Reorganizing Degree Courses for

Improvement of Teaching

Prof. M. Shamsul Huq

in a discipline is sufficlent for the first appointment as a teacher in an institution of higher education in our country. Merit is the only criterion for such an appointment and research publication is treated as additional qualification.

For further promotions of such a scholar higher degree such as M Phil and Ph D with good research publications is required. But the transmission of his scholarship and research to the next generation is of secondary importance.

If a scholar can communicate his knowledge to the students effectively and efficiently and the students derive benefit out of that, then no doubt he is said to be a good teacher. But if one fails to do so then also it does not matter much and no discrimination is made in respect of his promotion.

The traditional belief is that a good teacher is born, not made and the skepticism about whether one can learn anything useful from others in respect of teaching methods still persists.

### **Teaching models**

In Bangladesh teachers are guided by the laid down syllaby. "What to be taught" is uppermost in their minds. Some give stress on the informations to be delivered whereas others give more attention to the skills, in particular to the pattern of analytical skills, the student must acquire. In this system the subject and the teacher dominate teaching. learning and assessing the student. Students play the second fiddle here. In other words this is a teacher-subject based system.

What a student will receive from attending the class depends on a common view of the subject as perceived by the teacher in each subject area. The content (comprising facts, concepts, models and theories) dominates the discipline and it is this content that is supposed to be conveyed effectively and efficiently by the teacher and a student is expected to absorb a set of facts, concepts, theories or skills. In the process he or she is also learning what to think and to

behave like a subject specialist. The students in general are assessed through three or four examinations. Of course there are some exceptions.

This subject teacher centred model has worked well in different countries of the world for quite some time. Bangladesh was no exception to this general rule. While other countries, specially ad vanced ones, have been trying different new models and achieving success, we are more or less sticking to this old system of teaching and learning. On the top of that the devotion needed to derive benefit out of the prevailing system is also fading out to a great extent.

The latest text-books written in English are not in general used. In the process of making Bengali as the medium of instruction. English has which solutions are already been pushed to the background. The books written in Bengali under the auspices of Bangla Academy are neither properly assessed, nor well circulated. Instead, some books written in the form of questions and answers are available in the market and for obvious reasons are popular with the students. Some teachers also encourage this spoon feeding type of teaching and learning. As a result standard of education has been falling at an alarming rate for quite some time.

In advanced countries along with subject-centred model of teaching and learning, many more models are being tried such as problem-centred, student-centred and technologycentred.

### Problem centred model

In problem-centred ap-

proach stresses are given on learning by doing and working as closely as possible with real problems. The problem-cen tred approach meets, to some extent, the demands from industry, commerce and the professions which need skills.

In the existing curricula and syllabuses of Vocational Science and technology educa tion there are provisions for laboratory and workshop practices. But they are very often

highly formalized and devoted

to solving set problems for

available. In law and com

merce there are case studies

and in social science also there

are some project works involv-

ing some problems

Everywhere stereotype pro-

cess is practiced whereas in

practical life one needs to have

"coping knowledge" to deal

with pressures and contradic-

tions experienced at work

Work in community, in ships

and offices, in factories and

fields calls for presence of

mind and wide field experi-

ences. Thus syllabus with

problem-centred model should

constitute a part of the rele-

vant courses in higher studies.

Student centred model

dent-centred system which of

fers a challenge to subject

teacher dominated system.

Here emphasis is given on the

process of learning, the

cards have been used often

has shifted from alphabet

recognition to key works of vi-

tal interest to the learner.

The focus of literacy now

along with a Primer.

Another approach is stu

learner and the learning group rather than upon teacher and subject. The system claims that adult thinking can be extended beyond formal operational process related to a set ensemble of knowledge, to a new stage at which learners become aware of their potential to originate their own thinking and felling. Adults are more likely to learn if their motivation stems from a perceived learning need. Once

Up to graduation level the aim of education should be to make a student more or less

tion will be self-directed. The

most appropriate learning op-

portunities will be those in

which learners are encouraged

to tap their own experience

Group studies

studies. It stresses the need

for cooperation. Academic dis-

cussions among the fellow stu-

dents have shown an increased

interest among the students

who are willing to take re-

sponsibility for their own

progress. This emanates from

the idea that close collabora-

tion among the students could

promote independent think-

ing. This is a positive shift

from the traditional motion of

the student as a passive

learner. Of course the success

of this model depends upon

joint planning of courses and

syllabuses by teachers and stu-

dents. Teaching would tend to

focus upon activities involving

Another approach is group

and to reflect upon it.

discussions and critical appraisal (through peer group learning, seminars, tutorials etc), self-generated inquiry, the conscious incorporation of experience into the learning process.

### Educational technology

On visual aids, televisions computers and programmed learning and similar other ed ucational technologies considerable sums were spent in the

an allrounder and not subject specialist. These students after graduation will be capable enough to go for different jobs and entrepreneurship ..... only those who can obtain marks above a certain specified limit may go for masters and still higher established, students motiva-1960s. But since then a grad-

ual change has taken place and

many more sophisticated

teaching tools entered the

class rooms. But their suitabil-

ity in improving the quality of education is still being debated by the educational technologists. Bangladesh has not as yet entered effectively in this field. In Bangladesh we should

wait till we get clear signal from education technologists indicating that it is more profitable and effective system in comparison to the other systems. Also we should consider whether our economy permits that. Again it requires motivation of our teachers and the taught.

Advanced countries have been trying for quite some time to bring about changes in teaching and learning system by introducing newer and varied methods with the aim of improving teaching in higher education. But we in Bangladesh have been sticking to age-old stereotype system based on teacher-subject method. Here also as mentioned above we are not deriving benefit from its good side. Rather we are encouraging using books which contain questions and answers and not subject matter in detail and even copying in examinations is also being encouraged. In other words we are producing "parrots" in place of well-edu-

cated young men and women. Against this background we are to consider the question of improvement of teaching in higher education Bangladesh. In this respect it is thought that no one model may suit our educational system, rather a mixture of some of them may yield a good result. Along with subjectteacher centred system, some courses or part of courses may be developed to contain problem-centred and student-centred topics. Group study should also be encouraged.

For this on the one hand our curricula and syllabuses need to be reorganized and on the other hand the teachers should be motivated and trained to conduct such courses. By training I mean 'endrogogy' (the education of adult) rather than 'pedagogy' (the education of children). The reason for this is that the adult thinking can be extended beyond prescribed syllabuses to a new stage at which learners become aware of their potential to originate and synthesize their own thinking and feeling. Most profitable approach will be to encourage the students to tap their own experience and to reflect upon it. That is why we suggest that stress must be given teacher-education and their

motivations. Otherwist improvement of teaching in higher education will be a far

### Degree courses

Next comes the question of

reorganization of degree courses. After twelve years of schooling students in our country go for higher education. In general education there are two-year degree courses in Arts and Humanities, in Social Science and in Science and Biological Science. These two-year (pass) degree courses are being offered in the colleges. In addition, there are three-year honours courses. These courses are being taught mostly in the general universities and also in some colleges. There is generally one final examination at the end of three years and this determines the result. In the universities there are also systems of having examinations at the end of each year. The results of all the three examinations taken together determine the merit of the students. There is also course system in the universities having more than one examination in a year. These indicate that there is no uniform system in the country Here in teaching everybody follows teacher-subject model. There is no innovation whatso-

In this connection my suggestion is that there should be one three-year degree course, and no separate pass and honours degree courses. Students should be admitted to the institutions not to a department of specialization. Institutions should have some general courses such as English, Bengali compulsory

students of Science Faculty(s) should take one or two courses in subjects like Philosophy and Economics whereas students of Arts and Social Science, Law and Commerce Faculties shall study one or two courses of general science and technology. In other words students should be required to study interdisciplinary courses in the last year and part of the second year classes along with some courses assigned by the Faculty concerned. By the time students are promoted to the second year class they may be in a position to select a subject or subjects of his or her liking for specialization. This means that during part of the second year and whole of the third year they can make specialized studies in a subject or subjects.

for all students. In addition

Here the model in my mind, as mentioned above, is a mixture of teacher-subject centred, problem-centred and student-centred systems. The idea is to make a student aware of what is happening around, so that he can cope in a real situation. Up to graduation level the aim of education should be to make a student more or less an allrounder and not subject specialist. These students after graduation will be capable enough to go for different jobs and entrepreneurship. Students who can obtain high marks in a subject(s) may be awarded honours and only those who can obtain marks above a certain specified limit may go for master and still higher degrees. It is to be remembered that subject specialization and higher degree are needed for teaching and research. Hence only brilliant students should be encouraged to go for higher degrees. In the fields of Agriculture,

Medicine and Engineering present structure may continue. But the emphasis should be shifted towards the mixed system as suggested above and both teachers and students are to be trained and motivated accordingly.

The writer is the Chairman of the University Grants Commission (UGC). The paper was presented at a seminar on higher education held in Dhaka recently.

# Developing Post Literacy Materials

Prof. S.M. Saifuddin

People who have acquired basic literacy skills through primary education or through literacy classes are called neoliterates. While they have attained some degree of literacy skills, they are likely to relapse into illiteracy unless some apcontent and letter size. propriate follow up education

is provided for them. There are 3 categories of neo-literates: Neo-literates who have limited literacy skills and those who need guidance to use learning materials and need simple reading materials are at the Beginning Level' Neo-literates who can read interesting stories, newspapers and songs by themselves and try to understand them fall at the 'Middle Level'. Then there is a 'Self Learning Level'. Neoliterates who can study books and newspapers independently and who are willing to go to libraries and other places in search of reading materials be-

### long to this level. Producing materials

The production of reading materials for people who have acquired basic literacy is still a neglected area in Bangladesh. Materials that assist writing and numeracy are even less common. Although the need for post-literacy materials has long been recognised but the production of such materials is still insufficient. Neo-literates continue to face great difficulty finding printed materials that they can read with interest and case. Available materials are unable to meet the demands of target groups in terms of suitable format and content.

The materials we have now in use not been properly distributed to remote areas. There are many drawbacks of these materials which are as follows: They do not attract neo-literates' interest. With an unsuitable format their contents are not interesting and are too complicated to adopt for daily life. The language and illustrations can not convey clear understanding to target groups.

To develop effective learning materials for post-literacy programme, the following criteria should be taken into consideration: a) The adults have more ability to learn and think and to make decision since they have more experience than children. Therefore, the planner should not limit to only one way presentation. The adult learners should be given opportunity to think, raise questions and make decision themselves.

b) Materials will be very effective if they are written and produced according to the groups. Writing for nco-literates require special treatment in matters like vocabulary,

Besides, there may be some

needs and nature of the target-

The procedure The first steps for the deother principles which the velopment and production of planner should take into con



sideration. These are costs of production, variety of media selection, visibility of the media among others.

Preparation, layout, reproduction of texts and illustrations are major tasks involved in the design of materials for adult learners. Each of these tasks require clear understanding of the aims and methodology of the programme.

In many countries, a Primer, consisting of elementary and post-elementary sections uptil now appeared to be the most popular. Formats such as posters, chart, flash

neo-literates is to collect and analyse the data concerning problems and needs of the target group. Identification of the problems and the needs of the target group is important because the materials prepared should be based and linked with learner's problems and needs to help them to improve quality of life. The materials should be prepared to help the illiterates or neo-literates in the village to fulfill their needs

and solve their problems. The key steps of the procedure in developing post-litermaterials are : a) Identification of problems and

#### testing, e) Revision, and f) Production. Format

needs, b) Selection of prob-

lems and needs on a priority

basis, c) Draft writing, d) Field

The format of the post-lit eracy material must be appropriate and effective for the

content. Possible formates are: 1) Printed book, booklet; 2) Printed non-book poster, leaslet, wall newspaper, news

periodicals and journals, flip chart, flash card: 3) Electronic films, movies,

4) Non-book slides, radio

and T.V. Programmes. It is only recently that postliteracy programmes have begun to develop in Bangladesh.

To many of us there was no clear definition of what a postliteracy programme could and should be. And once the adults had learnt to read and write, many of us thought that our job was over and then we turned to other groups.

Certainly there were some rare newspapers and booklets written in the language of literacy. But these were too sporadic in appearance and their overly ambitious objectives made the ill suited to the needs of neo-literate. Content

To make the literacy programme meaningful the adult learner should be given such learning materials as are based on his interest and environment. They would feel interested in the folk-tales and folk songs prevalent in their localities. Even today the interests of the adult learners for whom we are designing materials should form the central theme.

. There are three important components in the process of adult education. These are: (a) the adult learners, (b) the instructor and (C) the materials. The instructor is a link between the learner and the written work. If the link is weak the entire fabric becomes shaky.

The instructor should be able to use his own resources and intelligence for preparing his own materials in whatever shape his adult learners require them. He can prepare wall-newspapers. He can make suitable charts and poster, write news-sheets and even make use of the cuttings from the magazines, if necessary.

Unfortunately we don't have much really competent, and strongly motivated teachers for our adult literacy programme. Available materials

in the country can be divided into two categories: 1) Literacy materials for illiterates: 2) Post-literacy materials for neoliterates.

At present different government and non-government organisation are striving to eradicate illiteracy. The major organisations are: The Mass Education Programme of the Ministry of Education, BRAC (Bangladesh Rural Advancement Committee), BLS, Dhaka Ahsania Mission, VERC, Swanirvar Bangladesh, Jagoroni Chakra, BACE, FIVDB, DANIDA, RDRS and Masjid

Each of the above men tioned organisations has tried to develop the learning materials on their own for adult literacy. Some of the organisations have produced a lot of follow up materials. No need assessment survey appears to have been conducted to meet the requirements of the clientele group. In literacy classes the age of learners ranges from 8-45 years. It is needless to say that same book prepared for all the age-groups cannot suffice to meet the requirements of all. They carry different life experiences with them. Their learning capacity may be dif-

Objectives of learning have not been taken into account properly in most of the cases.

Similarly procedure of developing literacy materials has been ignored to some extent. There is no indication anywhere that needs were identified, draft was tested in the field and in the light of field tests any revision was recommended. The whole job appears to be left at the mercy of expert views.

### Systematic approach

As a matter of fact the process of development of postliteracy material requires a systematic approach. The new approach to post-literacy pursues the following objectives: a) Objectives of the learning materials should be clearly de-

b) Personnel responsible for the development of post literacy material should be aware of the learning behaviour of the adults and neo-literates. c) Characteristics of the fol-

low up materials should be made clear to the writers. d) Proper procedure should be adopted in developing the post-literacy materials.

e) Printed materials should be duly supplemented with pictures and diagrams. Finally we must be careful that we should not only pro-

duce learning materials but also make arrangement that they are being used in the field. After the production of materials we have to train the teachers, supervisors and other personnel on how to use them to achieve learning objectives.

The writer is the Executive Director, Mass Education Programme the Literacy materials available Government.

## China's Students Switching on to Computers computers went on the market

BELJING: Wang Rei is a 7th grader at the Beijing No. School for deaf-Mutes. She has discovered the magic of com-

puters. Looking attentively at the, maths questions on a computer screen, she busily touched the keys that indicated her solutions and got excited when the computer approved of them.

The computer can help to strengthen my understanding of what I,ve learned," the girl expresses herself enthusiastically in sign language. "It's just like a teacher before me."

Like Wang Rei, a growing number of Beijing's 1.4 million primary and high schools students are benefitting from the municipal government's programme to increase computer literacy among youths. Only five years ago, most

students in Beijing saw the computer as an exotic and mysterious tool, used only by scientists or scholars. Today, computer education is offered in 200 of the city's 280 high schools. And the mystique is fading. A five-day exhibition of computer software for classroom use held last November in Beijing drew 10,000 students and teachers.

The Beijing Education Bureau began to introduce computer education in city high schools in the mid-1980s. In 1990 alone, it spent 5 million yuan (about US\$960,000) to provide schools with about 7,000 personal computers.

The state Education Commission requires senior high school students to take 60 hours of computer course per academic year. The most popular comput-

ers used by students are Zhonghua (China") and Tiantan ("Heavenly Temple"). Made in China, they sell for 1,550 yuan (US\$300) and 1,650 yuan (US\$317), respectively. Apple II compatible, both

brands process in Chinese, English, Russian and Greck. A 1989 survey among 1,200 students in the Primary school Affiliated to Xuanwu teachers' College conducted by the Tiantan Computer Plant shows that about 20 per cent had either Tiantan or Zhonghua computers at home. The accessibility to com-

puter hardware has not been followed by an equally rapid growth of software production. According to Li Yanjun, an official of the Municipal Commission for science and Technology (MCST), this was immediately evident in 1986 when 100,000 locally-made

without any accessory software for computer-aide-instruction

The absence of software remains a problem today. As a result, according to He Longguang, director of Beijing's Educational Software research and Development Centre only 10 per cent of students can use computers, and only inside computer

Research on computer aided instruction started in the Centre only five years ago. So far the Centre has turned out more than 50 kinds of software for computer-aided instruction, "Most available programmes now are produced by computer teachers who have taught math and physics," Mr He said. "They are fairly good quality."

The Centre was set up in 1987 by MCST with an investment of 200,000 yuan (about US\$40,000). "We are providing the Centre with a good business environment so that it can gradually stand on

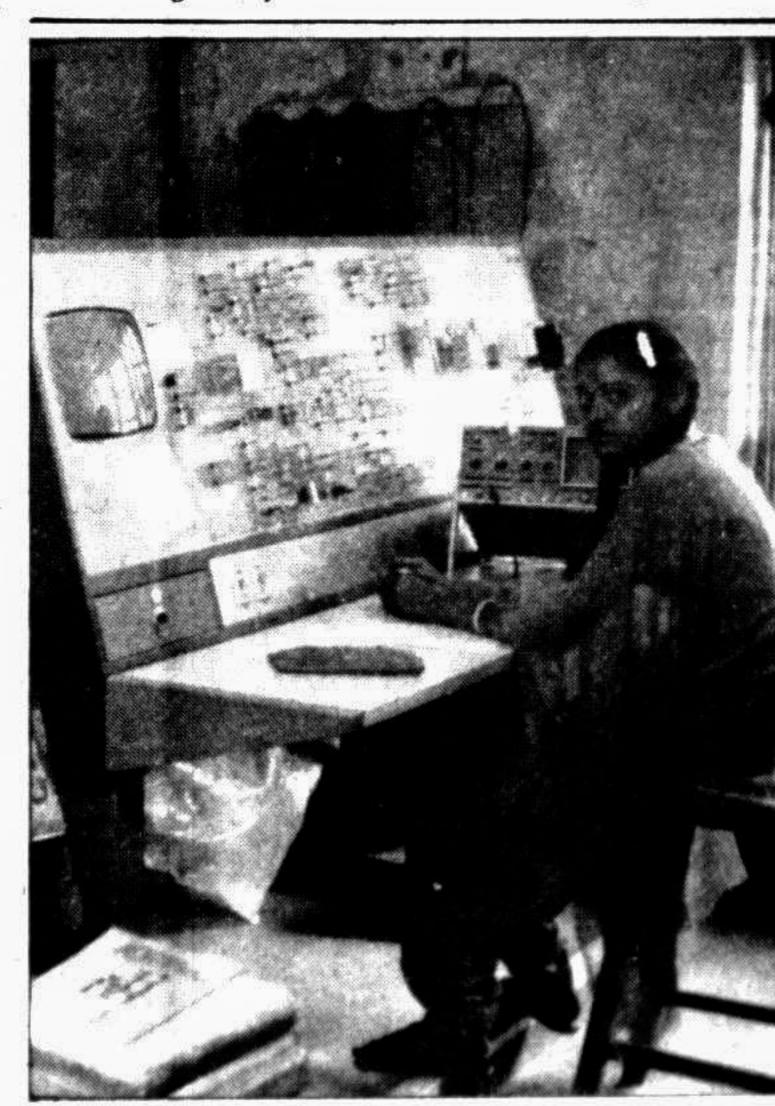
its own," MCST official Li Yanjun said.

Mr He Longguang, who also teaches maths at the Beijing Teachers' College, said educational software focuses on individual instruction suitable for students of different levels.

Every year teachers and programmers submit new programmes to the Centre's Examination and Evaluation Committee, composed of 50 teachers. Selected software programmes are then released

According to Mr He, computer programming is an unprofitable venture in China, Taking into consideration the whole process of programming, appraisal and revision, the cost to produce one computer software is around 2,500 yuan (approximately US\$500)," he said. One disk or a portion of a computer-aided instruction programmes sells for 20 yuan (US\$4), a price Mr He feels is "too cheap" yet many people consider to high.

- Depthnews Asia



A vocational training centre for women in New Delhi, set up with the help from ILO.