71.8	92.7	83.7	88.4
All	30.7	23.7	27.3	15.5	12.6	14.0	41.2	33.5	37.6

Item analysis

The item analysis shows that the boys performed better than girls in most of the items. Some of the items were difficult to solve for both boys and girls where both performed poorly. For instance, in the reading section the word 'savings' (Bangla word 'shanchay') was the most difficult for the children as shown by the facility values of the word being only 38.6%. In the life skill section, the most difficult one was: what benefits come from child vaccination? In this item only 26.8% children provided the correct answer. The most difficult item of the test was in the writing section. This was the closing sentence of the letter. Only 19.7% could write the closing sentence of the letter correctly. However, considerable progress was made in writing, reading and numeracy sections in terms of learning achievement after the baseline survey. On the other hand, in the life skill section, facility values of most of the items decreased except knowledge on the treatment of diarrhoea and the prevention of night blindness. Facility values of two items increased from 76.2% to 86% and 19.1% to 28.6% respectively in the follow-up test (Table 14).

Table 14: Percentage distribution of children who correctly answered each item by gender in 1995.

Items		1992			1995	
	Boy	Girl	All	Boy	Gir1	All
Life skill	·					
What is a good and easy treatment for diarrhoea?	77.7	74.7	76.2	86.5	85.4	86.0
What food helps prevent night blindness?	20.9	17.7	19.4	29.4	28.2	28.8
How can water be made drinkable?	73.3	71.9	72.6	64.5	60.3	62.5
What water should we drink?	99.2	99.2	99.2	99.0	99.5	99.2
Where should one defecate?	58.4	57.8	58.1	42.6	36.9	39.8
What benefit comes from vaccination for child?	33.8	33.2	33.5	28.3	25.3	26.8
How many brothers & sisters should there be in family?	41.6	52.9	47.1	45.4	49.5	47.4
Do you think like boys, girls should go to schools (Gender issue)	96.6	98.9	97.7	98.7	98.8	98.8
Do you know what prevents poultry and livestock from falling ill?	62.0	58.6	60.3	40.6	46.1	43.3
f someone get a high fever what should one do at first.	67.8	76.6	72.1	40.7	42.6	41.7
Reading skill				<u> </u>		<u> </u>
Mother	73.6	68.1	70.9	85.7	84.4	85.3
Marriage	62.6	54.5	58.6	65.9	62.0	64.0
Pond	64.1	55.0	59.7	72.1	69.5	70.8
Rainy season	53.9	42.2	48.2	59.6	56.1	57.9
Freedom	44.2	32.7	38.6	52.7	48.7	50.8
Joy	57.9	46.0	52.1	65.0	59.3	62.2
Saving	40.1	28.9	34.6	42.0	34.7	38.6
Co-operation	52.1	39.8	46.1	53.2	43.9	48.7
Five trees fell down in the storm.	54.7	42.8	48.9	61.2	56.5	58.9
Let us go to school.	41.6	33.8	37.8	50.3	43.5	47.0
What does Gafur Miah cultivate in his land?	54.7	44.4	49.7	67.3	63.2	65.3
Where does he save money?	53.4	44.4	49.0	61.7	55.5	58.7
How many members are there in his family?	39.5	32.7	36.2	48.2	42.3	45.3
Why small family is happy family?	22.0	16.3	19.2	33.5	27.3	30.5
Writing skill			<u> </u>			
Own Name	75.9	72.2	74.1	86.6	84.4	85.6
Name of own Village where she/he lives	55.5	43.1	49.4	61.9	56.5	59.2
Water	60.5	52.3	56.5	67.4	61.5	64.5
Education	40.3	30.2	35.4	44.4	37.2	40.9
Bangladesh	55.0	45.5	50.3	•59.3	55.7	57.5
Writing a sentence	41.6	33.0	37.4	38.9	37.8	36.7
Salutation	31.7	21.8	26.8	46.6	41.6	44.2
Message	25.2	18.9	22.2	55.3	49.7	52.6
Finish	26.2	20.2	23.2	20.1	19.3	19.7
Numeracy Skill				L		
Counting number (40-50)	92.7	76.3	84.6	91.4	81.3	86.5
Number recognition '3'	89.5	84.7	87.2	94.2	92.2	93.2
Number recognition '49'	58.1	42.0	50.2	64.5	50.1	57.5
Number recognition '500'	72.3	56.1	64.4	77.5	64.5	71.2
Writing number '5'	80.4	78.7	79.6	87.9	87.7	87.8
	57 2	38.4	48.1	57.1	44.5	51.0
Writing number '67'	57.3					
Writing number '67' Writing number '208'	52.6	36.8	44.8	56.3	40.7	48.7
Writing number '67' Writing number '208' Addition	52.6 62.3	36.8 47.7	55.1	66.5	57.1	61.9
Writing number '67' Writing number '208' Addition Subtraction	52.6 62.3 39.0	36.8 47.7 21.0	55.1 30.2	66.5 34.7	57.1 25.6	61.9 30.2
Writing number '67' Writing number '208' Addition Subtraction Mental Addition	52.6 62.3 39.0 94.8	36.8 47.7 21.0 80.7	55.1 30.2 87.9	66.5 34.7 95.8	57.1 25.6 87.1	61.9 30.2 91.5
Writing number '67' Writing number '208' Addition Subtraction	52.6 62.3 39.0	36.8 47.7 21.0	55.1 30.2	66.5 34.7	57.1 25.6	61.9 30.2

Analysis of four selected villages included in both 1992 and 1995 surveys

Four villages were analysed separately as these villages were included in both the 1992 and 1995 tests. Table 15 shows that the enrolment rate of the four selected villages has increased markedly. It has increased from 81% in 1992 to 91.0% (p<.01) in 1995 for boys and from 83% to 97% (p<.001) for girls. The enrolment rate of girls has increased significantly compared to boys. One interesting feature is that in 1995 no girl was not enrolled in the school and the dropout rate was 5.5% for boys compared to 2.4% of girls.

Table 15: Percentage distribution of (11-15) years old children of the four selected villages by gender and enrolment status in 1992 and 1995

Enrolment status	В	oy	Girl		
	1992	1995	1992	1995	
Currently enrolled	81.3	91.4*	83.0	97.6**	
Never enrolled	9.4	3.1	10.2	-	
Dropout	9.4	5.5	6.8	2.4	
All (n)	96	128	88	128	

(* p<.01, ** P<.001)

Table 16 gives the basic competence rates for children of the four selected villages. The trend is similar to table 11 and shows that the rate of basic competence of BRAC household children increased from 17% in 1992 to a little over 23% in 1995. The increase was 36% for children in the BRAC eligible household and 60% among the non-eligible household children.

Table 16: Percentage distribution of children in four villages satisfying the basic education criteria in 1992 and 1995.

Year	BRAC eligible	Non- BRAC
1992	17.0	22.9
1995	23.1	36.7
% increased *	35.9	60.3

^{(*} Difference between 1992 and 1995 divided by 1992,s per cent and then multiplied by 100).

Finally, Table 17 gives the basic competence league table of children and number of schools in the studied villages. It shows that the rate of basic competence of children was poor where there were no schools at all. Therefore, it can be mentioned that the schools have a positive effect on improving the basic competence and literacy of children.

Table 17: Percentage distribution of children who satisfying the basic competence criteria by gender, village and number of schools in the villages.

Name of village	Type of schools			BRAC HHs	BRAC eligible non member HHs	Non eligible HHs	
BRAC	Govt.	Register	BRAC	Seconda	Boy Girl	Boy Girl	Boy Girl
village	primary	ed	/	ry			
		primary	NGOs				
Uddamdi	1	1('93)	2('92)	-	39.0 31.4	14.3 40.0	47.1 24.0
Nilokhi	-	-	-	-			27.3 36.4
Char Nilokhi	-	1	-	-	28.6 8.3	25.0 -	40.0 25.0
Fate pur	1	-	2('92)	1	38.5 25.0	9.5 4.2	25.4 33.3
Enayetnagar	1	-	1('96)	1('93)	30.8 2.2	50.0 -	- -
BRAC-							
ICDDR,B							
Dakirgaon	1	-	1('92)			25.0 37.5	70.8 58.8
Shahabajkandi	1	1	2('92)		27.3 28.0	35.0 24.0	44.4 37.2
Munsabdi			_		34.3 -	33.3 -	
Sanaterkandi	-	1('94)	-		- 16.7	25.0 33.3	
Shilmondi	-		1('94)		28.6 -	20.0 14.3	64.3 50.0
ICDDR,B							
Narayonpur	1			1		20.4 11.9	52.8 26.7
Machuakhal	_	2	_			9.1 7.0	33.3 31.0
Comparison							
Sarderkandi	2		-			10.2 5.0	27.9 35.7
Sarkerpara	1					27.3 36.4	59.1 35.3
All	9	6	10	3	30.7 23.7	15.5 12.7	41.2 33.5

Discussion and Conclusion

The findings of this study show that overall literacy and basic competence of children has increased over time. However, the performance of children in BRAC schools was found to be better compared to their peers in formal primary schools. It can be said that BRAC's education and other development programmes have had a positive impact on literacy and on basic competence of children. The data shows that the target of improving primary school enrolment rates in this area was well achieved. It stands currently at nearly 90%. As BRAC's education programme specifically encourages girls education their enrolment rate has consequently increased significantly in the programme area. Although, the overall enrolment rate improved significantly the quality of education is still far below expectation. The standard of education cannot be measured merely by enrolment rates. The findings show that three-quarters of the children failed to satisfy the basic competence criteria, which is considered to be an indicator of the quality of education. However, one notable feature of the test is that the performance of children was very poor in areas where neither government, non-government nor any other educational institutions were present. It explicitly shows that the presence of schools is fundamental to providing basic competence skills and literacy. Though the overall academic performance of girls was still lagging behind boys, girls from the poor households still performed somewhat better than girls from non-poor households. To conclude, some recommendations can be made in order to improve the present education system of the country. First of all, it is necessary to focus on school-centred learning for all children. As children cannot spend much time for learning at home owing to work or other reasons. Such an option may reduce their homework so that they can help with the household if necessary. Secondly, the instructional time could be maximised. This is crucial especially for the slow learners. Thirdly, an emphasis should be made on both formative and summative assessment as well as on different achievement tests. An appropriate assessment can contribute to improving the quality of education. The outcomes of the assessment are used for feedback purposes, which enhance the accountability of the service providers and learners. Further, pro-active measures should be taken to lessen the existing gap between girls and boys in learning achievements. Finally, different ethnographic studies could be administered to explore the underlying reasons of low learning achievements.

Appendix 1: % distribution of children 6-10 and 11-15 years in each 14 villages by enrolment status in 1992 and 1995.

Name of village	19	992	1995			
	6-10 years	11-15 years	6-10 years	11-15 years		
Only BRAC	60.1	75.4	82.0	89.2		
Uddamdi	52.6	67.1	79.3	93.3		
Nilokhi	66.0	80.5	86.2	90.0		
Char Nilokhi	44.0	72.9	88.7	88.9		
Fate pur	62.4	73.9	81.2	86.7		
Enayetnagar	60.0	78.3	87.1	85.7		
BRAC+ICDDR,B	45.4	73.8	83.2	87.1		
Dakirgaon	48.8	76.4	86.2	89.9		
Shahabajkandi	37.2	75.5	81.4	93.5		
Munsabdi	62.5	75.4	91.7	79.4		
Sanaterkandi	39.1	63.6	82.8	70.3		
Shilmondi	52.8	70.8	80.0	75.3		
Only ICDDR,B	59.4	69.7	79.4	83.1		
Narayonpur	69.2	72.8	76.4	82.3		
Machuakhal	48.9	66.8	82.3	83.9		
Comparison	37.5	61.9	75.7	86.0		
Sarderkandi	35.0	56.7	74.7	84.4		
Sarkerpara	52.2	85.7	83.1	97.2		
All	50.4	69.8	80.2	86.4		

References

- 1. WCEFA (1990) meeting basic learning needs: a vision for the 1990s, New York, UNICEF.
- 2. Chowdhury. AMR et al, (1992) Assessment of Basic Education of children in Bangladesh, BRAC, Dhaka.
- 3. Alam. M. et al, (1994) Educational achievement in rural Bangladesh level pattern and socio- economic determinants, BIDS, Dhaka, Bangladesh.
- 4. Samir R. Nath et al, (1994) Progress in Basic competency of NFPE and PEOC graduates over time, BRAC, RED, Dhaka.
- 5. Mohoshin et al, (1993) Assessment of Basic Competence in Matlab, Dhaka, Bangladesh.