

Full Length Research Paper

Evaluating training cascade: A methodology and case study

Mohammad Rafi

Research Coordinator, Research and Evaluation Division, BRAC Bangladesh. E-mail: rafi.m@brac.net.
Tel: 9112838, 0171-303-7220.

Accepted 22 December, 2009

Training has increasingly turned into an important NGO tool for rural development in Asia and Africa. Such a use has made it essential to assess the impact of these training sessions. Again a good portion of these sessions are offered through cascades. There has been skepticism on the effectiveness of this mechanism. In response to the above need and skepticism, the paper assessed the effectiveness of training and the cascade under the Human rights and legal education (HRLE) program of Bangladesh Rural Advancement Committee. A theoretical framework was developed and used for the assessment. The findings in a nutshell indicate that the training sessions considerably added not only to the knowledge of the trainees but also to their skill in conducting training. The knowledge and skill were successfully transferred from one level to the next training within the cascade. Above all, trainees develop an attitude to implement the knowledge and did that in the opportunities they received. For example 75 legal education training graduates implemented their training in 59 instances within a 12-month period. The study concluded that the HRLE training was effective in producing desired changes and the cascade was an effective training tool.

Key words: Knowledge, cascade, training, MGO, development.

INTRODUCTION

The nongovernmental organizations (NGO) in their efforts to develop the poor, particularly in developing countries, usually undertake two strategies (Lewis, 1997). Firstly, it provides microcredit to low-income household members so that they might generate extra income through small-scale economic activities. Secondly, develop their potentials to challenge structural inequalities and social exploitations through education, organization, mobilization, etc. Although the NGOs have adopted the strategies simultaneously, based on the strategy emphasized upon, most of them can be placed within a continuum with these strategies being at two ends.

Whatever may be the strategy, human capital development of the parties involved appeared to have become increasingly important to keep them up to the mark. Although numbers of method such as, internship, job rotation, attending conference and workshop, collaborative working and on-the-job training, etc., are used to meet the requirement, training has established itself to be a significant one for the purpose.

Training has turned into a popular means to improve knowledge and skills of the rural population in Asia and

Africa. In the 1970s the training to initiate development, particularly in Bangladesh, was directed mainly towards awareness building of its members by following Freire's model of conscientization. In the later part of the same decade, the NGOs realized that the members, in order to use the microcredit effectively, needed income generating skills. As a result the NGOs started offering training to develop such skill to the members. Subsequently training was also offered to NGO staff to enhance their human capital and skill so that they might serve their clients better.

With time, the NGOs became more skilled and experienced in conducting training; consequently, training courses underwent qualitative changes. The quality of training was upgraded by adopting effective methods (that is, contributing to the achievement of the training objective) in designing and in conducting training. Also where needed, NGOs changed the mode of training to better serve their objectives. For example, Bangladesh Rural Advancement Committee (BRAC) widely using Freire's model of conscientization for awareness building of its members in 1970s finding that the model difficult to

apply shifted its focus to Human rights and legal education training in 1980's, but for achieving same objectives (Rafi, 2003).

One of the common strategies in conducting training particularly in the case of member oriented training is using cascade. Cascade training suggests more than one training programs directed at those employees involved in changes [where] critical changes-related information will flow through the organization in a planned way to facilitate subsequent parts of the institutionalization process (Jacobs, 2002, 180).

The definition seems very much contextual to industrial organization. Four designs of cascade training have been identified in terms of how they are being implemented: hierarchical, process, employee role and project.

In hierarchical; training usually starts with upper management levels and move down wards through the ranks of employees [or otherwise round]. In process design; training follows the chain of cross functional relationship of suppliers and customers on a business. In role design; cascade training follows the line of peer relationships across the organization. Having peers instruct peers offers unique opportunities for increasing training effectiveness (Jacobs and Jones, 1995). Finally, in project design; training follows the interconnections of groups, both internal and external to the organization, which are working in achieving a goal. (Jacobs, 2002, 180-181). These designs are often used in combination as needed.

First reported use of cascade training was in industries during the Second World War. It appeared again in the early 1980s as several organizations such as Xerox and Ford used the approach (Galagan, 1990). Very soon the cascades were taken out of the domain of industries and employed for development by the NGOs.

In spite of extensive use of the cascade in training some, particularly the NGO donors, senior management of the NGOs, and even trainers themselves, are skeptic about its effectiveness. The skepticism is based on two premises internal and ex-ternal to training process. Firstly, knowledge is situation and context specific and is socially constructed; therefore it is not a neutral commodity. Thus, knowledge cannot be transferred in its totality. Second, training always fails to transfer a portion of knowledge and skills intended for to the trainees. The trainers will not be in a position to transfer the portion of knowledge and skills to the trainees which had not been transferred to them in the training where they were trainees. Besides, the training they will offer, will also fail to transfer a portion of the knowledge and skills intended for transmission to their trainees. Knowledge and skill not transmitted can cumulate over the stages in the cascade. Thus, a portion of the training content, though for transmission to the trainees at the bottom-stage, may not reach them at all.

A significant portion of NGO budget aiming at rural development is spent on training through cascade.

Extensive use of cascade has necessitated the assessment of its effectiveness (Mitra and Gross, 2009; Neill, 2005). A convincing assessment of the effectiveness of the cascade also demands the assessment of all the training sessions within the mechanism. Thus, this study has two objectives: 1. Assess the effectiveness of cascade used in training for development by NGOs. 2. The effectiveness of training therein. The Human rights and legal education (HRLE) training of BRAC has been used as a case for these assessments.

BRAC, training division and HRLE program

BRAC is a national private development organization that strives to bring the poor into the main stream of development by alleviating their poverty and by empowering them. From a modest beginning in 1972, BRAC has now become a multifaceted organization with about 28,000 regular staff and 33,000 part-time teachers working all over Bangladesh (BRAC, 2003a).

BRAC believes that poverty is a complex syndrome and to overcome it, a holistic approach and innovative interventions should be taken. Thus, the major development interventions of BRAC are performed in four broad areas - poverty reduction, education, social development and human rights, and health care. Accordingly, development programs have been set in these areas to empower the poor. HRLE program functions under the broader Human Rights and Legal Services program.

The programs are mainly offered to the members of the village organizations (VO). Female villagers whose family owns less than half an acre of land and whose members sell manual labor for at least 100 days a year are eligible to join a VO. A VO consists of 40 - 50 members. The members themselves form the VO by joining it voluntarily but the process is often initiated by BRAC. Presently BRAC has 4.1 million VO members in 74% (65,020) villages all over Bangladesh (BRAC, 2003b).

BRAC has pioneered training among the NGOs. It has long acknowledged the importance of capacity building of both staff and members through training in the achievement of its objectives. The primary objectives of BRAC training are to enhance/ change the knowledge, skill, and attitude of VO members and staff. The courses offered could be divided into three: (1) Skill development training, (2) Awareness building training and (3) Management training. As a standard policy, 10% of any development program budget of BRAC is spent on training. Approximately 70% of the training offered to the VO members in 1999 was through cascade and about 31%, of these training was facilitated by the HRLE program.

It was widely observed that the poor in Bangladesh were ignorant of their legal rights. Such ignorance allows others to exploit the poor and, in particular, poor women (White, 1992; Arens and Burden, 1995). In response to this reality, BRAC organized the HRLE program in 1989

Stages of HRLE training

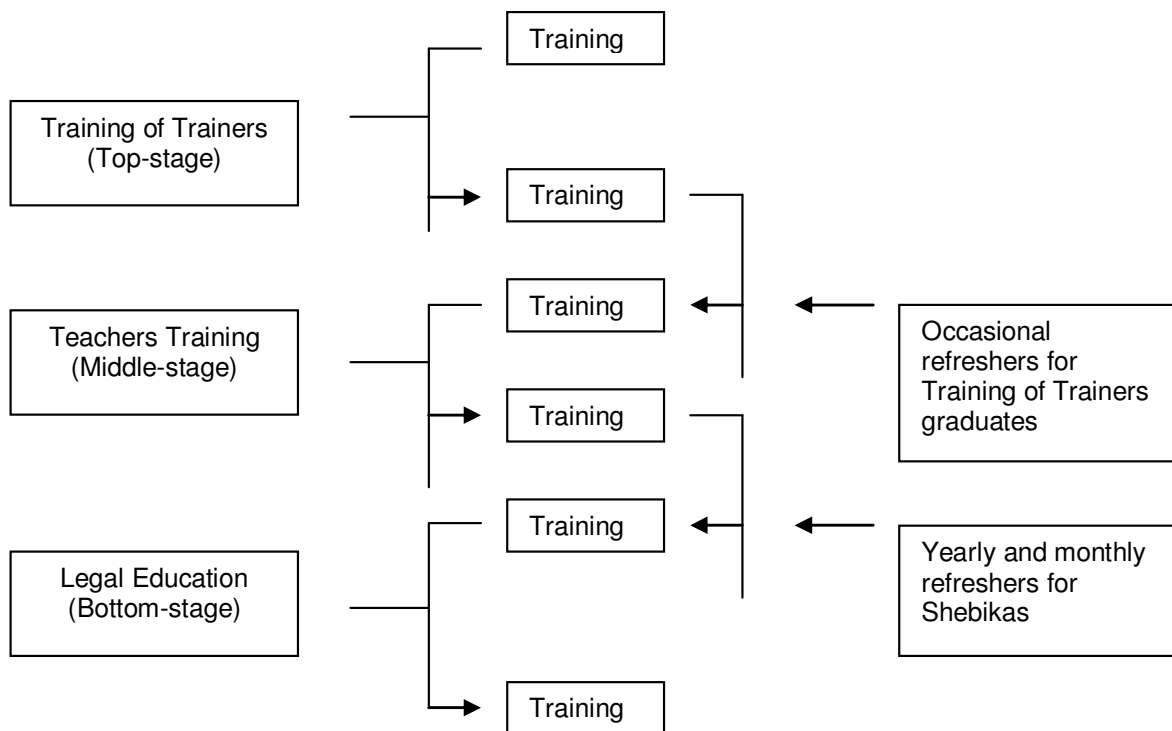


Figure 1. Human rights and legal education training cascade.

to empower the VO members through training about their human and legal rights, and on some essential laws so that they may implement such knowledge to their benefit (BRAC, 1995). The HRLE program is thought to be a fundamental building block for development and promoting civil society in rural Bangladesh.

The HRLE training curriculum can be grouped into four parts: Citizens' right protection law, Muslim family law, Muslim inheritance law and Land law. The parts together cover 22 legal issues unequally distributed among the Laws. In order to facilitate training to a larger audience at a lower cost and within a shorter period the training is offered through a cascade.

The HRLE training courses are offered through a hierarchical cascade having three stages (Figure 1). The first stage is Training of Trainers. The senior staff/trainers from HRLE program offer training to BRAC's training division staff, who in turn at the teachers training stage, offer training to selected VO members. These members are with a higher level of education than their counterparts in the VO. After graduating from the teachers training course they are called HRLE Shebika and conduct Legal education in the village for other VO members.

The training of trainers course runs for six days for a batch of 10 - 15 trainees. The teachers training

accommodates a maximum of 25 participants. The training has four parts, each having a six-day duration, conducted with a month's interval at BRAC training centers. The legal education comprising of 20 - 25 trainees runs for 28 days with a two-hour session daily. The training is conducted at the courtyard of a trainee and at a time convenient to the majority participating in the course.

All the three training are conducted by following elaborate and precise training modules providing little chance for training to be affected by instructor's personality. The modules besides standardizing the training ensure that the HRLE program objectives are represented and are transferred down uniformly within the cascade. Presently BRAC has two trainers conducting Training of Trainers, 25 trainers conducting teachers training and 2,391 Shebikas offering legal education to VO members. As of June 2003, 2.2 million VO members were offered legal education (BRAC 2003a).

HRLE cascade follows a structured top-down approach in training. Such a rigid system of training in a situation where context for which training is offered is changing can quickly place training courses within the cascade out of relevance (Rafe, 2003). This danger is reduced by making the cascade responsive to bottom-up learning.

HRLE cascade addresses the bottom-up approach by tuning itself to the feed-backs of the trainees at each stage of the cascade and the target group on whom the training is finally applied, and the recommendation of research findings. Based on the feedback from these sources the HRLE training cascade is modified whenever needed.

Theoretical framework for assessment of HRLE training

There are number of approaches available to evaluate training. Some of these are CIRO Approach (Warr and Rackham, 1970), the CIPP approach (Galvin, 1983) and the Kirkpatrick Approach (Kirkpatrick, 1983). Although worded differently, there are other approaches very much similar to Kirkpatrick's approach (Jackson and Kulp, 1979; Fitzenz, 1987; Gordon 1987). It is beyond the scope of this study to discuss these approaches in detail. None of these approaches focused on cascade. In fact, these approaches were developed to evaluate Human Resource Development training for business or industrial organizations; thus, failed to meet the impact assessment need of the training directed towards the development of NGO members in the rural setting. For example, Kirkpatrick's approach evaluated training at four levels – hierarchical in terms of training output. These are, reaction (the satisfaction with the program), learning (the knowledge and skill gained in the program), behavior (the changes brought in the behavior due to learning), and result (the improvement in the organization mainly expressed in cost saving, improvement in work output and quality of changes resulted in the organization due to training). The assessment of cost saving and improvement in work output as visualized by this approach in result level is not possible or relevant in the case of a training directed to bring change in a village or a society. To assess the impact of HRLE training courses it was also felt appropriate to do it at four impact levels, that is, extent of training, execution of training, content of training, and result of training. These interrelated impact levels are discussed below.

Extent of training

The extent of training refers to the scope of training. It has two components: duration and execution.

1. The duration of training: Up to a point, duration of training is likely to be positively associated with the gain in learning both in terms of quality and quantity. A simple assessment of the effectiveness of training may include the evaluation of total time spent in training and its distribution to different training activities.

The HRLE training activities can be divided into two

major categories:

a. The activities that 'directly' contribute to the gain in knowledge on laws, the development of skills in conducting training and in implementing the laws in relevant situation.

b. The activities that 'indirectly' contribute to the gain in knowledge on laws and in the development of the skills related to conducting training on the same, e.g., the lecture on the objectives and importance of HRLE training. Besides, the activity also includes the development of skills in implementing the laws in the relevant situation.

2. The training coverage: The larger the proportion of people with training within the group (that is, to whom the training is relevant) the more likely it is that there will be a bigger impact of training on the group provided there exists no constraint to the application of the learning from the training. This will be simply because there will be more people within the group to apply their learning and there will be diffusion of learning from the trained to those not trained. The effectiveness of this component depends on:

a. Proportion of the reference group who successfully completed the training.

b. Proportion of the reference group who partially completed the training.

Execution of training

Evaluation of the execution of training takes into account the effectiveness of the techniques applied in the training and the environment in which the training is conducted. It has two components

The training process: It refers to ways that 'directly' contribute to learning and gain in skill in training. Based on the following indicators the effectiveness of training process can be assessed:

a. Is it participatory? The extent to which the training provides the scope for participation of trainers and trainees in the training process and the nature of participation; the two-way communication is argued to be a more effective training process.

b. Is it amiable? The extent to which the training is carried out within a friendly environment, an environment which integrates trainees psychologically with the training process is amiable. Amiability is important in training as because under this process the deficiencies of the trainees can easily be detected by the trainer and accordingly the trainer could take necessary measures.

c. Is it understandable? The extent to which the training content is understandable.

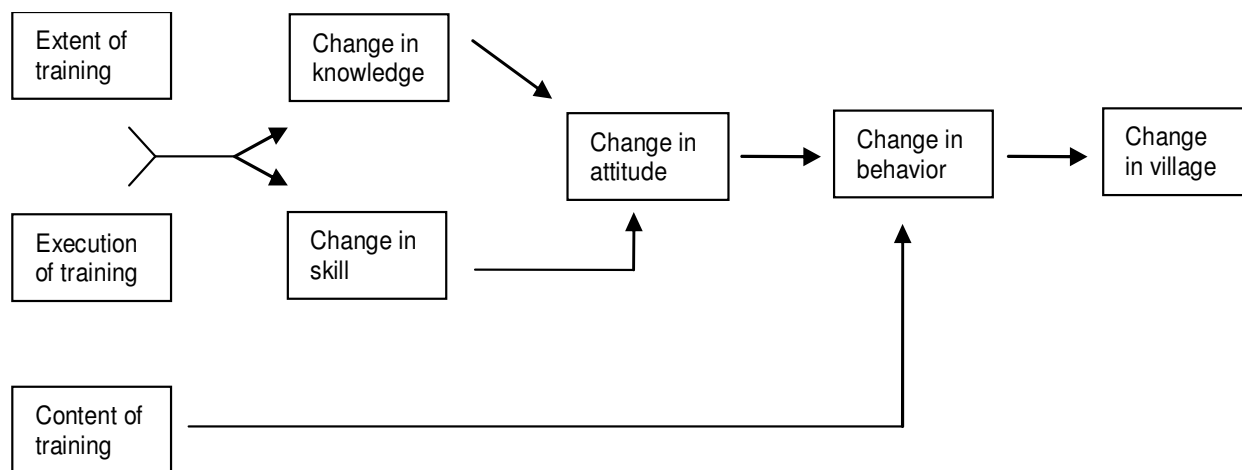


Figure 2. Impact assessment levels of training courses under Human rights and Legal education program.

The training environment: It refers to the quality of facilities and the resources available for conducting training.

The environment can be grouped into two:

- Facilities and resources having direct bearing on training, e.g., sound system in the classroom; and
- Facilities and resources having indirect bearing on training, e.g., the quality of meals served to the trainees.

It is logical that the indicators of training process and training environment will have a positive bearing on the quality of training in many instances.

Content of training

The content of training, as conceptualized by the trainee, determines the extent to which the training will be put into application - referring to the utility of training. There can be two types of conceptualization related to the content.

- The extent to which different parts of training was found easy or difficult in understanding and in internalizing (that is, make part of oneself, through learning and social adaptation). There will be a tendency in the trained to put that part of the training more in use which was found easy to understand, thus mastered well, than the part found difficult to understand and not mastered well.
- The extent to which different parts of training are considered significant by the trained. The part of the training considered more significant will have a higher probability of being applied than those considered less or not significant.

Result of training

Training intends to bring some changes in accordance to

the objectives set by it. There are five types of changes based on which the impact of training can be assessed (Phillips, 1991; Bhatnagar, 1987). These are changes in knowledge, skill, attitude, behavior and organization. Again the impact in relation to the objectives of training can be categorized into three (Bhatnagar, 1987):

- Positive impact - the training achieves the objective in part or in full.
- Neutral impact - there are no signs of impact due to training.
- Negative impact - the training producing an impact not desired.

The theoretical framework assumes that the training leads to learning (that is, gain in knowledge and skill). The trained attaches attitudes to the learning. The learning with positive attitude, in the absence of the constraints, will be implemented in the relevant situations (Ajzen and Fishbein, 1977, 1980). Such implementations in turn will lead to the change in the organization of the trained. In context to this study it is the change in the village. Figure 2 presents the relationships among the impact levels and the changes that HRLE program includes.

METHODOLOGY

As a strategy HRLE training courses were assessed in terms of the HRLE program objectives by following the theoretical framework in hand. Through this process an attempt was made to estimate how much value was added by each stages of the training. Besides, the study used quasi-experimentation to evaluate the extent the training was applied. For this, the extent the knowledge gained in the training applied by the experimental group (the group that received the treatment, that is, HRLE training) was compared with that of the control group (the group did not get the treatment).

Sampling

Samples used in this study can be divided into two broad

categories. Firstly, those involved in training - trainers and trainees were observed mainly to assess knowledge and skills gained in the training. Secondly, the female villagers, representing experimental and control groups, observed to assess the effect of HRLE-related knowledge (that is, knowledge gained in HRLE training) in the real world.

A training session, each for training of trainers, teachers training, and legal education, was randomly selected from the list of training scheduled for 1998. Next, all the trainees graduated from these training - 12 from Training of trainers, 21 from Teachers training, and 20 from Legal education; were observed.

Experimental group

Included VO members with Legal education. Altogether 75 VO members received legal education one year back, two years back, and three years back (25 members in each group) were selected from three villages under BRAC's field office in Titpallah. They were randomly selected from the list of VO members with legal education available at the office.

Control group

Two control groups were taken into consideration. First group included 75 VO members without Legal education. These VO members were randomly selected from three villages, with the help of a list of such members available at BRAC's field office in Chachua. Second group included 50 randomly selected females from a list developed through participatory rural appraisal in Uluhati - a village without any NGO intervention in Nandail district. The selection of samples in the control groups was made as such so that they might remain similar with the experimental group in terms of age, education, and economic status. These attributes were taken into consideration in selection as because they were likely to lead to the variation in HRLE-related knowledge other than the training.

Instruments and assessment strategy

Data were collected from BRAC documents and by operationalizing three processes or instruments - firsthand observation by the researchers, interview schedules and tests. Separate interview schedules were developed to make those appropriate for impact levels under training courses and, experimental and control groups. The questions in these sets were designed as such to receive structured and semi-structured responses, attitudes, and opinions. The assessment strategy for each stage is given below.

Extent of training

Data on coverage and duration of training under this level were derived from BRAC documents. Opinions of the trainees were taken to fathom how these factors have contributed to learning and development of skills in the trainees.

Execution of training

The evaluation of the level was done by observing training sessions and interviewing the trainers and the trainees involved therein. Structured observations were done to assess the extent the training sessions were participatory, amiable and understandable.

Content and relevance of training

At this level, the trainees provided structured responses on the issues under consideration and justifications for their responses.

RESULT

The result was assessed at three stages: gain in knowledge, gain in skill in conducting training, and extent HRLE-related action, that is, action induced by knowledge gained in Legal education, was conducted.

The gain in knowledge was assessed by an oral examination conducted for each individual. The trainers from teachers training and legal education courses were tested immediately before starting the courses to find out their competency in conducting the same. These tests were a part of training of trainers' course. Pre- and post-tests which were a part of training of trainers' course were used in this study. On the other hand, teachers training and legal education did not include any test; so tests were developed for these two courses. The difference in pre- and post-test scores provided an estimate on the gain in knowledge by the trainees.

Number of measures was taken to derive a more accurate test scores from teachers training and legal education courses. The test scores of the trainers conducting these courses were corrected for guessing (Bramley, 1986). To make a correct assessment of the learning from training, the influence of the intervening factors on test was controlled. The differences between pre- and post-test scores were t-tested. The percentage score and gain ratio were used to assess the changes in the level of knowledge because of the training (Newby, 1992, Bramley, 1986).

The assessment of the gain in skill in conducting training by the trainees from the teachers training courses was made by their trainers. These assessments were used in this study. Besides, the self-evaluation of the trainees on their capabilities and confidence in conducting training in future were also considered.

To assess the application of knowledge gained in the training in practical situation, the HRLE-related action of the experimental group was compared with the control groups. Information on HRLE-related action was tabbed from case studies. The respondents from both the groups reported the HRLE-related actions they conducted in the last 12 months. The reporting was first validated through consistency check of the information provided and through corroboration from other information sources. Next, the validated action was considered to be HRLE-related, provided a clear link could be established between the knowledge provided in legal education and the action. As a process of establishing the linkage between these two the HRLE-related knowledge of the groups was also tested as the presence of knowledge was a prerequisite for the relevant action.

FINDINGS

The findings of all the three training courses for each of the levels have been presented together. This has been done to avoid repetition in the presentation of same

finding for different training courses at each level.

Extent of training

Although the trainers and trainees were of similar age group they were not of same gender in all courses. On average, the trainees of training of trainers' course had 16 years of education compared to 6.5 and 0.1 years in the case of teachers training and legal education trainees, respectively. The trainees of training of the trainers were all experienced trainers as they conducted training for other BRAG programs in the past as against none of the trainees from teachers training with any teaching experience. Thus, in order to develop the skill for conducting courses in the training of trainers' trainees it was only necessary to tune up their existing skill to the needs of HRLE program but in the case of trainees from teachers training course, the skill had to be developed from the scratch. By responding to these realities, courses were structured for different durations. Similarly, the training activities that 'directly' and 'indirectly' contributed to learning received differential emphasis in terms of time allotted to them in these training courses.

Training of trainers

Altogether 51 h distributed, over six days were spent in learning and development of skill in the course. The trainees also spent number of hours each evening to prepare the lessons.

About 45% of the training time was spent on the dissemination of information on laws and in their clarification. In contrast, 6.4% of the time was allotted for the development of training skill. Rest of the time spent on issues 'directly' and 'indirectly' contributed to learning and skill development like review of lessons and pre- and post-tests. The distribution of time to different training activities emphasized a great deal on imparting legal information to the trainees.

Teachers training

Altogether 192 h were spent on Teachers training; of this, 56% of the time was spent on the activities 'directly' contributed to learning whereas the rest was spent on activities 'indirectly' contributed to the same.

The total training time was evenly allotted among the four laws; meaning that the distribution of time on four laws was not proportionate to the number of issues the laws contained. For example, Muslim Family Law having seven legal issues was allotted 18.5 h, whereas Muslim Inheritance Law having six legal issues and Land law having five issues were allotted 20 and 22 h, respectively. Similarly time allotted to activities 'directly' and 'indirectly' related to gain in knowledge and skill in conducting

training were not same for all laws.

Legal education

The legal education covering 56 h was equally divided over a 28 days period. This time period was distributed on two training activities. These were dissemination of information on laws and the review of the laws. About 79% (44 h) of the training time was spent on teaching laws. of this, 18% were allotted to Citizens' right protection law, 32% to Muslim family law, 27% to Muslim inheritance law and 23% to Land Law. These time allocations to different laws were roughly proportional to the number of legal issues the course covered. From classroom observation it appeared that the differential distribution of time in training was logical in response to the time needed in internalizing various training contents, and acquiring skill in conducting training.

All the trainees and even their trainer from training of trainers' course opined that the duration of training was a bit short for covering the course curriculum comfortably. In spite of the time constraints, most trainees (92%) mentioned that they managed to learn well because of having education they had and for having earlier experience in conducting training. In the case of teachers training and Legal Education, 95 and 85% of the trainees respectively were 'highly satisfied' or 'satisfied' with the duration of training and with the way time was allotted to different training activities.

In spite of some reservation of the trainees from training of trainers' course, it may be concluded that the planning of duration of training and the distribution of time amongst different training components have contributed positively to the effective learning of the trainees and in the development of their skill in conducting training.

Execution of training

Training process

A combination of techniques, that is, explanation, discussion, answering questions, and memorization, were followed to aid in the internalization of knowledge by the trainees. Memorization was done mostly after class in the evening. Skill in conducting training was developed mostly through role playing. The training, particularly on legal education, made an effort to develop a positive attitude towards the laws taught. It was done by setting examples indicating the advantages in following the laws and the disadvantages in not following.

Participation: Training courses offered by the NGOs have an implication for the pedagogical culture of Bangladesh. The culture is highly hierarchical where teachers are revered by believing that they are next to parents. Higher status of the teachers along with

Table 1. Level of satisfaction with selected aspects related to execution of training.

| Aspects | Not satisfied | Less satisfied | Satisfied | Highly satisfied |
|--------------------------------------|---------------|----------------|-----------|------------------|
| Training of trainers (n = 12) | | | | |
| Quality of training* | - | - | 33.4 | 66.6 |
| Number of trainers | - | 16.7 | 8.3 | 75.0 |
| Discipline in class | - | - | - | 100.0 |
| Training equipment | - | 16.7 | 33.3 | 50.0 |
| Teachers training (n = 21) | | | | |
| Quality of training* | - | - | 23.9 | 76.1 |
| Number of trainers | - | 9.5 | 28.6 | 61.9 |
| Discipline in class | - | 4.7 | 19.1 | 76.2 |
| Training equipment | - | 4.7 | 14.3 | 81.0 |
| Legal education (n = 20) | | | | |
| Quality of training* | - | 10.0 | 30.0 | 60.0 |
| Number of trainers | - | 15.0 | 40.0 | 45.0 |
| Discipline in class | 35.0 | 45.0 | 15.0 | 5.0 |
| Training equipment | 10.0 | 5.0 | 40.0 | 45.0 |

*Quality of training refers to cumulative score for participatory, amiability and understandability under training process. Rest of the indicators is on training environment.

unquestionable authority bestowed upon them develops fear and hesitation among the students towards the trainers. Such a psyche creates a distance between the teachers and the students which in turn impedes effective learning of the latter. Trainers are considered same like teachers. To remove the barrier HRLE trainings were designed in such a way so that there could be two-way communication between the trainer and the trainees. Besides, co-curricular activities involving both of them were often made part of the training to break the ice between the two.

It was observed that on an average; a trainee initiated interaction with the trainer 2.2 time and trainer initiated interaction with each of the trainees 1.3 times in a days training of trainers and teachers training sessions. Such participations helped the trainers to have an idea on the extent to which the laws were understood and learnt, and in turn helped them in taking measures to overcome the deficiencies of the trainees when needed. All trainees indicated that the trainees could ask questions to their trainers without hesitation, and they were always responded well. The trainees felt that the training was fully participatory and had helped them in learning. It was also reported that the process helped both the trainers and trainees to measure the extent to which the laws were understood and learnt.

Amiability: The trainees' relation with the trainer was congenial and fostered an effective training. The trainers did not impose any of their decision or belief on the trainees. The trainees from training of trainers' course

found their trainer friendly and cooperative. Consequently, the trainees were at home in discussing issues with the trainer and in asking question for clarification whenever felt necessary. The trainees of teachers training and legal education courses noted about their respect for trainers. Because of the respect, trainers' instructions were always followed and because of the friendship the trainees were not hesitant in pointing out their problems to the trainers. This combination of reverence and friendship helped the training processes immensely.

Understandability: Although 58% of the trainees of Training of Trainers' course found their course difficult, mainly because of the time constraints, all (92%) except one in the class opined that the course was fully understandable. In the case of teachers training and Legal Education, in general, the training was understandable to all, although some 9% of teachers training and 17% of legal education trainees mentioned about their difficulties in following the class at the initial stage of the course.

On the indicators of quality of training represented by participation, amiability, and understandability, at least 90% of the trainees were either 'satisfied' or 'highly satisfied' with these aspects in any of the training under consideration (Table 1).

Training environment

On average 83 and 90% of the trainees of training of

Table 2. Pre- and post-test Scores of trainees from training of trainers course (n = 12).

| Indicators | Score | |
|-------------------|----------|-----------|
| | Pre-test | Post-test |
| Correct | 3 | 83 |
| Partially correct | 23 | 16 |
| Wrong | 50 | 1 |
| Untouched | 24 | 0 |

Table 3. Average test scores of trainees from teachers training and legal education course.

| HRLE laws | Teachers training (n = 21) | | | Legal education (n = 20) | | |
|--------------------------------|----------------------------|-----------|------------|--------------------------|-----------|------------|
| | Pre-test | Post-test | Gain ratio | Pre-test | Post-test | Gain ratio |
| Citizens' right protection law | 41 | 86 | 75 | 33 | 77 | 66 |
| Muslim family law | 39 | 98 | 96 | 28 | 89 | 81 |
| Muslim inheritance law | 47 | 95 | 91 | 50 | 66 | 46 |
| Land law | 54 | 76 | 48 | 57 | 82 | 58 |

trainers and teachers training courses, respectively, were satisfied or highly satisfied with the aspects 'directly' affected the training, that is, 'number of trainers' and 'training equipments' (Table 1).

All trainees of the Training of Trainers and teachers training courses were 'highly satisfied' or 'satisfied' with the aspects 'indirectly' affected the quality of training like dining services, housing facilities and auditoriums. The evaluation based on these indicators however was not relevant for legal education course.

It may be concluded that the aspects of training process and training environment considered, in most cases, 'directly' and 'indirectly' contributed to the quality of all the training courses. For a training to be successful, more than 50% of the respondents had to rank all the indicators 'satisfactory' or 'highly satisfactory'. The cutoff point was decided by the Training Division based on its experience. It must be noted that all the indicators were not equally contributory to the success of the training nonetheless they were given equal weight to keep the analysis simple.

Content of training

The evaluation was conducted only on the trainees who attended legal education course; as because, they were to apply the knowledge thus their judgment was considered most significant. The trainees in legal education categorized the laws based on the extent these were considered useful and found easy to internalize. According to some trainees, more than one law was considered easy or difficult in internalization and more or less significant for application (Table 3).

The Citizens' right protection law was the least significant part of the course to 30% of the trainees. They felt that Citizens' Right Protection Law had a little chance for its application in their cases. In contrast, Muslim Family Law was considered very much relevant to daily life and most significant part of the course to 80% of the trainees. They felt that the implementation of Muslim family law (against multiple marriages and child marriages, which were widely practiced in the community) would improve lives of many women. On the other hand, the training on Land law was significant to some 30% of the trainees as it was felt that the law could come handy in dividing property amongst heirs and in resolving disputes related to inheritance.

The Muslim family law was the easiest in conceptualizing to most trainees (95%) as its content was thought to be very much related to their day to day life. On the other hand, Muslim Inheritance Law was most difficult to 40% of the trainees because the proportion of the property that different members in a family might legally inherit was difficult to understand and remember.

Result of training

Trainers and trainees participated in HRLE training

Change in knowledge: As mentioned earlier, both trainers and trainees were tested on the HRLE curriculum to find out whether trainer contributed to the gain in knowledge of the trainees and to assess the extent to which knowledge and skill of the trainees had changed due to the training.

Table 4. Selected traits relating to skills in conducting training of trainers participating in teachers training (% , n = 21).

| Traits | Excellent | Good | Average | Weak | Very weak |
|-----------------------------|-----------|--------------|---------|----------|-----------|
| Presentation skill | 9.1 | 54.5 | 27.3 | 9.1 | - |
| Chart demonstration ability | 7.1 | 7.1 | 28.8 | 49.9 | 7.1 |
| Consistency in discussion | 23.6 | 35.3 | 11.7 | 5.8 | 23.6 |
| Participation in discussion | 27.8 | 22.1 | 38.9 | 5.6 | 5.6 |
| Shyness | Not shy | Slightly shy | Shy | Very shy | |
| | 55.0 | 25.1 | 14.9 | 5.0 | |

Source: Document, HRLS Program.

Training of trainers: On an average, trainees scored 16.6 points out of 100 in the pre-test which rose to 90.6 in the post-test. Number of questions answered 'correctly' by the trainees in the post-test was considerably higher than that in the pre-test (Table 2). In contrast number of questions answered 'wrong' or left 'untouched' decreased in a similar fashion in post-test compared to pre-test. These findings along with the change in average test score between pre- and post-tests indicate that the HRLE-related knowledge of the trainees increased considerably due to training.

Teachers training: The trainer conducted the teachers training; scored 97 out of 100, which after the correction for guessing was 94%. On the other hand, the trainees from the same course answered 45% of the questions correctly in the pre-test which rose to 89% in the post-test (t-test, $p < 0.001$). This indicates a net gain of 44% in the score. The overall mean gain ratio between pre- and post-tests was 84%.

Table 3 presents the average pre- and post-test scores of different laws separately. The t-tests on pre- and post-test scores for the laws indicate that the mean scores were different from each other ($p < 0.001$). The trainees made a maximum gain in knowledge of 59% for Muslim Family Law, and minimum gain of 22% for Land Law. It appears that the trainees were well informed about Land Law even before their participation in the training as they responded 54% of the questions correctly from this part in the pre-test. The mean gain ratios calculated separately for laws indicates that a satisfactory level of learning was achieved in all laws but Land Law as the gain was only 48 out of hundred. Scores less than 50% was considered not satisfactory.

Legal education: The legal education trainer scored 100% in the test, thus was in an excellent position to train the trainees. On the other hand, her trainees had 39% of the responses correct in the pre-test but they scored 79% in the post-test (t-test, $p < 0.001$). The mean gain ratio between pre- and post-test was 68%. The mean post-test scores were also higher than that of the post-tests for all laws (t-test, $p < 0.001$) (Table 3). The net gain in the knowledge due to the training was most for Muslim family

law and least for Muslim inheritance law. The mean gain ratios indicate that the trainees learnt considerably in all laws but in the case of Muslim inheritance law, the ratio (46%) was slightly under 50%.

The trainees from all courses confirmed that they were not exposed to any source contributing to their learning similar to HRLE training curriculums during training. Thus, the gain in the learning may fully be attributed to the training they received. Although the ratios indicated that the level of learning for Land law in the case of teachers training and Muslim Inheritance Law in the case of legal education were a bit less satisfactory, but as a whole, all the training courses were sufficiently effective in bringing changes in the level of HRLE related knowledge of the trainees.

Change in skill in conducting training

The trainers from training of trainers' course evaluated the trainees' skill in conducting training in terms of selected traits on a five/four point Likert scale (Table 4). Other than 'chart demonstration ability', majority of the trainees were ranked above 'average' or 'shy' in terms of their performance in training. In the case of chart demonstration, 28.8 and 49.9% of the respondents were ranked 'average' or 'weak'. In spite of such ranking the trainers felt that the skill acquired by the trainees in conducting training were above satisfactory for all the trainees. Such an evaluation of the trainees matched with the self-evaluation on the anticipated capacity in conducting training in future. Seventy-six percent of the trainees were fully confident in conducting legal education course effectively from the very first course they would conduct, whereas the rest believed that they would be in similar position very shortly after they would start conducting the same course. The reasons for having such a high confidence was that the trainees believed that they had clearly understood and completely internalized the laws taught in the training and their rehearsal in conducting training was sufficient and satisfactory.

It must be noted that an evaluation on the development of skill in conducting training by the trainees attending

Table 5. Test scores of selected groups by laws (%).

| Laws | Control group | | Experimental group |
|--------------------------------|---------------|------------|--------------------|
| | without BRAC | Without LE | With LE |
| Citizens' right protection law | 30 | 32 | 43 |
| Muslim family law | 33 | 41 | 55 |
| Muslim inheritance law | 47 | 49 | 59 |
| Land law | 48 | 57 | 65 |
| N | 50 | 75 | 75 |

training of trainers course was not done.

Attitude developed from legal education

The legal education graduates expressed a strong desire to apply their learning whenever possible. About 90% of the trainees intended to apply Muslim family law against 30% for Muslim inheritance law, 25% for Citizens' right protection law and 15% for Land law. The application of Laws was intended through three processes: (1) By not violating the laws themselves; (2) In the attempted or actual breach of these laws, the person involved in would be informed of the breach; and (3) By applying HRLE-related knowledge in the solution of problems. These tendencies indicated the development of a positive attitude towards issues covered in Legal Education.

Experimental and control groups

HRLE-related knowledge

The mean test score of the VO members received legal education 1 - 3 years back (that is, experimental group) was 56%; same scores for control groups, that is, VO members without legal education and villagers from non-BRAC village, were 44.8 and 39.5% respectively (t-test, $p < 0.0001$) (Table 5). It must be mentioned that the test scores of VO members who received legal education 1 - 3 years back was lower than that of those graduated recently (that is, 79%); as because the HRLE-related knowledge of the VO members received legal education 1 - 3 years back lapsed with time.

HRLE-related attitude

The VO members with legal education expressed full commitment in making efforts in applying HRLE-related knowledge in the appropriate situations that they would come across. Some even mentioned that they were ready to make such efforts even if they would have to incur losses. These tendencies were in line with the attitude developed in the case of recent legal education graduates, discussed earlier. In contrast, similar

assertiveness in applying legal knowledge was not observed in the case of VO members without legal education and the villagers from non-BRAC village.

HRLE-related action

the case studies revealed that within a year, 61% of the VO members with legal education conducted HRLE-related actions as compared to only 12 and 4% by the VO members without legal education and the villagers from non-BRAC village, respectively. Altogether 59 HRLE-related actions were conducted by the VO members with legal education compared to only nine by the VO members without legal education and only two by the villagers from non-BRAC village (Table 4). When the actions conducted were grouped in terms of legal areas in the case of VO members with legal education it was observed that 72% of the actions were concerned with Muslim Family Law. of the actions conducted by the VO members with legal education 73% came out successful, that is, action produced result as desired by the implementers.

DISCUSSION AND CONCLUSION

In assessing the effectiveness of training, the study focused into three distinct issues. Firstly, the evaluation of the mechanism that led to the gain in learning and factors that hinders or facilitates the transfer of learning from one impact level to the next, that is, the process. Secondly, the assessment of the actual gain in learning from training, that is, the output. Finally, the assessment of the changes brought about by the application of learning, that is, the outcome/impact.

The theoretical framework adopted for assessment assumed that the knowledge was a commodity that could be transferred from one person to another - transfer of knowledge/technology paradigm. The approach gave least attention on the extent cultural and social factors facilitated or impeded transfer of knowledge and skill within the cascade. The issue is significant in assessment when knowledge and skill is transferred from one to another cultural group, not relevant in the case of cascade in hand. The training content dealt in the

cascade generated from and was uniformly relevant to all trainers and trainees involved in the cascade as they all shared same culture.

Validity

A portion of the qualitative data used for assessment was derived from the observation of the research team, and attitudes and opinions of the respondents. Data from these two sources were used independently, to complement each other and in triangulation. Conclusion based on such data in this study did not make it less reliable for number of reasons. Firstly, the observation of the researchers matched with attitude/opinion of the trainers and trainees thus validated the data derived from both sources. Secondly, the trainers or trainees were not given any impression that their performances were being evaluated. Thus their behaviors were not influenced due to the presence of researchers in the classroom. As because the researchers were present in the venue throughout the training courses, within a short while they were accepted as part of the class. The trainers neither tried to hide their real form from the researchers nor it was possible on their part to do so through out the training. Thirdly, although the trainees addressed the trainers as brothers or sisters, such reverence did not influence the trainees to become less critical about the course they participated or the performance of their trainers or the training session while responding to the research team. As observed, the trainers who mentioned that they were highly satisfied with the duration of training did not opined similarly about other aspect of the training in all instances, e.g., allocation of time to different training activities. Fourthly, the interviewees provided quality information to this study as because the interviewers were not part of HRLE program and the identity of the interviewees were kept anonymous. Finally, several studies indicate that attitude/opinion reflects reality (Ajzen and Fishbein, 1980; Sherif and Cantril, 1947).

Finding

In spite of incomparability of the test scores from Training of Trainers with teachers training and legal education because of the difference in exams it might be mentioned that the observed trainer for training of trainers' course successfully transferred his learning to the trainees. Similarly the observed graduate of the Training of Trainers' course was also successful as a trainer in transferring her knowledge to the trainees of teachers training course, had it not been the case the trainees from teachers training would not have performed better in the post-test.

The mean post-test scores for teachers training and legal education were 89% and 79%, respectively - less than the corresponding trainers. This difference might

superficially indicate that there was a loss of learning in the process of transferring the knowledge from teachers training to Legal Education. Three observations may be sighted in refuting the assumption that HRLE cascade was ineffective in transferring knowledge from one to another level.

- i. The mean gain ratios indicate that trainees of teachers training course scored higher than legal education trainees for Citizens' right protection law, Muslim family law and Muslim inheritance law, but reverse was the trend for Land law. Had there been a loss of learning due to use of cascade there would have been a uniform trend for all laws between these two groups but that was not the case.
- ii. Had there been a problem in transferring knowledge due to inherent weakness of the cascade there should also have been some similarities in the case of questions answered correctly and incorrectly by the trainers and their trainees in teachers training and legal education courses. Such a trend was not observed.

The trainees of teachers training had more schooling (6.5 years) than the Legal education trainees (0.1 year). It was argued that the higher education of the former group had helped it in internalizing training better and in coming up with a higher scores than the latter in the post-test. Thus, it might be inferred that performance of both the groups would have become similar if they were with same level of education.

Findings indicated that the decision of legal education graduates to apply different laws were not same in all cases. This was because the decision to apply particular law was influenced by the incidence relating to law respondents or somebody close to them have experienced and was observed to have been happening frequently. The constraints and difficulties would have to face in applying the laws were also factors influenced the decision.

The legal education also helped in developing a positive attitude towards the knowledge imparted. Such an attribute had psychologically encouraged and advanced the HRLE graduates to implement learning in available opportunities. In reality this group was prompt in conducting HRLE-related actions. As a whole the training had a positive impact as it conformed to the objectives of the HRLE program. In this context it must be mentioned that such actions by HRLE graduates was not affected by their association with BRAC. As it was BRAC's policy to equip the members with training but not to involve themselves or induce VO members to take HRLE-related action.

The Laws learnt were not applied equally by the VO members with Legal Education. It appears that the trainees' evaluation of the Content of Training had some association with the desire to apply different Laws and the implementation of the same in real situation. For example, the Muslim Family Law was considered to be

the most relevant and easiest part of the training and was implemented most. It must be mentioned that the poor villagers were infested with problems more related to Family Laws than other Laws.

On training coverage, a significant portion of the VO members in the village received legal education thus a tremendous potential for achieving the objectives of the program was created. The respondents believed that there were changes in their village due to legal education offered therein. Such an opinion of the respondents should be accepted with caution. As because the observed changes might be due to factor other than the legal education which the respondent might not have been aware of. Change in the village due to legal education can be assessed best in a study exclusively designed for this.

The extent and execution of training were fully supportive in producing a desired level of learning in the training of trainers' course. Consequently compared to pre-test trainees performed considerably better in the post-test. Also they were sufficiently prepared in conducting training at the teachers training level. The trainer at teachers training level was fully competent to conduct training. The training environment and execution of Training over here were also up to the standard to produce quality graduates. These graduates performed excellent in the test and were also skilled to conduct training at next lower stage - legal education. As trainer in the legal education course the graduates proved no less competent than counterparts at higher stages. The extent and execution of training as observed in the course were highly satisfactory in general and produced legal education graduates with excellent performance. These graduates were not only equipped with HRLE related knowledge but also were sufficiently skilled and were with positive attitude to use those in appropriate situation.

Two factors inherent in the HRLE cascade significantly complemented to the success of the training courses. Firstly, courses were conducted based on modules. These modules standardized the training process and facilitated effective transmission of knowledge and skills from the trainer to the trainees. Secondly, regular refresher courses for the trainers kept their knowledge up to date as needed for conducting training (Figure 1). Although cascade appeared to be quite effective in HRLE program the mechanisms might not be equally effective in all training initiatives. It must be kept in mind that depending upon a variety of factors, e.g., nature of course content; mechanism can be differentially effective in training.

To the best of our knowledge an assessment of the effectiveness of cascade dealing with social issues has not been done in the past. of course investigation of the cascades in other NGOs provided us with insights particularly in relation to their management. Number of cascades jointly managed by NGOs suffered from lack of management and quality control as they were not

accountable to each other. Compared to other NGOs BRAC's cascade appeared to be outstanding in terms of updating its modules based on feedbacks. The HRLE training modules were also found to be more precise and detail aiming at maximum and exact transfer of knowledge and skills from one level to the next.

Problems

The finding, HRLE knowledge of the trainees decreased with time, confirms the earlier finding that the NGO members quickly memorize and then forget the training (Hashemi, 1990). Of course, forgetting the training is a loss of resource and an obstacle in achieving the NGO objectives. But, in the case of HRLE training loss of knowledge was not a big hindrance in the application of the training as the implementation, in most cases, were done by the trained in group. The group members compensate each others with their knowledge in the application of the training; as a result, the loss of knowledge is made up in the group effort and the implementation of training becomes complete and correct (Rafi et al., 1997).

Although this study came up with ample evidence of successful application of HRLE training there are also studies indicating acceptance of dowry and child marriage are in the increase in Bangladesh. This is probably because these practices have a strong economic motive overpowering the effect of the attitudes developed from the knowledge against the practices of dowry and child marriage from the training. Such an example, of course raises question whether classroom training on laws was alone sufficient to bring changes and/or, institutions and culture should also be changed to stop the practices. No doubt training can have a bearing on social change, as it happened in the case of village in hand. The issue can be best addressed by a separate study.

The importance of training to NGO in turn justifies the need for research on training as it facilitates the improvement of the quality of training and in assessing its impact. According to Newby (1992) the assessment of the impact of training is important for two important reasons. Firstly, it helps in identifying the unsuccessful element of the training thus facilitating in taking necessary measures to make it more effective. Secondly, it justifies the decision of the policy makers whether the training should be continued or not. of course, the assessment of the impact of training is a difficult task as it is always hard to make a precise quantitative measurement of such an impact and differentiate the impact of training from that of the confounding factors (Phillip 1993).

The research, besides assessing the effectiveness of HRLE training and cascade indicates that a methodology to assess the impact of the training directed towards

bringing changes in the society can be developed. The framework developed in this study can be further improved for precise assessment of the impact of training on other aspects of rural development. The demonstration of such techniques can be addressed best in another study.

REFERENCES

- Ajzen I, Martin F (1977). Attitude behavior relationship: A theoretical analysis and review of empirical research. *Psychological Bulletin* 84 (5): 888-918.
- Ajzen I, Martin F (1980). Understanding attitude and predicting social behavior. New Jersey: Prentice-Hall Inc.
- Alan W (eds.) The role of NGOs: charity and empowerment. *The Annals of the American Academy of Political and Social Sciences* 554: 33-45.
- Arens J, Van BJ (1985). Jhagrapur. Dhaka: Gonaparakashani.
- BBS (1992). Bangladesh population census 1991, Zela series: Jamalpur. Dhaka: Bangladesh Bureau of Statistics, Statistical Division, Ministry of Planning.
- Bhatnagar OP (1987). Evaluation methodology for training theory and practice. New Delhi: Oxford and IBH Publishing.
- BRAC (2001). Program at a glance, Dhaka: Publication Affairs and Communication, BRAC.
- BRAC (2003a). Program at a glance, Dhaka: Publication Affairs and Communication, BRAC.
- BRAC (2003b). BRAC annual report 1999. Dhaka: BRAC Public Affairs and Communication Department.
- BRAC (2000a). BRAG annual report 1999. Dhaka: BRAC Public Affairs and Communication Department.
- BRAC (2000b). Annual report 1999: BRAC Training Division. Dhaka: Training Division, BRAC.
- BRAC (1995). RDP operations manual. Dhaka: BRAC printers.
- Bramley P (1986). Evaluation of training: a practical guide. London: BACIE.
- Fitz-enz J (1991). ASPA/Saratoga institute human resource effectiveness survey: 1990 annual report. Saratoga, CA: Saratoga Institute.
- Galvin JG (1983). What can trainers learn from educators about evaluating management training? *Training Dev. J.* 52 (August).
- Gordon J (1987). Romancing the bottom line. *Training* (June): 31-42.
- Galagan P. (1990). David T. Kearns: a CEO's view of training. *Training Dev.* 44(5): 41-50.
- Hashemi S (1990). NGOs in Bangladesh: Development alternative or alternative rhetoric. Mimeo. Manchester: Institute of Development Policy and Management, University of Manchester, UK.