Distance Education and Open Learning in a Developing Country like Bangladesh: Philosophy and Reality.

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Abstract

Distance education is thought to be an effective way of educating people of all sections in society. The delivery system in distance education is different than that in the conventional on-campus teaching. However, distance education is considered as close substitute for the conventional on-campus teaching keeping in mind the premises that different types of media (print, audio, video, telephone, computer-based communication system, etc.) are synchronized in the delivery process in distance education and open learning system. Of course, in this age of information super high-way, nobody can challenge the possibility that effective and quality education can be offered through different types of modern media – without any real class room. Real class room can be substituted by virtual class room environment. Now a question frequently strikes our mind: “Is the realities in the developing countries like Bangladesh, where access to modern technologies is very limited, meet the philosophy of distance education?”

This paper aims at examining whether there is any gap between the philosophy of the distance education and the reality in the developing countries like Bangladesh and identify the factors lies behind this gap. Then suggests some measures to be taken to minimize the gap. In the paper, we have analysed the data derived from a survey on the Secondary School Certificate programme of Bangladesh Open University.

Keywords: Philosophy of distance education, Realities, Developing country, media use, access to modern technology.

1. Introduction

For faster growth of the economy of a country human capital should be available along with physical capital. That is why, improving and expanding education are essential ingredients of any national development policy. However, developing countries fails to offer education to all sections of people in society through conventional on-campus system of education due to lack of infrastructural facilities and also some constraints embodied in it. Distance and open learning (ODL) system can play an important role to make-up this gap. In addition to allowing more students from different background, environments and geographical settings without requiring the uses of scarce on-site space, distance and open learning system also offers the
educational institutions more revenue. That means, ODL system is a cost-effective way of mass education. On the other hand, especially in the developing countries, students who cannot go to school due to insolvent economic condition of the parents can have education by earning by themselves. So, ODL systems have proven themselves a way for people to gain education, which would otherwise not possible (Dekkers, 2000). However, when comparing with conventional forms of education the provision of distance education requires considerably greater planning, larger up-front infrastructure costs and more complex student and administrative support systems (Lockwood, 1995; Rumble, 1986). Well-designed support systems facilitate the delivery of distance education courses of comparable quality and attrition rates to those for on-campus courses (NEA, 1999).

Although ODL system is the most efficient and appropriate way of education in the developing countries, the great concern yet attracts the attention of the distance educators is the quality of the ODL programmes. Still the institutions are struggling with quality issues of their programmes. Sometimes, ODL institutions is pinched as low-grade graduate-producing factories, quality graduates are not coming of this system, though as a system ODL system must not be accused in this way. The main criticism may come with the implementation of the ODL system. In reality, a number of factors are concerned for improper implementation of distance education system in the developing countries.

This paper aims at seeing briefly the distance and open education system in Bangladesh. The paper considers the following aspects of distance and open education in Bangladesh:

- Type of the programmes offered through distance mode
- Media use
• Production and delivery
• Quality assurance measures
• Management
• Research, evaluation and improvement efforts

2. Materials and methods

The paper starts with browsing the existing theories of distance education (DE) and then discusses the distance and open learning scenario of Bangladesh and identify the deficiencies. Then tries to explain the reasons behind these deviations and recommends possible remedies.

The paper uses primary and secondary data on the educational programmes in Bangladesh, especially of Bangladesh Open University (BOU).

3. Distance education and Open Learning: Concepts

Distance education and open learning is not a very old system of education as compared with conventional on-campus education system. It came in practice since 19th century. However, a number of improvements have been come forth with DE system in last 2 centuries and still improvement efforts are going on with this system. The most significant and robust improvements have come in last few decades with the development of information and communication technologies.

3.1. Definition

In the awake of DE, due to less attention to this system not many theories have been developed regarding distance education, which interfered with the visibility of its identity. However, a set of reliable distance learning theories have only began to recently emerge. Different theories explain DE in different ways. Keegan (1986) proposes an initial classification for some of the DE theories as follows:
<table>
<thead>
<tr>
<th>Classes of Theories</th>
<th>Main theme</th>
<th>Key words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theories of independence and autonomy</td>
<td>DE is the independence of the students</td>
<td>Learner’s autonomy, distance between teacher and learner</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Theories of industrialization of teaching</td>
<td>DE is the industrialised form of teaching and learning</td>
<td>Mechanization, assembly line, mass production, and standardization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Theories of interaction and communication</td>
<td>Distance teaching supports student motivation, promote learning pleasure,</td>
<td>Motivation, learning pleasure, rapport between learner and the distance</td>
</tr>
<tr>
<td></td>
<td>creates feelings of rapport between learner and the distance education</td>
<td>education institution.</td>
</tr>
<tr>
<td></td>
<td>institution.</td>
<td></td>
</tr>
</tbody>
</table>

Keegan (1986) also provided the elements that compose emerging definitions of distance education. These includes:

- Separation of learner and teacher geographically and in time
- Input of educational organisation in the planning and development of learning materials and student support infrastructure
- Technical media joins learner, teacher and content
- Two-way communication so learner may engage in dialogue with the teacher and / or other learners
- Individual learning due to an absence of the learning group with occasional face-to-face meetings

In short, DE is the system of education where students learn by themselves in the absence of classrooms. Teachers are separated from the students – students do not get any personal touch of the teacher. A wide variety of media are used to serve numerous educational programmes to students. According to Simonson et al (2000), "the term distance education have been applied to a tremendous variety of programmes serving numerous audiences via a wide variety of media". American Council on Education (ACE) defines distance education as ‘a system and a process of connecting learners
with distributed learning resources’ (Chute, P. 220). Students in DE system communicate the teachers and other fellow students through several media.

Distant learners always enjoy flexibility in terms of choosing the place and time of study. However, the degree of flexibility the students able to enjoy depends on the availability of the media and learner’s access to them. Based on the availability of technology, flexibility in DE system varies worldwide (please see 4-Square Map of Groupware Options). However, it is true that DE must have at least some flexibility in compared to most inflexible traditional on-campus education system.

**On-campus education**

![4-Square Map of Groupware Options](image)

To understand the difference of distance education system from the traditional on-campus education system in easiest manner, we may take the help of the 4-Square Map of Groupware Options (adapted from R. Johansen et al, 2000).
Each square side denotes a gamma of technologies applicable to that kind of setting.

We can see that the only classification that fits with the traditional, face-to-face type of learning. That corresponds to the Same Time – Same Place setting.

3.2. Media and technology used in distance and open learning

There are a number of media can be used in ODL system. With development of new technologies, more methods of delivery can be used now. The table below (adapted from Dekkers, 2000) provides possible combinations of different teaching/learning methods and media that can be used in open and distance education programmes.

**Open Learning Delivery Matrix**

<table>
<thead>
<tr>
<th>Teaching/ Learning Method</th>
<th>Type of Media</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Synchronous</td>
</tr>
<tr>
<td>Face-to-Face</td>
<td>X</td>
</tr>
<tr>
<td>Video</td>
<td>X</td>
</tr>
<tr>
<td>Audio</td>
<td>X</td>
</tr>
<tr>
<td>Online</td>
<td>X</td>
</tr>
<tr>
<td>Tape</td>
<td>X</td>
</tr>
<tr>
<td>Email</td>
<td>X</td>
</tr>
<tr>
<td>Print</td>
<td>X</td>
</tr>
<tr>
<td>CD Room</td>
<td>X</td>
</tr>
</tbody>
</table>

It is seen in the table that all the media except ‘online’ can be used either for synchronous delivery or asynchronous. Only ‘online’ media can be used both for synchronous (such as, live interactive tutorials) and asynchronous (like a chat group) delivery. The general purpose of online education are to: (a) increase access to education for individuals located throughout the world, (b) remove barriers of time and space, and (c) develop a cost-effective approach to providing interactive learning opportunities for the adults (Haraim, Hiltz, Teles, & Turoff, 1995; Hiltz, 1994; Khan, 1997).
3.2.1. ODL technologies

Selection of appropriate technology is the case of crucial in distance and open learning system. For this, it is absolutely necessary to have sufficient understanding and comprehension of the available technologies and their appropriate applications. Phelan, Mendoza-Diaz, and Mathews (2000) classified the ODL technologies that are categorically ordered in the figure below:

![Taxonomy of Distance Education Technology]

### 3.3. Instructional design process

A good understandable and also applicable instructional design is important for the success of any educational programme, especially distance education programme. Of
course, instructional design varies a bit from programme to programme. However, the following steps are to be commonly noticed in all cases.

3.3.1. Curriculum development

Curriculum development is the important step in the instructional design process. The following steps may be followed at this stage:

- **Target knowledge /skills**
- **Conduct survey to assess Gap/Needs**
- **Available knowledge /skills**
- **Identify the goals**
- **Analyze the learners and contexts**
- **Write the objectives**
- **Select the appropriate media**
- **Design contents**
- **Select instructional materials**
- **Design assessment tools**
- **Conduct curriculum workshop and make necessary revisions**
- **Finalize the curriculum**
3.3.2. Production of study materials

After the development of curriculum, attention has to be paid to the production of study materials. At this stage, printed modules, audiocassettes, videocassettes, CD-ROM, etc. are produced keeping the objectives of the programme in mind. A team of experts works to develop these materials. Along with others an instructional designer, course writer(s), editor(s), graphic designer, etc. are included in the team in the case of printed study materials production. However, in case of audio-visual materials, some additional people such as scriptwriter, producer, cameraman, editors, technicians, etc. are to be included in the team.

3.3.3. Delivery

‘On time’ delivery is very much important in distance and open learning system. Management involved with ODL system must ensure the ‘on time’ delivery of the study materials to the learners. The whole study package should reach the learners at a time. Courses can be delivered in print or online (through internet). Presently, the most appropriate way of course delivery is ‘online’ delivery. However, selection of delivery mode depends on the level of technology available and the access of the learners to it.

3.3.4. Assessment

Appropriate assessment tools are to be used to evaluate the learner’s gain from the programme. Both continuous and end-of-course assessment can be used in distance education system. Continuous assessment motivates the learners to keep in touch with study.

3.3.5. Evaluation and revision

At every stage of the instructional process, evaluation research should be done to see whether the things are going according to the objectives of the programme. If
necessary, revisions are to be made appropriately. Evaluation and revision are important for further improvement of the programmes.

3.4. Management and policy in ODL

Management and policy play a crucial role in the success of ODL programmes. There are a number of differences exist between the teaching and learning styles of traditional instruction versus a distance scenario and thus the management and policies of the instructing institution should be changed to address those differences. Moore and Kearsley (1998) list the primary differences to be considered as:

- Development of materials in terms of time and budget
- Type of personnel involved (e.g., instructional designers, tutors, technicians, etc.)
- Policy for teacher and staff workloads/compensation
- Significance of technology/media decision
- Procedures for student registration, grading and support
- Methods for assessment of students, faculties, staff and course/programme effectiveness.

Boettcher and Conrad (1998) discuss the ACCEL model as it pertains in distance and open education. The ECCEL model consists of a set of principles that can be used as basic guidelines for the management and development of distance and open education. Explanation of ACCEL is as follows:

- Active:
- Collaborative:
- Customised and accessible:
- Excellent quality:
- Lifestyle fitted:
4. Distance education scenario in Bangladesh

4.1. Importance of distance and open education

Bangladesh is a highly populated lower income country (WDR, 2000) struggling with huge poverty, which creates lots of chaos in the social, political and economic environment. To cope with the present economic backwardness and to avoid prospective fears of severe socio-economic crisis, it needs a big push toward better socio-economic performance of the country, which is not possible without improving the human capital position of the country. Therefore, it is essential for Bangladesh to enhance its general education level as soon as possible. However, due to the seat limitations and also for the inflexibility in space and time at the traditional educational institutions, only small number of people can gain education. Encouraging distance and open learning system can only solve this problem.

4.2. Distance education providers: Bangladesh Open University

Small number of educational institutions (public and private) in Bangladesh offer distance and open learning programmes. Among them, Bangladesh Open University the only public institution which plays the major role. BOU was established in 1992 by an Act of the Parliament (BOU Act-1992 No-38). BOU offers several formal and non-formal programmes ranges from secondary to post-graduate level. The main objective of BOU’s programmes is to provide flexible and need based education and training to the masses, particularly to the rural disadvantaged groups like rural women, agricultural workers, unemployed youths, uneducated adults, health and family planning workers etc.

4.3. Academic programmes offered by BOU:

BOU is now offering a number of formal and non-formal programmes through six academic schools.
### Academic Programmes

<table>
<thead>
<tr>
<th>Schools</th>
<th>Formal</th>
<th>Non-formal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open School</td>
<td>SSC (Secondary School Certificate)</td>
<td>• Elementary Mathematics</td>
</tr>
<tr>
<td></td>
<td>HSC (Higher Secondary Certificate)</td>
<td></td>
</tr>
<tr>
<td>School of Education</td>
<td>CEd (Certificate in Education)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEd (Bachelor of Education)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MEd (Master of Education)</td>
<td></td>
</tr>
<tr>
<td>School of Business</td>
<td>CIM (Certificate in Management)</td>
<td>• Bank Services and Marketing management</td>
</tr>
<tr>
<td></td>
<td>GDM (Graduate Diploma in Management)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBA (Master of Business Administration)</td>
<td></td>
</tr>
<tr>
<td>School of Social Science, Humanities and Language</td>
<td>CELP (Certificate in English Language Proficiency)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CALP (Certificate in Arabic Language Proficiency)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BELT (Bachelor in English Language Teaching)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BA (Bachelor of Arts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BSS (Bachelor of Social Science)</td>
<td></td>
</tr>
<tr>
<td>School of Agriculture</td>
<td>BAgEd (Bachelor of Agricultural Education)</td>
<td>• Irrigation</td>
</tr>
<tr>
<td></td>
<td>CLP (Certificate in Poultry and Livestock)</td>
<td>• Water Management</td>
</tr>
<tr>
<td></td>
<td>CPLP (Certificate in Pisciculture and Fish Processing)</td>
<td>• Horticulture</td>
</tr>
<tr>
<td></td>
<td>DYD (Diploma in Youth Development)</td>
<td>• Animal Nutrition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pest Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use of Aquatic Weeds and Preparation and Preservation of Food</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Population and Gender Issues</td>
</tr>
<tr>
<td>School of Science And Technology</td>
<td>DCA (Diploma in Computer Applications Programme)</td>
<td>• Environment</td>
</tr>
<tr>
<td></td>
<td>BSc in Nursing</td>
<td>• Basic Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Nutrition</td>
</tr>
</tbody>
</table>

### 4.4. Learning method and media used at BOU

BOU is heavily relies on PRINT media in most of its programmes. The following table explains BOU’s position in teaching methods and media use:

<table>
<thead>
<tr>
<th>Teaching /Learning Method</th>
<th>Type of Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-Face</td>
<td>Audio (Radio, ACasst, TelCon)</td>
</tr>
<tr>
<td>TV</td>
<td>Radio</td>
</tr>
<tr>
<td>X</td>
<td>ACasst</td>
</tr>
</tbody>
</table>

- VHS = Video home service (video cassette), VCon = Video conference, ACasst.=Audio cassette, TelCon = Teleconference
It is seen in the table that BOU uses only few methods of learning with limited media (few lectures on TV & radio, Face-to-face tutorials and Audio cassettes, Tapes, printed modules for independent study). It can be seen that the media used here are one-way media. BOU cannot choose more electronic or computer-based media for delivery because of: (i) limited resources, (ii) access is not affordable for most of the learners (distribution of radio and TV in Bangladesh in 2000: radio =17 per 100 household, TV = 4 per 100 household).

4.5. Instructional design

BOU follows most of the stages of the standard instructional design process when it opens a programme. When it plans to launch a programme, it begins with curriculum development. Once the curriculum has been developed, then it goes for production of the study materials. After the preparation of the study package, the materials goes for delivery. Then assessment is done at the end.

4.5.1. Curriculum development: At this stage, BOU usually goes through the following steps:
4.5.2. Production of study materials: BOU produce mainly the printed text materials for its students. A course development team works in producing the printed materials. A course developed team works for producing the materials. It is in the centre of the production cycle.

![Production cycle diagram]

Fig: Production cycle

4.5.3. Delivery system: Once the materials have been developed, BOU delivered them to the learner through student support services channel. Due to traditional complicated postal services, it becomes difficult to ensure the on time delivery of the materials to the learners. All the courses are delivered in print. There is no online delivery.

4.5.4. Assessment techniques used: In most cases, end-of-course exams are conducted to assess the learners. In some courses, along with end-of-course exams there are continuous assessments in some courses. For continuous assessment,
students are given some assignments which are evaluated by tutors. Assignments are called ‘Tutor Marked assignments or TMA’.

4.5.5. Research, evaluation and revision/improvement: Research and evaluation activities are very limited in BOU. As a result, not much revisions is being made with the study materials. Once it is produced, reprint of the same dummy is going on year after year. Sometimes few corrections are made with some course materials, which does not improve the contents of courses at all.

4.6. Management structure

BOU’s management structure is not really synchronous, which frequently creates coordination problems between the academic schools and the divisions. The structure of BOU management is like below:

As we see in the chart above, the academic schools and the divisions are HORIZONTALLY integrated, both are vertically related with the vice-chancellor’s secretariat. It creates coordination problems among the schools and the divisions,
which makes the production activities and delivery very complex and delayed. Since
the divisions (especially, Student Support Services Division and Printing and
Publishing Division)

5. Summery and conclusion

Distance and open learning is now the reality in Bangladesh to enhance the
educational level of its inhabitants in general. However, the concern about the quality
of the programmes through distance mode is still high.

Due to limited availability and access to the modern technology, all required media
cannot be used in delivering the courses, which raises the question about the quality
of the ODL courses in Bangladesh Open University. Public initiative can solve this
problem in some extent. Government can allow BOU to use a separate television
channel or a big chunk (4-5 hours a day) in the national TV channel. The same thing
can be done in case of radio. Easy access to telecommunication can be extended to
BOU students and staffs on priority basis.

Failure of on-time production and delivery is a big problem at Bangladesh Open
University. It will seriously hamper the long-term sustainability of BOU programmes.
Academic schools and the concerned divisions must put maximum attention on the
timely production and delivery of the study materials.

Horizontal integration among schools and the concerned divisions creates
coordination problems. Academic schools and at least three divisions such as Student
Support Services Division, Printing and Publishing Division and Exam Division must
have strong coordination among themselves. If necessary, the said divisions can be
put under direct command of the schools. On the other hand, frequent workshop,
seminar, discussion, training, etc. may motivate them and enhance coordination
among them.
Lack of research and evaluation makes BOU programmes very much static and backward as times goes ahead. No improvement is made with the courses. For ensuring quality of the programmes, BOU should emphasize on research and evaluation and regular revision or updating the study materials. Finally, BOU authority must take initiatives to enhance professional sincerity of the staffs.

References


