

Nijera Shikhi

&

Adult Literacy

- Impact on learners after five years
- Effectiveness when operating as an NGO

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Glossary of Acronyms and terms used

Effectiveness	The extent to which a range of outcomes are achieved as a result of an activity
Efficiency	The extent to which particular outputs are achieved as a result of an activity
L&N	Literate and Numerate
NGO	Non-Government Organisation
OR	Oral Rehydration
ORS	Oral Rehydration Saline
REFLECT	Regenerated Freirean Literacy Through Empowering Community Techniques
Shebi	Helper
Tk.	Taka
TLM	Total Literacy Movement

Exchange rates used

\$1 = Tk. 44 July / August 1997
\$1 = Tk. 54 November / December 2000

Executive summary

This report looks at the efficiency and effectiveness of Nijera Shikhi's activities in adult literacy on:

- a) learners five years after the completion of their course in the Tarash area where it operated more as a People's Movement, and
- b) learners about a year after the completing of their course in the Barisal area where it operated more as an NGO.

In examining impact after five years the main findings are:

- *literacy acquisition is sustained after five years.* The results indicate that the same percentage of learners have sustained functional literacy five years after the completion of their course and at roughly the same level.
- *A sustained impact on livelihood.* The learners have continued the entrepreneurial activities, which they started during their course with a sustained and beneficial impact on their livelihood.
- *A lasting impact on health practices and nutrition.* The improved health and nutrition practices have also been sustained with a lasting impact on health status.
- *Increased savings and investment.* Many learners commented that they had learnt about the concept of saving through Nijera Shikhi and either had saved or were saving to buy a capital asset. This helps to overcome the vicious cycle of low income leading to low savings, low investment, low productivity and so back to low income.
- *A positive impact on the effectiveness of primary education.* Adults who become literate help their children and younger siblings with school work and encourage them to attend school. This is likely to have a positive impact on children from families whose parents were previously illiterate.
- *Numeracy is used most.* Of the skills of reading writing and numeracy, it is numeracy which is used most as neo-literates keep accounts of their income and expenditure.
- *Primary school books are a valuable resource of reading material for adults.* In many villages where there is little reading material available it is primary school books, which are one of the main sources of reading materials to help people to maintain their literacy skills.
- *Additional classes are run.* In two of the villages visited the Shebi had run an extra class a year or two after the original one by re-using the first class' learning materials. Therefore, when operating as a People's Movement, Nijera Shikhi may have enabled more people to become literate than are recorded in its monitoring systems.

In examining the efficiency and effectiveness of Nijera Shikhi as it operates more as an NGO as compared to its operation as a People's Movement. The main findings are:

- *Reduced efficiency.* Estimated efficiency is reduced from 73% to 41% of those attaining and retaining the UNESCO definition of *functional literacy* as measured by the test instrument developed for this research. This still compares favourably to 13% estimate made by Abadzi (1994)
- *Literacy still attained.* Most of those attending the course probably still attain a level of literacy in excess of the UNESCO definition of *literacy*.
- *Higher levels of functional numeracy retained.* The level of functional numeracy attained only fell slightly from 90% to 82% as measured by the test instrument. This may be an indication of the importance of numeracy to poor people who are also illiterate. Nijera Shikhi's curriculum reflects this.
- *A significant, but reduced, impact on livelihood.* While there was still a significant impact on livelihood due to neo-literates engaging in entrepreneurial activities this did appeared to be less significant than for Nijera Shikhi operations as a People's Movement in the Tarash area.
- *Significant impact on health and nutrition.* The impact on personal hygiene and cultivating and consuming nutritious food appeared to be at least as great in the Barisal area as in the Tarash area.
- *Significant impact on smaller children.* It is likely that there is also significant impact on smaller children, which will positively affect the effectiveness of primary education.

The following overall conclusions can be drawn:

- *Literacy can have a sustained impact on livelihood.* The acquisition of literacy in adulthood from carefully designed programmes can have a lasting benefit on the lives of poor people who are also illiterate.
- *Numeracy is just as important as literacy.* Once they have completed their course most learners use their numeracy skills a lot more than their literacy skills. This should be factored into the design of literacy courses.

- *Effective post-literacy activities are extremely important.* They play an important part in helping neo-literates to retain literacy and to bring about changes in their lives. It may be that these are also best engaged in as a group activity, which gives people a chance to discuss new ideas.
- *A People's Movement is the better modality.* Where it can be initiated and sustained a People's Movement modality is likely to be more efficient, effective, and cost efficient.

1. Introduction

In the summer of 1997 research was conducted into the efficiency and effectiveness of adult literacy work in Bangladesh. This largely focussed on the work of Nijera Shikhi, a People's Movement, which aimed to eradicate illiteracy from Bangladesh. Nijera Shikhi claimed to be both highly efficient in terms of the percentage of learners starting the course who acquired and retained functional literacy, and highly effective in terms of enabling people to bring about beneficial changes in their lives as they developed their literacy skills. In addition to this Nijera Shikhi, at just \$2 per learner, claimed to be very low cost. In order to examine these claims a simple test was developed for functional¹ literacy with a component each for 'writing', 'reading and understanding', and 'numeracy'. In total 62 learners were tested at least a year after the completion of their courses. Furthermore, a sub-sample of these learners were interviewed to ascertain the changes which they felt had occurred in their lives as a consequence of becoming literate. On the whole, this research verified the claims of Nijera Shikhi. It was estimated that around 73% of those who had started the course had retained functional literacy at least a year after completing the course. In addition, substantial changes were occurring in people's lives, which they believed, were a consequence of becoming literate. These included estimated increases in income of around 84% for a sub-sample of 10 male learners, and 200% for a sub-sample of 17 female learners, as they gained in self-confidence and became more entrepreneurial. Furthermore, they reported improvements in agricultural, health, nutrition and hygiene practices. Three factors were identified as being largely responsible for this.

1. The way Nijera Shikhi harnessed "social energy" in its operations as a People's Movement.
2. Its learning methods of aided self education, and
3. The way in which the post-literacy part of the course enabled people to retain their literacy skills.

Details of this research can be found in Cawthera 1999 and are briefly summarised in section 2 of this report.

At the start of 1998, between the first study and this follow up in 2000, Nijera Shikhi received a large grant to enable it to scale up its operations. At the same time John Hastings, its inspirational founder, unfortunately died. This led to an expansion in the follow up research, which was undertaken in November 2000 and had two main focuses.

1. *The follow up:* to ascertain the proportion of people who had become literate through Nijera Shikhi and had retained their literacy skills *five years* after the completion of their course and to record the lasting impact, which they perceived becoming literate had on their lives.
2. *The expansion:* to examine how efficient and effective Nijera Shikhi continued to be as it changed to operate more as an NGO giving a small "honorarium" to its helpers and organisers compared to its efficiency and effectiveness as a People's Movement where helpers' and organisers' main motivation was one of altruism.

Other evaluations of Nijera Shikhi

It was hoped to compare the findings from the small-scale research undertaken in 1997 and 2000 with other evaluations and reviews of Nijera Shikhi's work completed in 1995, November 1997, January 2000 and June 2000. All four of these contacted only learners who had not yet completed their courses. Therefore, they could not assess the literacy and other attainments of 'graduates', or the immediate benefits that 'graduates' perceived they had gained from the entire course. Still less could they assess the permanence of either the literacy attainments or the impact on livelihoods and living habits. None of the four evaluations used any instrument to assess attainments in literacy and numeracy skills or systematic interviewing to elicit learners' assessments of the benefits they had drawn from their courses. They therefore unfortunately could not guide this research design or support, question, or modify its findings.

¹ The term 'functional' here uses the sense indicated by UNESCO's definition, "*Functionally literate:* someone who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community's development."

2. Background to Nijera Shikhi

The founding of Nijera Shikhi

Nijera Shikhi was founded in 1994 to eradicate illiteracy from Bangladesh. Its founder, John Hastings, an English Methodist Minister with many years experience of living in villages and peri-urban areas in India and Bangladesh, had a good knowledge of the Bangla language. He had previously established several “successful” adult literacy schemes but in his retirement realised that traditional “interventionist” models of development offered little hope of eradicating illiteracy from Bangladesh. He therefore set about devising a low cost method of self-education (Nijera Shikhi means “let’s teach ourselves”) based on a People’s Movement modality. He believed this would be more efficient at enabling people to become literate and more effective at enabling them to bring about changes in their lives. Central to this way of operating was the belief that people and communities have the knowledge and resources to help themselves. He further believed that they do not need interventions from outside, as these tend to foster dependence and the belief that development can only be achieved with the help of paid professionals from different types of development agencies.

During the following years Nijera Shikhi’s ways of operating were developed and refined until, as reported above, it claimed to have highly efficient, effective and cost effective methods, which had reached about one million people.

Research into Nijera Shikhi

The research undertaken in 1997 first took the two UNESCO categories of:

- a) *Literate*: someone "who can with understanding both read and write a short simple statement on his everyday life." and
- b) *Functionally literate*: someone "who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community's development."

A test for functional literacy was then developed based on the work on Ziegahn (1992). This was piloted and then modified. It was subsequently used as an instrument to estimate the percentage of people who had retained functional literacy at least a year after completing their course. An outline of this test together with its English translation appears in appendices 5 and 6. As mentioned above, a total of 62 learners were tested. They came from five groups of learners in the Tarash Thana of the Sirajganj District some 150 kilometres from the capital, Dhaka.

In addition to this, a sub-sample of 26 learners from the Tarash area were interviewed to ascertain the changes which they felt had occurred in their lives as a result of becoming literate. This sub-sample was augmented with 23 learners from the Kalaroa Thana in the Satkhira District, which lies near the border with India some 200 kilometres to the SW of Dhaka and is where the test instrument was piloted. Therefore there was an interview sample of 49 people who had completed their course with Nijera Shikhi.

The findings from this research can be briefly recapitulated as follows:

- An estimated effectiveness rate for retained functional literacy of 73%.
- Improved livelihoods as a result of better productivity / consumption / income which averaged \$33 (200%) for female learners and \$100 (84%) for male learners.
- Improved health and nutrition practices such as drinking clean or boiled water, covering prepared food, using closed latrines and cultivating and eating more nutritious food.
- An avoidance of neo-literates being “flattered” or cheated in trading.
- Improved self-esteem amongst learners and the prestige of being able to sign one’s name rather than having to use a thumbprint.
- A greater awareness of social and human rights and gender issues.
- On average 3.9 additional people (mainly partners, children and siblings) being taught by each neo-literate.
- Children being helped and encouraged in their schoolwork and a greater value being placed on formal education.

Research Personnel and Methods

The research methods used during the research conducted in 1997 were largely replicated for this research. The same test instrument was used so as to give a direct comparison with the previous results. On each visit three staff from Nijera Shikhi's Dhaka office formed the core of the research team. Locally based staff and helpers occasionally supplemented their efforts. I acted as the lead evaluator / researcher. Mr. Samsad, Nijera Shiki's Senior Programme Officer, acted as an interpreter. By undertaking this work he gained an idea of the format for the interviews, the type of questions to be asked and the critical issues in administering the test. As a result, during the second trip to Barisal, the team was soon able to undertake the work themselves with the processes being personally monitored by me myself. After each session of testing the tests were marked and the results were passed to me for computation and analysis. Mr. Samsad also gave me a summary of each interview. Without the need for consecutive translation, these interviews fostered a freer and more relaxed conversation.

One of the problems experienced in the course of this research was that many students had nothing to do whilst waiting for their individual tests in reading and numeracy, and for their individual interviews. Occasionally this meant that someone was not fully tested as they simply went away to continue pressing tasks. Those who stayed would often try to crowd around those being tested or interviewed. The solution which evolved to overcome this problem, was to have activities available for those being tested. During a third evaluation visit, the results of which are not recorded in this report, the team took some games, which those who were waiting were able to play. This proved to be a highly successful solution.

3. Efficiency and effectiveness after five years

Efficiency

Three of the five groups visited in July 1997 were visited again as a part of the research in November 2000 with 22 of the original 62 people in the sample being contacted. Comparisons between attainments for 1997 with those for 2000 were obtained for 19 of these 22 people. As the sample from each of the three villages is small, the scores of their test attainments are combined in Table 1. Table 2 simply lists the attainments of the three people for whom comparisons could not be made. Following these tables there is an analysis of the data and a discussion of its implications. In addition to the tests 15 of the ‘graduates’ were interviewed. This comprised 11 women and 4 men. They were asked to assess the benefits they had obtained from their education with Nijera Shikhi and its impact on their lives. Their views follow the discussion of the tests and appear in the section headed “Effectiveness”.

Table 1: Summary comparisons of test attainments of 19 persons for whom tests are available for July 1997 and November 2000 (ordered by magnitude of gains/declines in test attainments in 2000 as compared with 1997)

Name	Place ***	Approx age Nov. 2000	July 1997 L & N**	July 1997 test score %	Nov. 2000 L & N**	Nov. 2000 test score %	Gain+ Loss -
Yunus Ali	Bin	30	Yes	89	Yes	97	+ 8
Fahima Begum*	Lal	40	Yes	87	Yes	94	+ 7
Latif Mirza	Bin	27	Yes	89	Yes	96	+ 7
Habiba Khatun*	Pen	16	Yes	89	Yes	96	+ 7
Joba Parvin*	Lal	15	No??	90	Yes	97	+ 7
Khadiza tul Kubra*	Pen	15	Yes	93	Yes	100	+ 7
Rashida Khatun*	Pen	11	Yes	87	Yes	94	+ 7
Lipi Parvin*	Pen	20	Yes	91	Yes	97	+ 6
Sabana Khatun*	Lal	20	Yes	94	Yes	96	+ 2
Amina Khatun*	Pen	12	Yes	90	Yes	90	0
Hafiza Khatun*	Lal	18	Yes	97	Yes	93	- 4
Abdul Mannan	Bin	35	Yes	96	Yes	90	- 6
Golenoor Begum*	Pen	40	Yes	87	Yes	80	- 7
Parvula Parvin*	Pen	20	Yes	90	Yes	83	- 7
Md. Abbas Ali	Bin	17	Yes	93	Yes	86	- 7
Md. Sultan	Bin	25	Yes	99	Yes	91	- 8
Marufa Khatun*	Pen	16	Yes	99	Yes	90	- 9
Sazeda Begum*	Lal	40	Yes	87	No	73	- 14
Farida*	Lal	25	No	79	No	64	- 15
<i>Total L&N / Average</i>			<i>17</i>	<i>90.84</i>	<i>17</i>	<i>89.84</i>	<i>-1.00</i>

* denotes female

** L & N denotes “deemed functionally literate and numerate on the basis of attaining a score of at least 17/25 on the “writing” and “reading and understanding” component and 17/20 for the numeracy component of the test.”

*** Lal = Lalumazira, Pen = Penguary, Bin = Binshara

Table 2: Literacy attainments for 3 persons for whom comparisons are not possible

Name	Place	Approx age Nov. 2000	July 1997 L & N	July 1997 test score %	Nov. 2000 L & N	Nov. 2000 test score %
Amina Parvin*	Lal	16	No	74	No test	No test
Shahida Begum*	Pen	25	No test	---	Yes	99
Tahera Begum*	Pen	35	No test	---	Yes	97

Whilst this is only a small sample of data it still gives useful information regarding post-course literacy retention. This is first analysed by looking at overall retention of skills after five years.

Although, the small data sample makes it difficult to analyse the data by different characteristics, this has been attempted. A summary of these findings is then briefly outlined with the details appearing in appendix 1.

1. Overall retention of skills after five years

The test instrument is designed to give a simple indication of functional literacy rather than to assess levels of literacy. Therefore the best indicator of literacy retention is to compare the number who those who were classified as functionally literate in July 1997 with the number classified as functionally literate in November 2000. From Table 1 it can be seen that of the 19 learners who were tested on both occasions there were 17 who were classified as functionally literate on both occasions. *This would indicate that there has been no post-course relapse in literacy skills between the one and half and the five years following the course.*

A second way to examine overall literacy retention is to look at the change in the scores of those tested. While the test was not designed to assess levels of literacy it is still likely that any significant change in literacy levels would be reflected by a change in the test scores. In looking at the mean of the two sets of scores we see that it has declined slightly from 90.84 to 89.84. *This is a decrease of only 1% and would tend to confirm the view that there has been no relapse in skill attainment between the two test dates.* In addition to this, it should be noted that the large fall of 15% in the score of Farida may be due to an eyesight problem. If her score is removed from the analysis then the mean would drop from 91.5% to 91.28% and so strengthening the conclusion that there has been no overall change in skill level during the intervening three and half years. Further details on some of the people tested appear in appendix 2.

If this sample is representative of the population of Nijera Shikhi learners, it suggests that roughly the same percentage of learners who succeed at a functional literacy test of the nature administered will be able to succeed at the same test three and half years later. This observation in turn suggests that adults who have become literate with Nijera Shikhi do not rapidly forget the skills of reading, writing and calculation, even in relatively non-literate environments.

Observation during the test confirms this finding. It was surprising how well people performed in the test and the general ease with which they faced the questions. Without the continuing use of literacy skills it might be expected that these skills would be lost, or at least be very rusty, so that being tested would be a struggle. This was not the case. All of those tested were able to carry out the written part of the test, apart from one older woman who clearly struggled.

2. Analysis by various characteristics

In analysing the data on literacy retention, it is helpful to know if there are any factors which help or hinder retention. Three such factors are considered. The full details of this analysis appears in appendix 1 with only the conclusion included here:

1. *Initial test score:* do those who perform well on the initial test conducted 12–18 months after the completion of their course continue to perform well after five years? Evidence from the analysis of this data suggests that this does not have any influence on longer-term retention.
2. *Age:* do older learners have greater difficulty retaining literacy skills? The data is analysed in four different ways. From two of these there is no evidence to support the hypothesis that age influences retention, a third indicates that it may influence retention while a fourth indicates that older people may lose these skills at a slightly greater rate than young people. However, there are problems with the statistical significance of the data. The most important conclusion is that regardless of age, Nijera Shikhi learners are likely to remain functionally literate for at least five years following the completion of their course.
3. *Gender:* is there any difference in retention between male and female learners? Evidence from the analysis of this data suggests that gender does not influence literacy retention.

Effectiveness

One of the main purposes of literacy is to enable people to bring about changes in their lives. Therefore, in assessing the effectiveness of a literacy course it is important to gain some idea of these changes. To do this learners were interviewed to try to discover the changes which they felt had occurred in their lives as a consequence of becoming literate through Nijera Shikhi. Such an approach has limitations. The assessment of the

changes, which occur as a result of becoming literate, is the learners' own subjective assessment and is not independently verified. However, with interviews being conducted in the presence of peers and some village elders who would also tend to know the accuracy of people's claims, it is unlikely that people were deliberately distorting their perceived impact of becoming literate. In addition to this, verification did occur as similar patterns emerged within one village and among several different villages. However, it should be recorded that there was no control group of illiterate villagers pursuing similar livelihoods who did not attend Nijera Shikhi classes.

The data on effectiveness is looked at separately for the three villages visited. Overall data is presented from the interviews for each village with this being illustrated by individual case studies.

Laluamazhira

Started a literacy course for female learners in December 1994. When visited in July 1997 this village was easy to reach. It was surrounded by floodwater and took just 20 minutes to reach by boat. In November 2000 the journey took three hours. An initial rickshaw ride of one and a half hours was followed by a walk of equal time over dried up paddy fields. Therefore, Laluamazhira could be classified as a fairly remote village. We arrived at mid-day and seven of the learners who were previously tested were still in the village and agreed to be tested and interviewed again. Although, with no prior warning of our visit, it was stressed that people did not have much time to spare. Unfortunately, this combined with the occurrence of mid-day prayers, resulted in only four of these being briefly interviewed.

A summary and an analysis of the interviews from Laluamazhira is contained in the following table:

Table 3. Analysis and summary of interviews at Laluamazhira

Name	Approx. Age	Use of R,W,N	Teaching Children	Entrepreneurial Activities	Increases in annual income
Hafeeza	18	Only uses numeracy to keep accounts of trading	Not any more	Has 30 ducks, 30 geese, 2 cows. Sells eggs and poultry. Planted trees which are still growing.	Tk.36,000 (\$ 670)
Fahima	Late 30s	Reads with TLM, teaches her children arithmetic	Yes	Sells eggs and vegetables	Tk. 2,000 (\$37)
Joba	15	Reads and writes with TLM and siblings school books. Keeps accounts	Yes, her siblings	Sells hens and eggs	Tk.1500
Sajeda	Late 30s	Only uses R,W, and N to teach her children	Yes	Sells eggs and hens and grows vegetables	Tk. 4,200 (\$78)

Note: R = Reading, W = Writing, N = Numeracy.

the increases in income are lower at Laluamazhira as its remoteness makes marketing and sales more difficult. This data indicates that learners have been able to bring about changes in their lives as a consequence of participating in the Nijera Shikhi course. The most lasting effect is that people continue with the entrepreneurial activities, which they learnt about and started during their course. These have led to substantial increases in their income. This is highly significant for people who started from a very low base of income and consumption. Furthermore, the fact that these women, who live in a fairly remote village, also engage in these trading activities is an indicator of the increased self-confidence that has resulted from their participation in the course. It should also be noted that

When talking with Sajeda it was mentioned that on the previous visit many of the women reported making a determined effort to get rid of diarrhoea but this had not been mentioned on this visit as a benefit from having attended the classes. Sajeda replied that they had managed to get rid of diarrhoea a long time ago. This had been achieved mainly by covering up food and by ceasing to use open latrines. Everyone in the village had agreed to do this, not just the students in the Nijera Shikhi class, so there had been a benefit to the whole village. Furthermore, the village store sold packets of Oral Saline, an indication that there is a demand for it, and that people are aware of its uses and benefits. This is not always the case in a remote village and indicates that knowledge acquired through adult literacy programmes can have a lasting and beneficial impact on the life of a village.

Two case studies illustrate further the impact that becoming literate through Nijera Shikhi can have on individuals:

Hafeeza Khatun started the Nijera Shikhi literacy course in December 1994 when she was about 12 years old. When interviewed in July 1997 she had become extremely entrepreneurial having bought a goat from which she had bred 10 more and sold these for Tk.3,000 (\$68). She used this money to plant over 100 trees of different sorts. In addition to this she had a flock of 12 geese, which at one stage had numbered over 30. She also had 15 chickens. At the time she attributed this to having attended the Nijera Shikhi classes saying that previously she "did not know anything about saving or poultry husbandry" (see Cawthera 1999: 41).

When visited in November 2000 Hafeeza continued to be entrepreneurial. She had 30 ducks and 30 geese and sold eggs from these. In addition, she owned two of the household's twelve cows. She obtained the finance to buy these through a micro-credit scheme. She estimated that her income from all of these activities is about Tk.2,000 (approx. US\$37) per month. Hafeeza did not read anything on a regular basis. The only writing she did was keeping records and accounts related to her trading activities. The mini-library provided by Nijera Shikhi has not been added to and is no longer in operation.

Sajeda Begum is probably in her late 30's. The only way she uses her reading, writing and numeracy is by teaching her children. She thinks that it was good to participate in the Nijera Shikhi class and that it has benefited her as she sells eggs and earns around Tk.200 (\$4) a month from this and about Tk.150 (\$3) a month from selling hens. She also grows a range of vegetables including cabbage, beans and lau which she did not grow before she joined the class.

General comments

Visiting Lalumazhira in November 2000 was a different experience from the visit made in July 1997. On the first visit the group seemed to be a well organised and functional group – something which was surprising 18 months after the end of the Nijera Shikhi course. On the second visit, five years after the completion of the course, the group has clearly disintegrated. This is not surprising, as a group will not continue as a "post-literacy" group indefinitely. Eventually, it will either transform itself into another kind of group or disintegrate. Clearly the latter has happened at Lalumazhira. There was not enough time to explore why this happened or whether the "Shebi" of "helper" moving to another village was one of the critical factors.

Conclusions

From this small sample of learners the following tentative conclusions can be drawn:

- **The lasting impact** of the course are the activities which people learnt about and adopted during their literacy course. These appear to be in three main area:
 1. **Increased entrepreneurial activities.** The people who started trading in agricultural products during their course have all continued to do so. As a result their income has increased.
 2. **Changed agricultural activities** including better poultry husbandry resulting in larger flocks of birds and growing "kitchen vegetables" such as cabbage and beans not previously grown.
 3. **Changed sanitary and food preparation practices** to overcome the high incidence of diarrhoea. In particular having closed latrines and always covering food. This was a change in practice by everyone in the village, not just the Nijera Shikhi students.
- **Mothers appear to be helping their children with their school work** something which greatly increases the chances of children acquiring literacy and numeracy through schooling and which previously would not have happened.

Penguary

Penguary started a literacy course for female learners in January 1996. It is about a half hours ride from Tarash by rickshaw followed by a ten minute walk. As it is not as remote as Lalumazhira it was possible to agree in advance a time to visit. Thus the interviewing and testing was a more relaxed occasion.

A summary and an analysis of the interviews from Penguary is contained in the following table:

Table 4. Analysis and summary of interviews at Penguinary

Name	Approx Age	Use of R,W,N	Teaching Children	Entrepreneurial Activities	Increases in annual income
Shahida	Late 20s	Writes with her children, keeps family accounts	Helps with writing	Rears and trades hens (10)	
Golenur	Early 30s	Reads material from TLM. No writing, Keeps records of income & expenditure		Has 20 hens and grows vegetables	Can't say
Tahera	Early 30s	Reads her children's books and teaches them writing. Keeps family accounts	Yes	Has 25 hens, cow & calf, sold 5 goats & has 10 left. Has 13 Sishu trees	Goats sold for Tk.3,000 (\$56)
Lipi	Late teens	Reads younger siblings books and writes stories, Keeps accounts of trading	?	Sells eggs	Tk.1500 (\$27)
Rashida	Early teens	Reads books from TLM and others, writes letters, keeps accounts for her father	?		
Marufa	Mid teens	Reads books from market, keeps records for father's shop	?	Has 12 hens, 15 ducks, and 5 cows. Sells eggs and milk	Tk.10,080 (\$186)
Habiba	Mid teens	Reads books from NGO and mini-library, writes letters, Keeps accounts		Has 50 hens and 50 ducks, sells 20 eggs a week. 2 cows but no milk	Tk.3,000 (\$58)
Amina	Early teens	Reads Bangla poetry, attends Madrassa, keeps records			

This data also shows that people are able to bring about significant changes in their lives as a consequence of participating in the Nijera Shikhi course. Again, people are engaging in small entrepreneurial activities centred around poultry husbandry and trading the eggs and birds. Keeping accounts of trading activities is the main direct use of the literacy skills. People also read children's books and have read material about the trafficking of women. Some of the girls have acquired an awareness of this danger. Furthermore, several of the women reported that they are resisting the dowry system. In addition, the women with children utilise their literacy skills to help their children. One woman, Golenur, has used both Ja Chai and Chetana (the TLM primer) and finds Ja Chai to be better.

The stories of three of these women are given to illustrate this with the others being recorded in appendix 3.

Tahera Begum is in her early 30s. She has three children aged 13, 10 and 3. She reads her children's books and teaches them writing. She uses her numeracy skills to keep records of family income and expenditure. She believes that attending the Nijera Shikhi classes has been good for her. She now has 25 hens, a cow and a calf. She also has 10 goats, having already sold five of these for Tk3,000 (aprox. \$53). She also planted 18 sishu trees, five of these have died but 13 are still alright.

Marufa Khatun is in her mid teens. She reads stories from books which she buys in the market and has read three books this year. She also reads her brothers' and sisters' books. She uses her numeracy to keep records of her father's shop in the market. Her father can do this himself but she does it to help him. She rears 12 hens, 15 ducks and 5 cows. Before attending the class she did not have any of these. She sells eggs from the poultry and milk from the cow and makes about Tk.840 (\$15.5) per month from this. The milk makes Tk.720 (\$13.3 - 2Kg per day at Tk.12 per Kg), and Tk.120 (\$2.2) from 40 eggs. This is equal to a total of \$180 per year.

Habiba Khatun is in her mid teens. She still reads some of the books she got from the mini-library and others she has obtained from a local NGO. She writes about the books she reads and writes letters to other members of her family e.g. her grandfather and her friends. She uses arithmetic to keep the family accounts of eggs sold etc.

Habiba feels that it was good to do the Nijera Shikhi course as her knowledge has increased and she is able to analyse social problems and see the solution to them e.g. women's problems and gender issues, the torture of women and issues related to dowry. Like several other women in the group, she now insists on fighting against the dowry system. She has about 50 hens and 50 ducks and sells about 20 eggs a week. She has 2 cows but does not get milk from them.

General comments

The *Shebi* for this group is **Hamida Begum**. Her dedication to the work is probably one of the factors, which has made the group successful and enabled all of its members to attain and retain functional literacy. Since helping the first group, which started in January 1995 and finished a year later. She now takes a second class which finished the course 14 months prior to the second visit. She did this by re-using the books from the first course. The 20 or so additional people who have become literate in this way will not have been recorded in Nijera Shikhi's statistics. Hamida pointed out that she has not received any remuneration for this work and feels that she should have. There is a paradox here. Once remuneration is given, people may be less likely to undertake the work voluntarily. In such a situation the second group of people might not have had the chance to become literate as the Shebi may not have done the work without being paid.

Conclusions

- The members of the group have tended to **continue with the entrepreneurial activities** they embarked on during their literacy course. These are mainly in the area of poultry rearing and trading eggs and makes a small but very significant differences to their income and quality of life.
- Of the technical skills related to literacy that are learnt during the course it appears that **numeracy is subsequently used most**: – its use is mainly for keeping records of household income and expenditure.
- Neo-literates also use their literacy skills **to help smaller children and siblings with their school work**. This will also help children to attain literacy in school.

Binshara

Binshara initiated a literacy course for male learners in January 1995. It is also about a half hour ride from Tarash by rickshaw followed by a ten minute walk. Testing was arranged for a Friday (rest day) evening. As a consequence it was only possible to meet with five of the group as members had business, which had taken them away for the weekend. When the group was visited in July '97 fourteen members were tested. The Organiser responsible for several groups, who lives in the village, gave us an outline of the current status of those members who were absent. This is recorded in table 7 below. The testing and interviews were conducted at night using the light of kerosene flames – a common source of illumination in Bangladeshi villages. (I used this as my main source of illumination for over an hour as I made notes on interviews with Nijera Shikhi participants and found it to be a pleasant light to work from.) It is also interesting to note that although Nijera Shikhi phased out its programme a few years before the second visit, relatives of former Nijera Shikhi students had also been operating Nijera Shikhi classes on their own initiative.

The information from the learners who were interviewed can be summarised as follows:

Table 5. Analysis and summary of interviews at Binshara

Name	Use of literacy skills	Effect of skills on livelihood	Monthly Income July 97 Tk.	Monthly Income Nov 00 Tk.
Yunus Ali	Writes letters, keeps accounts, teaches children	Has a floating shop. As he is can now keep records he is able to keep track of to whom he has sold goods on credit.	400	3,000
Abdul Latif	Reads siblings school books, writes letters, songs and a diary, tracks wages	Is a day labourer. Can keep a better track of his wages and check that he is paid correctly. Is saving to buy a shop	900	1500
Sultan	Reads "World Dairy"	Farmer / labourer	500	1200
Abdul Mannam	Writes letters, keeps business records and accounts, teaches his children.	Runs his timber business better as he is now able to keep his own accounts properly.	450	990
Abbas Ali		Not interviewed	650	700
Average			580	1470

The increase in average income over this period of three and half years is about 150%. This is in addition to the increase of 84% in average income, which the research conducted in July 1997, revealed that male learners felt had occurred to the period of 18 months after the completion of their course. However, this figure should be treated with caution, as it would be inappropriate to draw any firm conclusion from such a small sample and without some verification of the figures. With this caution it should also be noted that this data can be used as an indicator that the acquisition of literacy through appropriate schemes can have a sustained and beneficial impact on the livelihoods of some of the poorer members of communities.

The stories of three of the learners are given below while the other is recorded in appendix 3.

Md. Yunus Ali is about 30 years old with two children. He does not do any reading but does write letters. The last one he wrote was a year ago. He also teaches his children who are in primary school. Yunus uses numeracy to keep accounts for his “ferry” shop (a floating shop), which sells cosmetics. He has traded through the shop for nine years. He feels that learning with Nijera Shikhi has benefited him a lot. People often buy things from him on credit. He used to forget the transactions but now he maintains records. Yunus also cultivates fish with a loan he has from Grameen Bank. He says that he could not get this loan if he was illiterate as it is a condition to get a loan from Grameen Bank that you are able to sign your name and be able to read and write. He estimates that his monthly income of Tk.3,000 (US\$53) has increased by Tk.700 (US\$13) as a result of attending the Nijera Shikhi classes.

Abdul Latif (Mirza) is in his late twenties. He reads his brothers’ and sisters’ books as well as books of cinema songs. He reads most weeks and often daily. In addition, he writes songs and writes letters to his brother. He further keeps a daily diary of what happens in his life, his aims and memories. He produced this and was photographed with it. Abdul says he uses numeracy when he gets his wages as a day labourer. He is able to keep better track that he is paid properly and is more aware of how he spends his money. He thinks it is “very, very, very good” that he attended Nijera Shikhi classes. Before he could not read and write – now he gets great pleasure from doing this. His colleagues as day labourers “all love him” because he can help them. Also he can now earn more – but can’t say how much. He is saving and hopes to buy a shop.

Abdul Mannam is in his mid thirties. He does not do any reading but writes letters – the last time was to his nephew 4 days ago. He runs a timber business and writes quite a lot in relation to this work, for instance he engages some labourers and keeps records of attendance, wages etc. He also uses numeracy as he keeps accounts and uses all four arithmetic functions for this. Before Abdul attended the Nijera Shikhi classes he had to have help with records and accounts – now he does this himself. He also feels that his attitude and performance have changed. He estimates that his income has increased by about Tk.45 per day. (Tk.14,000 p.a. = US\$260 p.a.) Abdul has five children and helps them with school work. His wife became literate through the TLM programme but he does not think her literacy level is very high. He feels that Nijera Shikhi takes people to a higher level and that it is a better method. He didn’t use the mini-library.

General comments: views from a Helper and an Organiser

Mr. Khariuzzaman, was the *Shebi* (helper) for a nearby co-ed group. He feels the whole group benefited. They read newspapers, posters at cinema hall etc. He did the work because he wants to reduce illiteracy and feels the village will benefit. He would like to continue Nijera Shikhi work but does not think he would do it again because there is no honorarium. However, he is pleased that he did the class once. He now works as a farmer and used to be a primary school teacher but stopped doing that as it was too poorly paid (Tk 76 / month – now he says the pay would be Tk. 5,000 per month).

Mr Ruhul Amin was the *Organiser* of this and other groups. He reported that the mini-library was used for about three years. Another group was started after the original one and they also used the mini-library. Their use finished about 15 months ago. As in Penguin, the learners in this second group would not appear in Nijera Shikhi statistics. He feels that the best books for these groups were the ones on fish culture, general agriculture and cattle rearing and treatment. The members who attended the class had not attended any previous classes.

Mr Ruhul Amin also teaches on the TLM courses run by the government. He thinks the Nijera Shikhi materials and methods are better than the TLM ones. Students learn to a higher level, learn more vocabulary and learn more quickly through Nijera Shikhi. If he had the choice he would use Nijera Shikhi materials with his classes.

The organiser gave the following information on the others in the group not present.

Table 6. Summary of the position of Binshara members not present.

Name	Information
Abdus Salam	Has gone away for a few weeks to sell his mother's land. Now runs a tea stall. Estimated income of Tk.2,500 (\$46) per month.
Toher Ali	Has started a business after joining Nijera Shikhi – is away selling oil in another district. Estimated income of Tk.2,500 (\$46) per month.
Abbas Ali	Has started a shop in the village market, used to be a day labourer – has gone to visit his sister for the week-end. Estimated income of Tk.3,500 (\$65) per month.
Shajahan Ali	Has bought some land and went away 3 days ago to buy an engine. Estimated income of Tk.5,500 (\$100) per month.
Abdul	Gone to jail – accused of robbery!
Khalilur Rahman	Is now a singer so is travelling around.
Kashem	Can't come as his daughter's wedding is today.
Sultan	Used to be a day labourer – still is but is now a team leader as a result income increased from Tk.50 a day to Tk.70. He has also bought some land. Gone to father in law's house.

The status of this data should be reflected upon. It has not been derived directly from the learners themselves but from another member of the village, with an interest in the group. As such it is an indicator as to how others within a village may perceive the effects of becoming literate. Its accuracy should also be reflected upon. The research team felt it likely that within a village situation people have a fairly accurate idea of other people's activities and income. Therefore, it is reasonable to conclude that this data tends to verify the conclusion that the acquisition of literacy, through appropriate schemes, can enable people to become more entrepreneurial and can have a sustained and beneficial impact on the livelihoods of some of the poorer members of communities.

Conclusions

From the research undertaken with the male group at Binshara the following can be concluded:

- ***There is a sustained and beneficial impact on the livelihoods*** of some of the poorer members of communities. People feel that they have become more entrepreneurial as a result of their course and that their income has consequently increased. From this very small sample interviewed it appears the average income may increase by a further 150% after five years in addition to the average increase of 84% recorded after 18 months.
- ***Keeping accounts*** is the main use that the male learners have for literacy skills. Some write and only a few read.
- The one teacher and the one learner who had encountered both Nijera Shikhi and the Government's TLM programme ***favoured the Nijera Shikhi methods and materials over the TLM methods and materials***. They felt it was quicker to learn from and took people to a higher standard.

Summary of conclusions of efficiency and effectiveness five years after the completion of the course.

From the data gathered from these three groups of students five years after the completion of their course we can tentatively conclude the following about Nijera Shikhi operating as a People's Movement in the Tarash area.

1. ***High retention of literacy:*** those who retained their literacy skills 18 months after the completion of the course have also retained them five years after the completion of the course. There appears to be no relapse between 18 months and five years.
2. ***73% efficiency after 5 years:*** as there appears to be no relapse between 18 months and 5 years it is reasonable to estimate that Nijera Shikhi operating in this modality has enabled 73% of the learners who started the course to attain and retain literacy five years following the completion of their course.
3. ***A sustained and beneficial impact on livelihoods:*** most of those interviewed have continued with the entrepreneurial activities they started during their literacy course. As a consequence their incomes have increased by amounts which are highly significant to people who earn below average incomes in one of the world's poorer countries. Research undertaken in 1997 indicated that, a year to 18 months after the completion of the course, on

average these increases could be in the region of 200% (\$36) for female learners and 84% (\$109) for male learners. It is likely that these gains in income / productivity have continued. Although it was not possible to quantify this with sufficient accuracy, data from the very small sample of male learners indicates that this further increase may average 150%.

4. A lasting impact on agricultural practices and on nutrition: evidence from the female groups indicates that new agricultural practices acquired during the course continue to have an impact on subsequent activities and output. Many of the women now have kitchen gardens and grow a wider variety of fruit and vegetables. They also rear more poultry. Some of this is traded and so raises household income while some is consumed within the household and improves vitamin and protein consumption. This improved nutrition should improve people's health status and productivity.

5. A sustained increase in savings and investment: several of the learners mentioned that they were now saving in order to buy a capital asset. In addition to this many of those engaged in entrepreneurial activities had saved and invested in capital assets in order to generate profit. Many of these people said they only thought of doing this as a result of their learning during the course. Increases in saving and investment are often a critical step in breaking a "vicious cycle of poverty" that runs from low real income to low savings to low investment to low productivity and then back to low real income (Mier 1995: 64).

6. A lasting impact on personal hygiene: evidence from Laluamazhira indicates that learning taking place during the course can have a lasting impact on personal hygiene and the health status of a village. By discovering the importance of covering food, using closed latrines, washing hands, and drinking clean water the incidence of water born diseases can be reduced leading to an improvement in the health status of a village.

7. Numeracy is used most: whilst people do write letters and read a little (usually children's books) their literacy skills are used most for keeping accounts of trading activities and family income and expenditure. This needs to be noted in the design of literacy programmes and materials.

8. A beneficial impact on primary education: mothers use their literacy skills to help their children with school work and in some cases before they attend school, adolescent girls also use their literacy skills to help siblings in a similar way. This can have an immensely beneficial impact on the effectiveness of primary education and makes it more likely that children from previously illiterate families will attain literacy through the formal education system.

9. Additional groups running: in two of the three villages visited the Shebi had run an additional group after the first one had been completed. This had been done without the knowledge of Nijera Shikhi and had re-used the learning materials of a previous group. This could mean that Nijera Shikhi, when operating as a People's Movement has enabled more people to become literate than would be recorded in its monitoring systems.

4. Efficiency and effectiveness as an NGO

Methods of operation.

Nijera Shikhi was first established as a People's Movement and uses a method of 'self education' that [1] gives the learners a feeling of rapid progress with a quick pay-back on their efforts, [2] makes the learners active in their learning, [3] treats them as adults, not children in school [4] builds on the knowledge that people already have, and [5] combines literacy with knowledge and ideas that are useful in improving livelihoods and well being. This is why its helpers are called 'Helpers' or in Bangla 'Shebis' and not 'teachers'. A brief description of the method will illustrate the approach.

One of Nijera Shikhi's principles is that writing comes before reading. During the first lesson through a process of discussion and suggestion students copy characters from familiar objects such as a bank note and a packet of tea and so learn to write a simple letter "KAKA TAKA CHAI" - "UNCLE WE NEED MONEY". By the end of the first lesson the learners are able to write a sentence - in fact a useful letter as well as learning to write five characters. In subsequent lessons more characters are added in a similar way until all fifty letters of the Bangla alphabet, and most of the one hundred and fifty combinations letters, together with the numbers have been learnt.

The first phase takes around three months. At the end of this, learners can write short sentences. Those who pass a test then proceed to phase two, also about three months, during which their vocabulary and arithmetic skills are developed, a savings group is started and learners meet health and agricultural training officers. At the end of this second phase learners are functionally and creatively literate and numerate and are tested to verify this. Thus functional literacy is attained in about six months as compared to nine months on most other schemes. Phase three is the post-literacy phase, which lasts for a further six months, taking the full course to a year.

2. Sustaining literacy through post-literacy activities. One of the presumed major problems of adult literacy schemes is that without supplies of reading material, people can easily relapse into illiteracy once they have completed their course. Nijera Shikhi tackles this problem by providing mini-libraries for every hundred learners. The contents are used during the six months of the post-literacy phase. Each mini-library contains sixty-two books on various development issues together with a variety of stories. The students continue to meet six days a week. Each time they meet one of the neo-literate is chosen to read from a book to the rest of the group. If she or he gets stuck reading any of the words, the rest of the group will help to decode it. If they are all stuck the Shebi will try to help. Neo-literate are also encouraged to discuss the new ideas they are encountering through their reading with each other as well as with their wider circle of friends and family. This method of preventing post-course relapse has the added advantage of getting people into the habit of regular study and discussion so that "post-literacy classes" can easily become "village study and development groups." One of the interesting aspects of Nijera Shikhi as a People's Movement is that some eighteen months after the completion of the post-literacy phase such groups were still continuing to meet each day, with their helper, for study and discussion. This discussion may also be an important aspect of encouraging people to experiment with new activities and so facilitating changes in their lives.

3. The way it operated as a People's Movement. During its early years of operation Nijera Shikhi advertised through the media for people who would like to help eradicate illiteracy from Bangladesh. On average 300 to 500 people per month responded to these adverts by requesting an information pack. This would tell them more about Nijera Shikhi and the options available to them if they wish to join. Most people then *paid* a small membership fee to become organisers. This was in contrast to other schemes where organisers are *paid* an honorarium to undertake this work. They were subsequently sent a manual on how to be an organiser in a People's Movement and usually attend a short course.

Organisers then did two things. They formed a local committee for mass education in their village of ten to twenty villagers and they gathered together one hundred people who wished to become literate. These one hundred people were told about the benefits of becoming literate and what was involved in learning with Nijera Shikhi. They then divided into five groups of twenty. Each group had the task of deciding which of their literate neighbours they would approach to be their Shebi or Helper in becoming literate and numerate. This decision was based on their knowledge of their neighbours' level of education, record of service to the community and whether they were the type of person they would like to learn with. All twenty people then went to that person and asked for their help. One of the consequences of this was that the ownership of the group was as much with the learners as it is with the helper.

The helpers then attended a training course on how to be a Nijera Shikhi helper. This was run by the organiser with the aid of various manuals. Once they were trained the course started - two hours a day, six days a week, for a year.

Nijera Shikhi provided the learning materials such as primers, manuals and a mini-library. It did this from the funds it raised which also cover management and administrative costs. The finance for learners' notebooks, biros, board and chalk as well as kerosene for evening groups was raised locally. The total cost for each learner was about \$2 of which 60c is raised locally. Helpers were not given a wage or honorarium, all they "received" for their work was a certificate after phase two of the course which said "*This person enabled me to become literate and numerate*" it was signed by all of the learners none of whom were previously able to "sign". Thus Nijera Shikhi, by establishing a framework for generosity and altruism, unlocked and used resources, which already exist in communities, and so promotes "development from within".

Nijera Shikhi additionally operated in a similar way in conjunction with Union Councils, which are the lowest tier of local government in Bangladesh. By working in this way with Nijera Shikhi illiteracy could, in theory, be abolished in a union over a five-year period.

A different way of facilitating development.

Nijera Shikhi contends that it fosters "development from within" by unlocking and using the resources that communities already have. It uses "social energy" which can be seen as a 'generative' good as its main resource. This is a different type of good from many others as it is "generative" in nature. With most goods the more you use them the less you have left. With generative goods the more you use them, the more of them you have. Trust,

love, friendship, ideas and wisdom are further examples. Generative goods are some of the most important aspects of living yet are often neglected in development work. By expecting and institutionalising generosity, Nijera Shikhi increases the probability of people acting in an altruistic way. In doing so they generate social energy, with its constituent parts of "ideas", "ideals" and "friendship" and so communities start to use the resources they have to develop themselves.

Changes in Nijera Shikhi

The methods of operation described above depict Nijera Shikhi in its purest and earliest People's Movement modality. In fact Nijera Shikhi has operated in a variety of ways as it has adapted to different circumstances and opportunities. However, from 1998 until the time of this research in November 2000 it has begun to operate more as an NGO. In particular it has started to pay its volunteers a small honorarium for their services. Shebis were paid Tk.400 (\$7.40) at the end of phase one of the course and Tk.500 (\$9.25) at the end of phase two. No honorarium was available for the Shebis for the third phase of post literacy. While these are small amounts, in some areas they may have significantly changed the relationship which Nijera Shikhi's volunteers have with the organisation, while in other areas there is still just as strong an attachment between Nijera Shikhi and its helpers, organisers and co-ordinators. Some possible reasons for this change are looked at toward the end of section 4 of this report.

Studying Nijera Shikhi after its changes

In order to examine the efficiency and effectiveness of Nijera Shikhi as an NGO compared to its operation as a People's Movement the research, which was undertaken in July 1997 with five groups of learners was replicated in November 2000. On this second occasion the Barisal area in the south of Bangladesh was selected. Research conditions were difficult due to heavy rain and the start of Ramadan. These factors combined to restrict the availability of participants for testing and interview. In order to obtain satisfactory data for five groups, it was necessary to visit seven groups with the test data from the two groups with the least number of graduates available for testing, being completely discarded from the results on efficiency. From the five groups included in the data on efficiency 57 people were tested, 49 women and 8 men, a number comparable with the 62 tested in 1997.

It was intended that these groups would have completed their courses at least a year prior to testing. In the event the two groups at Khalna had completed phase two of their course only five months earlier and had not had the benefit of the subsequent post literacy phase. The three groups at Nathoi had completed phase two 30 months earlier. All groups had operated under the new modality with Shebis receiving 'prize money' for the work they undertook.

The data from the testing for functional literacy is as follows:

Table 7. Summary of test results for Nijera Shikhi operating as an NGO in the Barisal area

Place	Khalna 1	Khalna 3	N. Nathoi	Nathoi	S. Nathoi	Total
Gender	F	F	F	F	M	
Months since completion	5	5	30	30	30	
Number starting course	20	20	20	20	20	100
Number finishing course	18	17	20	20	15	90
Number tested	12	11	14	12	8	57
Number functionally literate ¹	6	4	7	6	4	27
Number functionally numerate ²	10	9	10	11	7	47
Functionally literate and numerate ³	5	4	7	6	4	26
% Classified as Lit & Num	42%	36%	50%	50%	50%	46%
Estimated efficiency						41%
Average score as %	77	73	72	78	65	73

Note: 1. 'Functionally literate' indicates a score of at least 17 out of 25 on both of the tests for 'reading, comprehension' and for writing.

2. 'Functionally numerate' indicates a score of at least 17 out of 20 on test for numeracy

3. 'Functionally literate and numerate' being classified above the 'pass' mark for each major component of the test.

As a benchmark for comparison a similar table for the data from the testing of five groups in July 1997 who operated more as a People's Movement is as follows:

Table 8. Summary of test results for Nijera Shikhi operating as a People's Movement in the Tarash area

Place	Binshara	Mohesh.	Penguary	Kundaeel	Laluamazhira	Total
Gender	M	M	F	F	F	
Months since completion	18	18	18	12	18	
Number starting course	20	20	20	20	20	100
Number finishing course	16	16	12	13	18	75
Number tested	14	16	10	7	15	62
Number functionally literate	14	15	10	5	12	56
Number functionally numerate	14	16	10	5	11	56
Functionally literate and numerate	14	15	10	5	10	54
% Classified as Lit & Num	100%	94%	100%	71%	67%	87%
Estimated efficiency						73%
Average score as %	90	91	91	77	88	87

Adjustment for absence & estimated efficiency

With only 57 of the 100 who started the course being tested it is necessary to try to estimate whether those not tested would pass the test or not. In 1997 this was done by assuming that the learners who had dropped out from the course had not attained functional literacy and by taking the opinion of the Shebi as to the literacy skills of the graduates not present in comparison to those tested. In this way a figure of 73% was arrived at for the likely efficiency of Nijera Shikhi operating as a people's movement in the Tarash area.

With the figures from Barisal it is necessary to make a similar adjustment. Of those who completed the course and could not be tested - the reasons for absence from the test were mainly to do with attendance at other activities such as the Grameen Bank and prayers at the Mosque during Ramadan. If we assume that those tested are representative of their fellow learners, then of the 33 who completed the course and were not tested 46% of these would have been classified as functionally literate and numerate, then it is reasonable to estimate the effectiveness of Nijera Shikhi in Barisal as being

$$\begin{array}{r} \mathbf{26} \\ + \\ \text{(number who passed the test)} \end{array} \quad \begin{array}{r} \mathbf{15} \\ = \\ \text{(number of absent completers estimated to have passed i.e. } 33 \times 0.46) \end{array} \quad \mathbf{= 41}$$

Therefore, with 100 starters efficiency can be estimated at 41%.

While this figure of 41% is not as impressive as the 73% estimated in 1997 for Nijera Shikhi as a People's Movement in the Tarash area, it is still a considerable achievement. It compares favourably with Abadzi's estimate of 13% for literacy courses in general (Abadzi 1994) and not too unfavourably to the 60% given for REFLECT in Bangladesh (Archer and Cottingham 1996: 50). A figure, which takes no account of post course relapse, a factor, which is accounted for in the estimates for Nijera Shikhi. Abadzi (1994) estimates that without structured post literacy activities this could be at a rate of 50%.

The following observations can be made about this data.

1. The drop out rate of 10% for operating as an NGO is lower than the 25% recorded for operating as a people's movement. There could be several factors responsible for this, [1] in its recent operation as an NGO there appears to be less emphasis on phase 3, the post-literacy phase of the course, being an integral and essential part of the course. Therefore the course had in effect being reduced from a minimum of 12 months to a minimum of 6 months duration. There is likely to be less drop out during a shorter course. [2] the prize money for the Shebis may have been linked to completion of the course.

2. A lower efficiency rate of 41% is recorded for Nijera Shikhi operating as an NGO in Barisal than the 73% estimated for Nijera Shikhi operating as a people's movement in Tarash. There are several possible reasons for this.

(i). The modality of a people's movement based on altruism and social energy may be more likely to bring about lasting commitment from those involved. This is illustrated by the fact that two of the Shebis in the Tarash area had, with no support from Nijera Shikhi, run an additional course in their village simply because they felt it was a good thing to do and wished to help others. This is in contrast to one of the Shebis in Barisal, who when asked if he would be interested in helping six of the learners in his class who had experienced difficulty attending replied, that this would depend on whether there was any 'incentive' from

Nijera Shikhi to do so. Clearly when someone is paid an honorarium or some ‘prize money’, however small, they become more of a “hired hand” paid to do a job and less a member of a movement with a goal to work towards which they believe in.

(ii) There seems to have been less effective post-literacy work at Barisal. While someone (usually the “Organiser”) has been paid to ensure that each mini-library has operated at Barisal, this may not have ensured its effective operation. The Shebi received their final honorarium at the end of phase two. As a consequence it is likely that less importance has been placed on phase three, the post-literacy phase, with there being little incentive for the Shebi, who previously held the group together, to see that this operates. For the Khalna 1 & 3 groups there was not a mini-library available so the learners had no access to such post-literacy facilities. These two groups also scored lowest out of the five groups tested giving further weight to effective post literacy activities being an important part of adult literacy work. Without such opportunities, holding literacy classes would be akin to teaching people to drive on an island with no roads and nowhere to drive to. However, this research did not undertake a detailed evaluation of this aspect of Nijera Shikhi and it is possible that the impression gained is not accurate. Nijera Shikhi is also planning to put greater emphasis on the post-literacy aspect of its work in future.

(iii) The learners at Barisal may be older. The impression I gained from looking at the groups is that there were more older people in their twenties, and thirties and fewer adolescents than in Tarash. While results from this research show that older people can and do attain and retain functional literacy. Observations would suggest that they do so more slowly and with greater effort. This factor may have slightly distorted the results.

3. The average test score declines from 87% to 73% showing that while there has been a dramatic fall in the numbers classified as functionally literate by this test, there has still been considerable literacy skill acquisition and retention by those who have participated in Nijera Shikhi operating through an NGO modality. A careful examination of the scores of these groups shows that many of those who were not classified as functionally literate scored satisfactory marks on the first two questions of the writing and the reading and understanding parts of the tests but scored poorly on the more difficult third question which involved writing a letter and, from a further letter, read and answer comprehension questions. It would be safe to assert that all but four of those tested had achieved a level of literacy considerably in excess of basic literacy, as defined by UNESCO, but that only around 41% had achieved functional literacy by the UNESCO definition, as measured by the test instrument devised for this research.

4. The level of numeracy achievement at Barisal has not declined as significantly as the level of literacy achievement has declined. While the percentage tested as functionally literate has declined from 87% to 46% between Tarash and Barisal the percentage tested as functionally numerate has only declined from 90% to 82%. Observation suggests that this is because numeracy is used more and has more importance to people than literacy. Evidence for this assertion is derived from the observation that when asked how they used their reading writing and numeracy skills the activity which people mentioned most was “keeping accounts” and “keeping records of income and expenditure”. This was the case both at Barisal (see below) and at Tarash (see section 2 above). Further evidence is recorded in the research undertaken at Tarash in 1997 where learners spoke of some of the benefits of becoming literate as “no longer being able to be “flattered”” (i.e. cheated), “being able to read prices” and “keeping accounts of what people owed them” (see Cawthera 1999).

This has important implications for the design of literacy courses. In education the motivation of the learner is critical to success. This is especially the case with adult learning where students need to feel they are making rapid progress at something that is useful. One of the aspects of Nijera Shikhi, which helps to make it successful, is that it achieves this. In the first lesson students learn to write a useful letter “Uncle I want money” something, which also appeals to illiterates, the vast majority of whom are poor. In lesson five students start to learn numbers and in lesson seven multiplication is introduced. In addition to this several of the learners interviewed also commented that they would now like to read more books on accounts. In contexts where people are poor, and their motivation for learning has to be maintained, it is likely to be important that the numeracy aspect of literacy is carefully factored into courses. In phase two of the Nijera Shikhi course the primer “Nijera Hishab Kori” (Lets do Accounting) is now taught. This includes work on general maths, profit, and loss and weekly and annual accounts.

Effectiveness

In reviewing effectiveness we are trying to gauge the changes which have occurred in people’s lives as a consequence of participating in the Nijera Shikhi classes. To do this some of the learners were interviewed while the reading and numeracy skills of others were being tested. These interviews were conducted on a semi-

structured basis. The main themes explored related to how the learners now used theirs skills of reading, writing and numeracy and how they felt their lives had changed as a consequence of becoming literate, including any changes in income which they felt had occurred as a result of their acquisition of literacy.

Interviews were conducted with learners from seven groups. The five whose test scores have been analysed in the previous section and two other groups, "Khalna 2" and "Shanuhar" whose scores were discarded from the analysis of efficiency. A total of 27 learners were interviewed. The results of these interviews are summarised below. They are presented in three groups: married women, single women usually in their teens, and men. Only one male group was visited.

Summary of results of effects for married women.

A total of 14 married women were interviewed most of whom were also mothers. Their ages varied between early twenties and mid forties. These interviews are summarised as follows:

Table 9. Analysis and summary of interviews of married women in the Barisal area

Name	Use of R,W,N	Teaching children	Main effects
Khalna 1&2 group			
Sufia	Numeracy for tailoring, writes to Father	Sister	Has 1 hen, 4 geese – didn't have these before
Rezia	Reading children's books	Daughter	Covers food, drinks boiled / clean water
Runu & Dolly		Their children	Are learning to understand the whole world! Now cover food, boil water use ORS
Khalna 3 group			
Hasina	Writes to Father and husband		Feeds nutritious food to herself and her son. (eggs meat and veg.)
Nasima	Writes to mother in Dhaka	Son	Income increased by Tk.50–60 (\$1) per month, eats better food, can make decisions
Mary Aktar	Reads primary school books	Daughter	Cultivates guava trees
Shahana	Keeps family accounts, reads occasionally		Can make ORS
Rashida			Uses safe water, cultivates vegetables
Moni			Learnt about clean water and communal harmony, earns Tk.120 / month (\$2.22) from selling eggs and veg.
Sharmin			Now cultivates and sells 3 types of veg. (only 1 type before) income increased from Tk.140 (\$2.6) to Tk.200 (\$4.80) as a result.
Shanuhar, co-ed group			
Maksuda	Keeps accounts	Her 2 children	Now sells 40 eggs a week and vegetables. Income increased from Tk.160 (\$3) to Tk.250 (\$4.60) per week.
North Nathoi			
Shefali Roy	Reads place names	Helps her children	Now saves some money
Nipu Begum			Started to sell a few eggs for Tk. 12 (22c) per week. Now grows veg. for vitamins for her children's health

Note: R = Reading, W = Writing, N = Numeracy.

Eight of those interviewed mentioned that they taught or helped their children with their studies. Besides helping the children to become literate and numerate this will also help the learners to maintain and perhaps develop their own literacy. The other main uses of literacy included writing letters to relatives who live in other places, reading place names when travelling and reading children's storybooks. Several women also reported keeping accounts of family income and expenditure and of their trading activities. Some said they now kept verbal accounts!

The main changes, which these learners felt, had occurred in their lives as a consequence of their participation in the Nijera Shikhi course related to:

- improved **personal hygiene** and health practices,

- growing and feeding **more nutritious food** for themselves and their family,
- **income generating activities** which largely revolve around selling eggs and vegetables.

In addition to this, people had greater self-confidence to start participating in these activities and to make decisions. One woman commented how before attending the class she would never leave home where as now she was happy to do so. Several women reported that they had now started to save with a view to having capital to be able to trade – an idea they had not previously thought of. Other women also commented that they needed access to capital in order to start trading.

The stories of three women illustrate these changes, notes from the interviews with the other women can be found in appendix 4.

Nasima (Khalna 3 group) is in her 30s and has one son and five daughters. Her husband encouraged her to join the Nijera Shikhi group. She uses her literacy skills to write to her mother who works as a staff nurse at a medical college in Dhaka. Her mother can't write but gets others to write for her. She also teaches her son reading and writing. Nasima estimates that her income has increased by about Tk.50-60 (\$1) per month as a result of participating in the class. She now has 5 hens and cultivates several types of vegetables. She does not sell these as she wants to eat the food. She did not do this before joining the group. Now that Nasima has participated in the course she feels that she is more dynamic than before and can now make decisions. She also says that she could raise her income more if she so wished.

Mary Aktar (Khalna 3 group) is married, in her early 20s and has a son aged 2 and a daughter aged 5. She teaches the daughter, although she is not yet attending school, and says that before she joined Nijera Shikhi she "could not even think of teaching another person". She collects books to read from the primary school students, she can't read them all but enjoys some of them. She does not do any writing but can write her name and address and can sign the voter list. She also says that she keeps "verbal records" of the family income and can make O.R. saline. She cultivates some guava trees and intends to plant some other fruit trees to sell the fruit.

Maksuda (Shanuhar group) is in her 20s has two children, one aged 12 who is in grade 3 at school and the other aged 7 who is in grade 1. She helps them with their study after sunset. She feels that she is now aware of how to use, save and account for money. Before participating in the Nijera Shikhi course she did not rear any poultry. Now she had 20 hens and 4 geese. She sells a total of 40 eggs a weeks from which she earns Tk.110. (\$2). She also sells vegetables and has a total income of Tk.250 (\$5) per week where as prior to attending the course it was Tk.160 (\$3) per week. Since participating in the Nijera Shikhi course she has also bought a calf. She hopes it will grow and have a calf itself that she will then be able to sell. Maksuda also keeps accounts of family income and expenditure. She found Ja Chai hard at first but at the end of the course it was easy. She said her husband helped her a lot with literacy and with trading and thinks that Bangladesh will change if all husbands help their wives in this way.

Summary of effects for single women

A total of six single women were interviewed, they were generally in their early or mid teens. These interviews are summarised as follows:

Table 10. Analysis and summary of interviews of single women in the Barisal area

Name	Use of R,W,N	Teaching children	Main effects
Khalna 1 & 2 groups			
Shazeda & Monira	Can read places they visit & land records, keep accounts	Siblings	Income increased by Tk.100-110 (\$2) / month from selling eggs
Khalna 3 group			
Shahida	Reads story books		Uses soap to wash hands and ash on latrines, washes hands before eating, covers food
Shimu	Keeps accounts		Personal hygiene
North Nathoi			
Shama Aktar	Reads story books, writes to Father	Siblings	Has learnt about clean water
Rahima			Advises parents to save, is now aware of income generating activities

Note: R = Reading, W = Writing, N = Numeracy.

The use of literacy skills and the effects that becoming literate has had on their lives are similar to those for married women but the effect may not, as yet, be as strong. Only two of the six are engaged in income generating activities. Changes in personal hygiene seem to be the main change. About half of this sub-group are also helping siblings with schoolwork. The stories of two of these women illustrate this, notes from the interviews with other women appear in appendix 4.

Shahida (Khalna 3 group) is in her mid teens, she reads some storybooks from her neighbours' children who are in class 3. She feels that small changes have taken place in her life due to her participating in Nijera Shikhi and that "there are many thoughts in her mind". She is now much more interested in education. She has not changed her cultivation of vegetables. Shahida now maintains personal hygiene – uses soap to wash her hands and uses ash on her latrine. She now washes her hands before eating and makes her neighbours do this. She also covers food that has been prepared. As a consequence the incidence of diarrhoea in her household has gone down.

Shimu (Khalna 3 group) is in her mid teens, she says she has read a few schoolbooks from her friend but could not give the titles. She follows the advise in Ja Chai on personal hygiene. She uses ORS from the market and was not previously aware of this. She says there has been no change in her income since joining Nijera Shikhi but that she now keeps records of her income and expenditure. She would like to rear a cow but can't as she has no capital. She now has a new habit, which is "to get up early each morning for good health".

Summary of effects for male learners.

A total of six men were interviewed, three were married with one being quite old. Three were single and in their late teens. These interviews are summarised as follows:

Table 11. Analysis and summary of interviews of men in the Barisal area

Name	Use of R,W,N	Teaching children	Main effects
Shanuhar group			
Abdul Gaffar			Income has increase from Tk.3,000 to Tk.3,350, started trading in coconuts and firewood.
South Nathoi group			
Lokman			Now wants children to be educated
Tofazzel	Reads children's books, keeps accounts of paddy in a cigarette packet		Can now write his name and address
Firoj	Reads posters, keeps accounts		
Alim	Keeps accounts of firewood business and petty cash		Does not feel any change
Kalam			Now wants children educated, no longer using "shame" of thumb, income changed from Tk.1,500 to Tk. 2,5000

Note: R = Reading, W = Writing, N = Numeracy.

It would be unwise to draw too many conclusions from interviews mainly from just one group, but the changes did not appear to be as marked as for the women. The men seemed less likely to read and write although those that were trading were inclined to use their numeracy to keep basic accounts. None of the men taught their children or siblings, but two of the married men remarked that they wanted their children to be educated. One said that although he did not help them with their work he helped them financially with their education.

The stories of the following three men illustrate this, notes of interviews with other male learners appear in appendix 4:

Abdul Gaffar (Shanuhar group) is married with children. He did not score well in the test but still feels that he has learnt from attending the course.

- Has gained a sense of family and civic responsibilities.
- He can now do transactions with shopkeepers.
- Has started trading – sells coconuts and firewood. – Income has increased by about Tk. 350 per month from Tk. 3,000 to Tk. 3,350.

- Has children aged 10 and 14 but does not have enough time to help them with school work but he does help them with money for their education.
- He would like a permanent education system set up that they can use.

Md. Alim (South Nathoi group) is in his late 20s and deals in firewood. He buys trees from the owner and makes firewood, which he sells. He has benefited from Nijera Shikhi in that he now understands more about how to increase income. He keeps accounts of his income and of his petty cash. He does not read and write as he has no time. He does not feel that life has changed in any big way since he did the course.

Md. Kalam (South Nathoi group) is in his early 20s and is a farmer with four children. He says that having attended the Nijera Shikhi course he is keen to get his children educated. He can now sign his name instead of using his thumb, which he thinks is a “shame”. Now he is out of this shame and it is a great glory to him. Now no one can exploit him. He does fish trading and iron selling and earns about Tk.2,500 whereas before it was Tk.1,500. He reads books from his younger sister who is in class 4 and writes notes from the books. If he makes a mistake his sister corrects the writing.

Interviews with Shebis (helpers)

A total seven Shebis were interviewed (notes of interviews in appendix 5). They all commented that the Nijera Shikhi materials and methods were good. All of the Shebis said that they had learnt a lot themselves by helping the group. This learning was similar to those of the students. Several Shebis remarked that they had learnt more about income generating activities and were now engaged in more of these themselves. They had also learnt more about personal hygiene and their own literacy skills had improved. In addition, they had gained insights into teaching methods.

Five were asked about the training they had received from Nijera Shikhi, four felt that it was about the right length (four days followed by two days later on) and that the quality was good. One felt the course should have been longer and needed more on teaching methods.

Cost effectiveness / cost efficiency

In looking at the cost effectiveness and cost efficiency of a programme the unit cost of its operations are factored in. So the cost efficiency will be the unit cost time 100 divided by the efficiency of the programme expressed as a percentage i.e.

$$\text{Cost efficiency} = \text{Unit cost} \times \frac{100}{\% \text{ efficiency}}$$

When research was conducted into Nijera Shikhi in 1997 unit costs were Tk.85 per learner, with an efficiency of 73% this meant that the cost efficiency or the cost per literate person was Tk.116 (\$2.64).

Unfortunately, in November 2000, the finance department of Nijera Shikhi was not able to provide figures to enable unit costs to be determined. As a consequence it has not been possible to determine Nijera Shikhi's cost effectiveness as an NGO. However, as efficiency has decreased and costs have increased, Nijera Shikhi will have become less cost efficient.

Cost effectiveness is a similar concept to cost efficiency but looks at outcomes instead of output. As a result it is more difficult to determine cost efficiency and no attempt has been made to do so during the course of this research.

Why is Nijera Shikhi less efficient and less effective in Barisal?

In comparison to the impact recorded at Tarash in 1997 these results from Barisal seem less strong. There is probably a greater emphasis on personal hygiene and growing more nutritious food, although such changes were also reported with the Laluamazhira group from Tarash. The changes in income also seem to be less marked than those reported at Tarash. There are several possible explanations for this:

1. **Less “social energy”:** the motivation, enthusiasm, and “social energy” (see Cawthera 1999) that a more NGO mode of operation is able to generate and harness for change is likely to be less than that generated by a People’s Movement.

2. Less effective post literacy: the post-literacy aspect of the course as operated at Tarash where the group carried on meeting as a group, reading new material and discussing its relevance and usefulness to their lives are more likely to enable people to bring about changes in their lives. The post-literacy part of the course is operated by Nijera Shikhi as an NGO around Barisal, where someone was employed to ensure that the learners had access to the mini-library for six months. They read this material, if they chose to, as individuals rather than as a group, helped by the Shebi. This is less likely to facilitate such change.

3. No post literacy at Khalna: the groups at Khalna unfortunately, did not have any post-literacy materials and so had fewer resources to stimulate them to make changes in their lives. A mini-library was not provided, as a public library was due to be started there. Unfortunately by November 2000 this had not yet happened.

4. A link between efficiency and effectiveness? As has been shown, fewer people attained functional literacy at Barisal than at Tarash and there may be a link between this and people's ability to bring about change in their lives. At the risk of using a circular argument it is worth remembering that the UNESCO definition of functional literacy is someone: "...who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community's development" (UNESCO 1991: 28)

Summary and conclusions

While the efficiency and the effectiveness may not be as great for Nijera Shikhi operating in an NGO modality in Barisal as for Nijera Shikhi operating as a People's Movement in the Tarash area this should not hide the fact that it has been able to facilitate substantial and significant changes in the lives of those involved. The findings from this evaluation can be summarised as follows:

Efficiency

- Around 41% of learners are estimated to have retained functional literacy skills following the completion of their course. This compares unfavourably to the 73% estimate for the People's Movement modality in the Tarash area. However, as the average score of those tested only declined from 87% to 73%, it is still likely that most of those participating in the courses at Barisal achieved a level of literacy in excess of basic literacy. The figure of 41% also compares favourably with Abadzi's estimate of 13% most literacy schemes after the completion of courses and allowing for relapse.
- While there has been a substantial decrease in the percentage of those tested as functionally literate there has only been a slight decrease in the percentage of those tested as functionally numerate (90% to 82%). This may be because numeracy has greater importance in the lives of many poor people.

Effectiveness

This is the change which people believe have occurred as a consequence of becoming literate. These included:

- Changes in personal hygiene that are likely to lead to a reduction in water born diseases.
- Families growing and eating more nutritious food, which is likely to lead to an improved health status.
- An increase in self-confidence and decision making abilities.
- People starting to develop more entrepreneurial activities and a more entrepreneurial way of thinking.
- People starting to save in order to raise capital to engage in entrepreneurial activities.
- Children from previously illiterate families being encouraged to attend school, to do their schoolwork and receiving help with this at home.

From these glimpses into the operations of Nijera Shikhi at Tarash and at Barisal and with the findings that it appears to be less efficient and less effective operating more in an NGO modality at Barisal we can conclude that:

- 1. A People's Movement modality is better.** Where it is possible to operate in a people's movement modality this is likely to be both more efficient and more effective. However managing and maintaining People's Movements is considerably more difficult than for other organisations, this raises questions about their sustainability, which are briefly explored in section 4.
- 2. Post-literacy is very important.** Sustaining effective post-literacy activities plays an important part in increasing efficiency and effectiveness, i.e. people are more likely to retain their literacy skills after the end of a course and more likely to be able to use these to bring about changes in their lives if they are involved in effective post-literacy activities. It may also be the case that such activities will be more beneficial if conducted on a group basis rather than an individual basis.
- 3. Importance of numeracy.** Numeracy may be as important, if not more important, than literacy. Courses, which factor this into their design, may be more effective than those, which pay little attention to numeracy.

4. **Literacy impacts on livelihood.** People are able to bring about significant changes in their lives as a consequence of participating in a well-designed literacy course. These changes can significantly improve people's livelihoods. It is possible that Nijera Shikhi would have a greater impact on livelihoods if it formed partnerships with micro-enterprise organisations.

5. Concluding issues, comments and recommendations

Why the change in modality?

Nijera Shikhi was founded as a People's Movement to eradicate illiteracy from Bangladesh. Although beyond the scope of this study it is worth briefly speculating over some of the factors which could be worth exploring when trying to understand why it became more like an NGO and in the process became less efficient and effective.

1. A change in the external environment. During the years preceding this study the Government of Bangladesh ran its own large-scale multi-million dollar literacy programme. This had two major impacts on Nijera Shikhi. First, the government paid an honorarium to the Teachers and Organisers running its programme and so "corrupted" the environment Nijera Shikhi operated in. This made Nijera Shikhi feel that it was too difficult for it to operate on a voluntary basis without paying a small honorarium to its Shebis and Organisers. In doing this the whole basis of Nijera Shikhi's philosophy and operations was undermined and its main resource of "social energy" could not be harnessed and utilised as effectively. Secondly, the Government of Bangladesh took measures, which in effect banned all NGOs, working solely on adult literacy. Faced with this situation Nijera Shikhi expanded its pre-primary work as its future, working solely in adult literacy, was too uncertain.

2. The death of its founder. John Hastings, the founder of Nijera Shikhi died in February 1998. This occurred before Nijera Shikhi had "bedded down" as a People's Movement working on a very large scale. To some extent disagreements and discussions within the leadership of Nijera Shikhi further compounded this, as some of those left to run the movement perhaps failed to fully appreciate its distinctive way of operating.

3. Receiving large scale funding. Early in 1998 Nijera Shikhi received, what by its standard was, a very large grant, from a bi-lateral agency, to scale up its operations. This had inevitable consequences for Nijera Shikhi. As Korten observes: "*True movements are the purest of voluntary phenomena. Perhaps the surest ways to kill them is to push them towards bureaucratisation by drowning them in money*" (Korten 1990: 126). In securing such funding Nijera Shikhi also had to agree to pre-determined targets for outcomes more dependably achieved by utilising the "interventionists" methods of NGOs rather than the fluid and responsive methods of a People's Movement. It also meant being influenced by the findings of consultants, some of whom had no prior experience of People's Movements and had little understanding of their philosophy and the issues associated with their management.

It is likely that each of these three factors has played a part in the changes which have taken place in Nijera Shikhi. To some extent they are also inter-related. For instance, Nijera Shikhi's decision to pay a small honorarium to its volunteers, taken in response to the widespread paying of honoraria in the government's funded programme, could not have been taken if it did not have the financial security derived from the receipt of large-scale funding. Similarly, the impact of the consultants on Nijera Shikhi may have been more beneficial had there been someone within Nijera Shikhi more able to creatively explore with them the implications of their findings in the way Nijera Shikhi's founder would have done.

Is the modality of a People's Movement Sustainable?

The change in Nijera Shikhi's modality raises questions regarding the sustainability of a People's literacy movement. However, while Nijera Shikhi has not been sustained as a movement it cannot be concluded that this modality is unsustainable or invalid. The combination of factors, which lead to its demise is too powerful for most organisations to resist. As yet we simply do not know if, in more reasonable circumstances, such a movement would be able to sustain its efficiency and effectiveness. The research into Nijera Shikhi tends to indicate that when operating as a people's movement it can be one of the most efficient, effective and cost effective ways of enabling people to attain and retain literacy and of bringing a sustained and positive impact on the livelihoods of poor people who are illiterate.

It is worth reflecting on David Korten's remarks. He observes that different sectors of society utilise different sources of power. Threat power is used by the state, economic power by business and integrative power by citizens. People's Movements are unusual in their ability to harness all three types of power. He continues "while

this makes them unusually complex and difficult to manage, it also gives them distinctive strengths when these three forms of power are skilfully united.” (Korten 1990: 100)

Nijera Shikhi vis-a-vis the government’s Total Literacy Movement

While not a focus of this evaluation, during the course of the interviews, four people who had experienced contact with both Nijera Shikhi’s and the Total Literacy Movement’s (TLM’s) materials, were asked about the two programmes. Their comments are worth highlighting.

At Penguary two people who had become literate with Nijera Shikhi were also enrolled with TLM. One because she was told it was a government regulation that she had to do this and the other because she wanted access to more reading material. Both of these learners said that they felt Nijera Shikhi’s was a better course.

At Binshara one person was interviewed who had become literate with Nijera Shikhi and whose wife attended TLM classes. He had looked at the TLM material as his wife used it and felt that the TLM material does not take learners to as high a level as Nijera Shikhi. He also felt that Nijera Shikhi had better methods. This view was echoed by the organiser of Nijera Shikhi at Binshara who also taught on the TLM programme. His observation was that Nijera Shikhi’s materials and methods were better, that students learnt more vocabulary and that they learnt more quickly with Nijera Shikhi.

The real test of any literacy programme relates to the retention of literacy skills after the end of the course and the changes that the course has enabled people to enact in their lives. We do not have data on the TLM in this regard. However, in the absence of this, the above observations of people who have had direct contact with both programmes, indicate that the quality of Nijera Shikhi’s work may be superior to that of the government’s TLM programme.

- It would be good to have comparative post-course data on TLM. As Nijera Shikhi, has also implemented a part of the TLM programme it could be in a good position to start to gather such data.

General conclusions and recommendations

Conclusions

Specific conclusions for each section appear at the end of the relevant text. A compilation of these appears in the executive summary at the start of this report. Overall conclusions are as follows:

1. This evaluation of Nijera Shikhi shows that it is possible for a well designed literacy programme to enable at least 70% of the people who start a literacy course to retain functional literacy five years after the completion of their course and that this can be done at a very low cost per learner. It further shows that this can be achieved in an environment of sparse literacy resources.
2. Nijera Shikhi has also shown that a well-designed literacy programme can enable people to bring about significant and sustained changes in their lives. There can be substantial benefits to livelihoods, nutrition, preventative health practices and primary education.
3. Nijera Shikhi appears to have been more effective operating through the modality of a People’s Movement than as an NGO. This appears to be the case in terms of the proportion of learners who retain functional literacy and the extent to which it has facilitated change in their lives.
4. It seems that numeracy is just as important, if not more important, to learners in their everyday lives. This needs to be factored into the design of literacy courses.
5. Effective post-literacy activities are likely to be an important part of any well-designed literacy course. To be effective these may need to take place as a group activity, which encourages people to discuss the new ideas they read. This might be more likely to enable learners to both retain their literacy skills and to bring about significant changes in their lives.

Recommendations

A) For Nijera Shikhi

Due to the policy of the Government of Bangladesh Nijera Shikhi is currently unable to undertake activities in adult literacy. Bearing this in mind the following recommendations are made:

1. Nijera Shikhi should give careful thought as to how it could re-discover itself and operate as a people's movement in the field of adult literacy, should the opportunity to do this arise in the future. It could be that in a few years time there will be a need for this and Nijera Shikhi should be ready in case such a need arises.
2. Nijera Shikhi should also consider if it is possible to undertake its pre-primary work through a People's Movement modality. If it considers this to be feasible then this should be tried experimentally in a pilot area.
3. Nijera Shikhi should undertake a similar evaluation to the one documented in this report with five groups of learners who have become literate with Nijera Shikhi using the TLM materials and methods. The learners should have completed their course about a year prior to the evaluation and should be from rural villages. This would provide a useful comparison for Nijera Shikhi.
4. When operating in adult literacy Nijera Shikhi should consider forming links with micro-credit organisations so that learners are introduced to such organisations during the post-literacy phase of their learning. This could help poorer learners to access capital and so more easily engage in entrepreneurial activities. Nijera Shikhi should be wary about attempting to provide such micro-finance itself.

B) For Development Agencies and Policy Makers

1. This evaluation has yielded data, which indicates that well designed adult literacy programmes can have a sustained and beneficial impact on the livelihoods of some of the world's poorest people. Therefore development agencies should review whether or not they are giving adult literacy sufficient priority. They should also consider commissioning further research to ascertain how wide spread these benefits are among literacy programmes in general.
2. Conclusions from this report indicate that a People's Movement modality based on "self-education" can be extremely effective in the field of adult literacy. Research is needed on how such movements can be most effectively initiated and supported in a sustainable way. Action Research may be the most suitable way to undertake this.

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Appendices

Appendix 1. Analysis of literacy and numeracy test scores to examine factors that may influence long-term literacy retention.

1. Analysis by initial test score.

As many people (9) did better on the November 2000 test as did worse, while just one person's score remained the same. The average gain among those who gained was 6.4%, while the average loss among those who did worse was 8.6% (7.8 % if the score of Farida who has the eyesight problem is removed). Could people's literacy skills, as measured by the test instrument, a year after the completion of their course be used to predict whether a person will enhance or lose literacy skills over a period of four to five years? To test that hypothesis, we may examine the average percentages in 1997 of those who did better and those who did worse in 2000. For those who did better in 2000, we find that the average 1997 score was 89.9%. For those who did slightly worse in 2000, the average 1997 score was 91.9%, i.e. 2.0% higher than the other group. The evidence then does not support the hypothesis.

2. Analysis by age

Sazeda, who lost the classification, was about 40 years old. Might this fact signal that age is a factor influencing the retention of the skills of literacy and numeracy? Two other persons in the sample offer additional evidence on the issue. Both were also about 40 years old and had also each obtained 87 % on the test of July 1997. One of them, Golenoor Begum, did indeed attain a lower percentage on the November 2000, test - dropping from 87 to 80%. By contrast, the other, Fahima Begum, gained an additional seven per cent with a score of 94%. On this evidence, no safe conclusion is yet possible about the effect of age on the capacity to retain the skills of literacy and numeracy.

However there are at least three other ways to test this hypothesis, although in doing this it should be born in mind that the data sample used is very small

First, the data shows that four of the 19 people who took the test were older than 30 years: one of them (25 %) did better in 2000 than in 1997, while three of them (75 %) did worse. Of the 15 people who were 30 years old or younger, eight (53 %) did better in 2000, six (40 %) did worse, while one (7%) did neither better nor worse. This test supports the hypothesis, suggesting that learners older than 30 are more likely to do worse rather than better on a test after a lapse of three and a half years, whereas the reverse is likely for learners aged 30 or younger.

A second way to test the hypothesis is to compare the 1997 and 2000 scores of the two groups. The four people older than 30 had an average score of 89.3 % in 1997 and an average score of 84.3% in 2000, a decline of 5%, which is not statistically significant. The 15 people aged 30 or younger had an average score of 91.3% in 1997 and an identical average score in 2000. If statistical significance is ignored, this test would also tend to support the hypothesis in so far as the older group had a lower average score in 2000 than in 1997, but would not support

the hypothesis that younger people might enhance their skills - on average they seem neither to forget nor to enhance them.

Looked at in a third way, the data shows that the three people aged older than 30, who did worse, lost on average 9.0 %, while the six aged 30 or younger lost on average 8.3 %, almost the same. On the gains, the one person older than 30 gained 7%, while the eight aged 30 or younger gained an average of 6.4%, again almost the same. If this exceedingly tiny sample is at all representative of adult learners, it suggests that people older than 30 might well be more likely than younger people to forget skills after three and a half years, but that what they forget will be no more than some younger people may also forget in the same period. Conversely, some people 30 years or younger are likely to enhance their skills, but their degree of enhancement is likely to be no greater than that of older people who also enhance their skills.

In short, although the data supports this hypothesis, it also warns of its limitations. In particular and most important, it shows that Nijera Shikhi's adult learners, almost regardless of age, are likely to remain functionally literate for at least five years after completing their course.

Observation during the test tends to confirm this aspect of the data analysis. As might be expected the older members of the group were slower and more laboured than the younger ones. The research was not of sufficient depth to be able to determine if the slowness of the older women was due to the cultural difficulties of completing these tasks in front of their husbands and elder brothers or if the application of the skill took longer. However, they still retained functional literacy. In contrast the younger neo-literates appeared to be quick and comfortable with writing even though they now seldom used this skill except for book keeping. However, they still retained functional literacy.

3. Analysis by gender.

Although this sample unfortunately contains only five men, a comparison by gender is of interest. In 1997, the 14 women in the table scored an average of 90.0%, while the five men scored an average of 93.2 %. With such a tiny sample, the difference between the two groups is statistically insignificant. In 2000, the 14 women scored an average of 89.1%, while the five men scored an average of 92.0%. Both groups then declined slightly - but statistically insignificantly with the difference in the decline between male and female learners also lacking statistical significance. The inferences seems to confirm that gender makes no difference to capacities to learn and to retain literacy skills

Appendix 2. Additional notes on the literacy testing at Lalumazhira

Sazeda was not classified as functionally literate in November 2000 but was in July 1997. In November 2000 she scored a low mark of just 2 out of 10 in the last part of her writing test but maximum marks in the other two parts of the test.

Joba scored a high overall mark when tested in 1997 but just failed to be classified as literate and numerate as she failed the numeracy part of the test. In November 2000 she was classified as literate and numerate with the highest overall mark and scored 100% in the literacy part of the test.

Farida was not classified as literate or numerate on either occasion. When tested in July 1997 she failed the writing test but passed on the other two parts. In November 2000 her writing skills were very poor and she also failed the reading part. Yet, she scored 100% in the numeracy part of the test on both occasions. An eyesight problem may be responsible for this.

Amina did not complete the test in November 2000 as she needed to attended mid-day prayers. The part of the test she completed showed an increased score.

Appendix 3. Additional interview notes from learners five years after the completion of their course.

1. Lalumazhira

Fahima Begum is probably in her late 30s and has three children. She feels she has benefited from attending Nijera Shikhi as she now plants vegetables, is a member of a credit group and earns income from selling eggs, goats and vegetables. The vegetables she grows and sells, such as beans, are ones that she did not grow before

attending the Nijera Shikhi classes. Fahima estimates that her income has increased by around Tk.3,000 (aprox. US\$54) a year as a result of becoming literate through Nijera Shikhi. The only reading she does is reading some of the primers from the government's total literacy movement (TLM). She does not write anything, but does teach her children a little arithmetic.

Joba Peeven is now about 15 years old and so started with Nijera Shikhi when she was just nine. The only reading she does is the primer from the government's TLM and some of her small brothers' books from the primary school. The main barrier preventing her from reading more is a lack of time. The only writing she does relates to the government's TLM programme. She keeps accounts for her trading of eggs and hens at the market. She feels that the main benefit of Nijera Shikhi is that it has helped her with keeping accounts. She didn't use the mini-library before. She would like some Bengali books and some books on accounts.

2. Penguary

Shaheeda Begum is in her late twenties and has three children between the ages of 11 and 16. She says that she does not do any reading now but does some writing with her children, she also uses her numeracy to keep accounts of family transactions. Shaheeda sees this as being one of the main benefits of having attended the Nijera Shikhi classes. She believes that her income has increased as a result of attending the classes as she now grows vegetables, rears hens and trades these, something, which she did not do before. She now has 10 hens where as before attending the classes she did not have any.

Golenur Begum is in her early 30s. She reads material from the Government's Total Literacy Movement (TLM) which is known locally as Gonashikkha. When asked why she has joined the TLM classes if she has already become literate through Nijera Shikhi she replied that she had been told that she must go to the TLM classes as it is a government requirement that she does so. When comparing the two she said that she thought Nijera Shikhi materials and methods were much better than the TLM ones.

Golenur does not do any writing, but she uses her numeracy to keep records of family income and expenditure. She thinks that life is better now that she has done the Nijera Shikhi course – now she has 20 hens and grows vegetables. Her income has increased but she cannot say by how much.

Lipi Parveen is in her late teens. She is fond of books and reads her young brothers' books. She also writes stories. She uses her numeracy skills to keep records of the eggs she sells. On average she sells about 10 a week at Tk.3 each. (This equals about Tk.1500 or US\$27 a year). She feels that attending the Nijera Shikhi course has benefited her but finds it hard to say how.

Rahida Khatun is in her early teens. She reads books from the TLM class. Although she could already read and write she has joined the class to get more reading material. She says that of the two courses Nijera Shikhi is better. She has read a book on women's trafficking which she got from the Shebi (the classes helper). She writes letters to friends. In addition to this she keeps records for her Father's rice trading and growing, which they did not do before she attended the classes.

Amina Begum is in her early teens. She now does Arabic education at the Madrassa. She also reads Bangla literature and poetry with books she gets from the market. The only writing she does is by making notes on the books she reads – she also keeps records.

3. Binshara

Md. Sultan says he is in his mid twenties but looked a lot younger! When he has leisure time he reads the *World Diary* which he gets from his uncle. He does this about once a week. Occasionally he writes some lines but doesn't use numeracy. He feels that he has benefited from attending Nijera Shikhi classes in that he now understands trade and commerce. (*This was the only interview where the interviewee was far from convincing*).

Appendix 4. Additional notes from learners who learnt with Nijera Shikhi as an NGO.

Khalna 1 & 2, interviewed 28/11/00 9-11 a.m. two groups tested at the same time with their test data being disaggregated. Only data for Khalna 1 is included in the efficiency data. Course started 5 Feb. 2000 and finished 7 Sept. 2000

Sufia is pleased that she did the course and feels she knows more things now and can now read and write and understand more. She uses numeracy as she does tailoring, and uses it for measuring and cutting cloth. She teaches her younger sister who is 9 years old and who goes to school. She also writes letters to her Father. Sufia now has 1 hen and 4 geese she didn't have any before attending Nijera Shikhi as she didn't leave the house before she did the course.

Shahidi and Nadira are both pleased that they did the course. They can do reading and writing and learn more about many things. They teach their younger brothers, sisters and children. Can identify places when they visit them – are able to read the names and know where they are. They also know about land records, which are kept in the court and how to acquire land and can see this in the land records. They read newspapers and letters from their brothers in Saudi Arabia and write to them. They use numeracy and keep records of egg selling and cow rearing. Their individual income has increased by about Tk.100 per month and by about Tk.110 (\$2). They have not used library books since the course and there is no mini-library.

Rezia is in her 30s and has three children. She is pleased she did the course, feels good that she can read many things and now reads younger children's storybooks. She teaches her daughter aged 12 who goes to school. She does not do any trading and when asked why this is when the other women do, she responded that not all women are the same and she wants to give priority to things in the house. She now covers food and has clean / boiled water – she didn't do this before but has learnt that this is important from the course. Rezia would like more support from Nijera Shikhi for income generating activities and needs credit for capital. A savings group has not functioned as a part of Nijera Shikhi here.

Dolly and Runu are both in their 20s / 30s and are pleased they did the course. They can now understand more things and can teach children and they are learning about "the whole world". Between them they have children aged 8,6,1, and 7,5. All but the one year old are helped with reading and writing and go to school. They are not trading. They use boiled water, cover prepared food and prepare ORS when there is diarrhoea. They didn't do these things before doing the course. They feel that they need capital to do income-generating activities.

Khalna 3. Interviewed 29/11/00 11.30 – 1.00 Course started Feb 2000 and finished July 2000

Hasina is in her early 20s and has one child. Now that she has done the course she has encouraged her husband to take it as well and he is doing this. She wants to continue her learning. She feels more prestige now that she can sign her name and does not have to use her thumb to sign. She writes to her Father and her Husband who is now working away. She has found that it is important to use nutritious food and now eats this herself and feeds it to her son – especially eggs, bananas and meat. She found the primer Ja Chai was good and easy.

Shahana is in her mid 30s and has four children, two of whom are married with two living in the home. She is not involved in any other organisations and joined the group willingly, without any pressure and has appreciated it. She sends her children to school – her daughter is in class 9. She reads when she has time and wants to use her education and would like her children to be educated. She keeps records of the family income and expenditure. She now knows how to make O.R. Saline and cultivates plants and vegetables. She had four hens which died.

Rashida is in her mid 40s and has two children, one aged 26 and a son aged 14 who is in class 10. She says that because of Nijera Shikhi she now uses safe water from the tube well and also makes sure that it does not have arsenic. She also cultivates some vegetables and sells some of these when she needs money. She keeps verbal accounts! She would like to read more and says that she can't write as her eyesight is deteriorating.

Moni is in her early 20s and heard about the Nijera Shikhi class from a neighbour. At first she was not sure if the primer Ja Chai was good enough but after a month she decided it was. She has learnt about clean water and communal harmony from the course. She rears five hens and sells 4 eggs a week making about Tk.20 (40c) a week. She also sells Puishak – a local vegetable and earns about Tk.100 (\$2) per month from this. Moni thinks that Nijera Shikhi should also provide training in income generation.

Sharmin is in her 20s and has two children with the eldest attending class 5. She now cultivates three local vegetables: lau, chalkumra and bean. She sells these and earns about Tk.200 (\$4) a month. Before participating in Nijera Shikhi she only grew chalkumra. She thinks that her income has increased by about Tk.60 (\$1.1) a month through participating in Nijera Shikhi. As a result of attending Nijera Shikhi she feels that she has more confidence when she is in public places and that she has more respect for the older men. She can now count and save money and "will do her best to educate her children at any cost".

North Nathoi 29/11/00 Course started 19 Jan 2000 and finished July 2000

Shefali Roy is in her 30s and is married with a son and three daughters aged between 16 and 8. She helps her children with their study and in doing so reads and writes a little herself. She is now able to read the names of the bus stops and of the launch stations on the river. She saves some money – an idea which she got from the primer Chai. She has 5 geese, 10 hens, 1 goat, and 2 cows. She had some of these before she joined the course but is now trying to increase their numbers and bought the second cow since the end of the course. She now has the idea of making profit from capital.

Mipu Begum is in her mid 20s and is married with a son and a daughter, aged 6 and 2. She is now trading a little. She has 5 geese (0 before the course), 4 hens (same as before) and 2 cows (1 before). She sells a few eggs and makes about Tk.12 (22c) a week from this where as before the course she did not do any trading. After reading Chai she has started to grow vegetables as these have vitamins which help the children's health.

Shima Aktar is in her early teens, is not married and has one sister and two brothers. She reads storybooks which she gets from her neighbours, she also writes letters to friends and to her father who is in service in a different district. She helps her siblings with school homework. She does not do any trading but feels she has learnt a lot from Chai e.g. to drink clean water, communal harmony and respect of elders.

Rahima is in her mid teens and is not married and is the eldest child in her family, having four sisters and one brother. She does not do any trading as her parents do and she advises them to save money. She found Ja Chai hard but phase 2 was better. She thinks that the main change in her life from the course is that she is now more conscious of the idea of income generation.

South Nathoi, 29/11/00 1.15 – 2.30p.m. course started Jan 11 1998, finished July 1998. Male group.

Lokman is an older, married man. When tested he could neither read nor write but he was very quick at answering the numeracy questions. He says he did not get much benefit from Nijera Shikhi as he was an irregular attender but he does advise his children to continue their literacy as he realises the impact it has.

Tofazzel lives by cultivating land. The benefit he has from the course is that he can now write his name and address. He also thinks that his attitude and manner has changed. He reads books at night, which he gets from young children. He doesn't write. Before he attended the course he didn't keep any records of his paddy cultivation and selling, but he does now. He keeps these records in a cigarette packet.

Firoj is in his late teens and does not read any books but he reads posters at the roadside and cinema posters. After attending the Nijera Shikhi class he finds it easy to keep records of accounts. He found Ja Chai hard – especially the numeracy parts but phase 2 was good. He cultivates his land but doesn't do any other trading.

Appendix 5. Notes from interviews with Shebis

Shaleha Begum (Khalna 1) 20 students started in her group and 18 finished. Glad she did it – books should be easier. Training: had 4 day basic training and 2 days refresher training done by the Nijera Shikhi regional officer. The training was good but there should have been more – needed more on teaching methodology. She had the Nijera Shikhi guide books and says they were good. She is now in her 30s and studied to grade 9 at school. Doing the work has helped her literacy and she has learnt many things including insights into teaching methods.

Nazma Begum (Khalna 2) 20 started in her group and 17 finished. Is pleased she did it, feels Nijera Shikhi material is good. She feels the training she did was good – long enough and of good quality. She is in her 30s and studied to class 8. The UPC asked her to be the Shebi. Doing the work has helped her literacy. Support is needed for income generating activities etc.

Minara (Khalna 3) It was good to do the work – She feels the training was good both quality and quantity.

Abdul Kalam (Shanuhar – co-ed evening class) He has SSC (grade 10?). 16 finished the course. He thinks that about 10 are still literate and numerate. The 6 who are not literate were irregular attenders because of family problems. He would like to help them more but there is nothing forthcoming from Nijera Shikhi to encourage him to do so. (Had honorarium of Tk.400 after part 1 and Tk.500 at the end).

Shahnazaprar Been (North Nathoi) She has enjoyed doing the work and feels she has learnt from it. She took her own education to class 10. 20 started and finished the course. 14 were tested: 6 were not available as they had gone to Grameen bank. She thought the standard of those not tested was about the same - they were already in the Grameen bank before they participated in the Nijera Shikhi class. She had an initial training of 4 days followed by 2 days at a later date and feels this training was alright and the length was about right. 50 people attended the training. While the course was good, she feels they should have been given more books. The group has had access to a mini-library and has used it.

Jannat Aktar (Nathoi) 20 started and completed the course. 12 were present for testing. Of the 8 absent, she feels 2-3 are of a lower standard but that they are still literate. She did SSC herself but failed. She feels the learners have learnt much and that their personal behaviour has changed. They have had access to the mini-library and all learners used it for 6 months. She teaches tailoring to a large class, many of whom were in her literacy class.

Mahbub Hasan (South Nathoi) – male group. He says that it is good to have done the work. He feels that he himself has learnt to earn money by income generation and has exchanged ideas with the learners and learnt about the methodology of teaching. He feels the training was good – it was long enough and the quality was OK. He took his own education to class 10. 20 started the course and 15 finished, 9 were tested. The 6 missing had gone to prayers and are of the same standard as the rest. He regards all 15 as literate and numerate. They have had access to the mini-library and still use it.

Appendix 6. Modified version of Zieghan's test used to test for functional literacy

1. Writing test

Q	Description	Procedure	Max. score
1	Fill in a simple loan application form	Go to 2	6
2	Take from dictation three short sentences each slightly more difficult	Go to 3	9 3per snt.
3	Write a simple letter to a friend saying that you will visit next month and send Tk 100.	Go to reading test	10
	Maximum score		25

2. Reading and understanding test

Q	Description	Procedure	Max. score
1	Read a letter and answer 3 comprehension questions	Go to 2	9
2	Read instructions from a saline packet and answer 3 comprehension questions	Go to 3	9
3	Read three sentences from a standard 4 reader (p.61)	Go to numeracy test	7
	Maximum score		25

3. Numeracy test

Q	Description	Procedure	Max. Score
1	Ask the testee to count out allowed from 79 to 108	Go to 2	2
2	Reading 4 prices from a card	Go to 3	4
3	Take 4 numbers from dictation	Go to 4	4
4	4 Arithmetic questions for the 4 functions set in an agricultural or commercial context	Finish	10

	Maximum score		20
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Appendix 7. English Translation of the test used

Writing test

1. Complete loan application form
2. *I will say three sentences to you, you should write these on the back of the loan form:*
"My name is Karim"
"Paddy is our main crop"
"We study in our leisure time"
3. *Write a letter to a friend informing him or her that you will visit them next month and that you will be sending them Tk. 100.*

Reading and understanding test

1. *Read this letter carefully, you will be asked three questions about it when you have read it.*

Dear Salam,

I hope that you are well. I have some bad news for you that my son Kakon is sick. He has been suffering from fever since last week. I hope that he will soon be well.

Until now I have not received the shoes and clothes that you sent me. I hope that they will arrive soon. Thank you for this gift.

With all good wishes

Your friend

Rafique

- Questions:*
1. *What is Rafique's son called?*
 2. *What did Rafique send to Salam?*
 3. *For how long has Rafique's son being ill?*

2. *Read the instructions on the saline packet. You will then be asked three questions about these instructions?*

1. *When should the saline be used?*
2. *How much water is needed to prepare it?*
3. *How much saline water should be given to an adult patient?*

Numeracy test

1. *Count out loud the numbers form 79 to 108.*
2. *The price of four different items is written besides a picture of each of them. You should read the price out aloud:*

Umbrella 200 Taka

Fish 80 Taka

Cow 5,000 Taka

Cockerel 78 Taka

3. Ask the testee to write down from dictation four numbers from any of the three lines of A, B, C.

- A. 7 13 43 69
- B. 5 17 28 83
- C. 6 15 32 76

4. What is the correct answer to the following questions:

- A. You have 12 chickens and you have bought four more. Now tell me the total number of chickens you have?
- B. You had 12 goats you have sold 4 of them, how many do you have left?
- C. You have cultivated 30 monds of paddy in 1 bigha of land. How much can you grow in 3 bighas of land?
- D. You have 20 eggs. You share the eggs between 5 people equally. Tell me how many eggs will each person have?