Turkish Online Journal of Distance Education-TOJDE April 2006 ISSN 1302-6488 Volume: 7 Number: 2 Article: 12

QUALITY AND PROCESSES OF BANGLADESH OPEN UNIVERSITY COURSE MATERIALS DEVELOPMENT

Md. Tofazzal ISLAM
School of Agriculture and Rural Development
Bangladesh Open University
Gazipur-1705, BANGLADESH

Md. Morshedur RAHMAN
School of Agriculture and Rural Development
Bangladesh Open University
Gazipur-1705, BANGLADESH

K. M. Rezanur RAHMAN
School of Science and Technology
Bangladesh Open University
Gazipur-1705, BANGLADESH

ABSTRACT

A new member of the mega-Universities, Bangladesh Open University (BOU) introduced a course team approach for developing effective course materials for distance students. BOU teaching media includes printed course books, study guides, radio and television broadcasts, audiocassettes and occasional face-to-face tutorials. Each course team comprises specialist course writer(s), editor, trained style editor, graphic designer, illustrator, audio-visual producer and anonymous referees. An editorial board or preview committee is responsible for the final approval for publishing or broadcasting materials for learners. This approach has been proved to be effective, but appeared to be complicated and time-consuming. This report focuses on the quality and processes of BOU course materials development taking into account the strengths and weaknesses of the current approach.

Keywords: Course team, Bangladesh Open University, Quality of course materials.

INTRODUCTION

The Bangladesh Open University (BOU), a public sector university, has emerged in 1992 as the first university to introduce higher education through distance mode. It exploits various teaching media to teach students, especially those who are unable to enroll in traditional institutions (Ali et al, 1997). The BOU has set up 12 regional resource centers (RRCs), 80 coordinating offices (COs) and more than 800 tutorial centers (TCs) geographically distributed throughout the country. It has so far introduced 21 formal academic programs and, a number of non-formal programs on primary health care, nutrition, agriculture, poultry, livestock, energy, and environment (Islam and Rahman, 1997; Islam et al., 2004). Current enrolment of BOU is approximately 600 thousands which is much higher than the total enrolment of all traditional universities in the country.

In distance learning, materials are to take over the teachers' responsibility. The success and failure of distance education depends on the quality of its course materials. BOU has been started to develop a standard process for developing course materials to satisfy the demands of its students. By sharing with the experiences of other distance education institutions and also using own experiences, BOU introduced course team approach for developing its course material (Islam and Rahman, 1997; Faruque, 1998). Though BOU's course materials are well accepted by the students (Kabir, 1995; Anonymous, 2002), yet

there exists a demand for further research on the course materials developing process to satisfy the growing demands of learners'. Although BOU has successfully introduced some important media traditionally used in distance education in less developed countries, it may add some new and feasible e-learning systems considering the recent expansion of information and communication technologies (ICTs) in the country. There is no report published so far on the processes and quality of BOU course materials development. This paper, therefore, attempts to describe the processes and quality of BOU course materials development taking into account the strengths and weaknesses as well as possible ways of improvement.

PROCESSES of SELECTING ACADEMIC PROGRAMS AND DEVELOPMENT OF CURRICULA

After establishment in 1992, BOU first conducted a nation-wide Need Assessment Survey (NAS) to identify the potential target people that the university might serve, and their needs for BOU programs (Ali et al., 1997). According to NAS, 21 formal academic programs were listed and prioritized. Then the academic planning committee of BOU approved the programs and advised respective schools to launch the relevant academic programs. BOU has 7 academic schools namely: School of Agriculture and Rural Development, School of Science and Technology, School of Social Science, Humanities and Language, School of Education, School of Business, School of Law and Open School (Islam et al., 2004). Every school has one or more curriculum committee to develop a detail curriculum for a certain academic program.

Curriculum committee consists of leading academicians and media experts from the in-house faculties as well as from outside the BOU. For each individual course, there is a syllabus committee to frame the detailed syllabus following the content of curriculum. The proposed curriculum goes to the Academic Council through the school for consideration and final approval. When the curriculum accepts by the academic council, the respective school takes responsibility for developing the course materials. The quality of BOU curricula was compared to formal system, and reported by the Asian Development Bank (ADB) as shown in the Figs. 1, 2 and 3 (Anonymous, 2002). It appears from the ADB and other reports that BOU curricula are equivalent or slightly lower standard to the curricula of formal system in Bangladesh. It is surprising to note that curricula of both formal system and BOU are less relevant to the job requirements in Bangladesh.

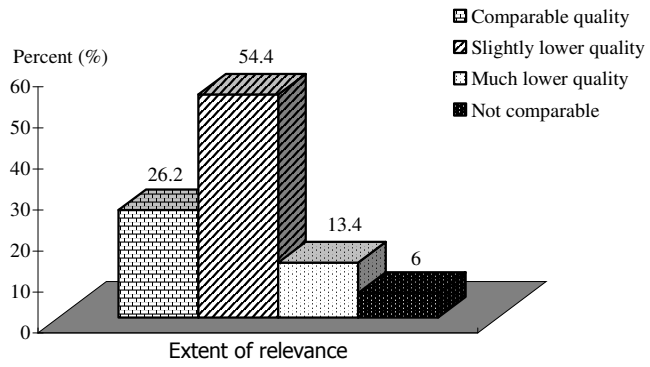

Fig. 1. Tutors' perceptions about the quality of BOU's curricula compared to those of the formal system

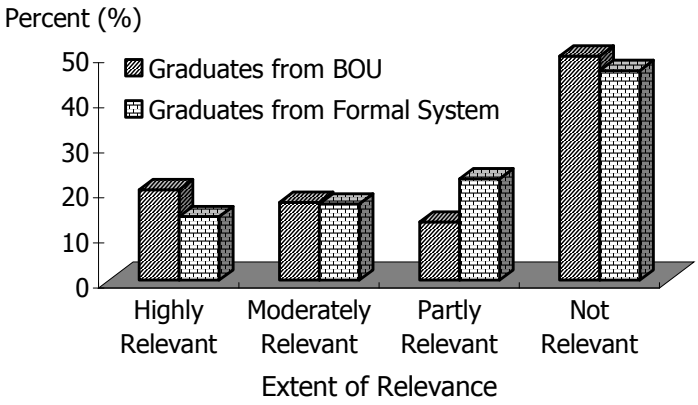

Fig. 2. Graduates perception of the relevance of their curricula to job requirements

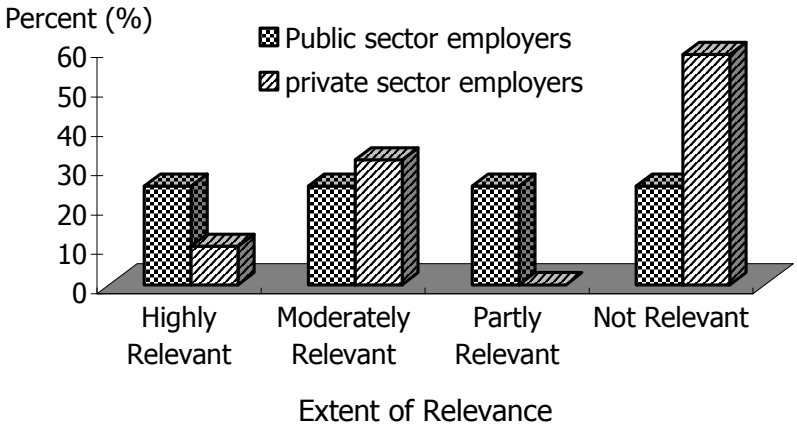

Fig. 3. Employers' perceptions about the relevance of BOU's curricula to job requirements

DELIVERY MEDIA OF BOU COURSES

Global Distance Education (DE) has progressed very rapidly during the last few decades. Now DE is defined as learners being able to communicate with voice, video and data, real time with teacher and other learners using modern ICTs.

But due to economic and infrastructural constraints, most of the universities in the developing countries like BOU are still far behind to adopt all modern technologies to teach their distance learners. They are adopted, such technologies those are easily accessible to their distance learners. BOU is using print, television, radio, audiocassettes and occasional face-to-face tuition to teach its learners (Islam et al., 2004).

It is not yet adopted computing media and technologies for teaching, for obvious reasons of cost and poor access but it has adopted a spectrum of four of the five media and makes use of four technologies (Rumble, 1995).

DEVELOPMENT PROCESS OF BOU COURSE MATERIALS

Process of BOU course materials development is relatively lengthy and complicated. Print is still a powerful medium in many open universities in the developing as well as the developed countries (Gaba and Dash, 2004). To supplement the printed materials radio and television broadcasts and audio cassettes are being used in BOU. All materials are produced in a strict and systematic process as depicted in Fig. 4. As print is the core medium of BOU course materials, the process of course book development is discussed in detail.

Print

BOU's print materials include self-study course book, study guide, and student guide. Course book at BOU is developed by a team called 'course development team' (Islam and Rahman, 1997). Each course team consists of specialist course writer(s), editor(s), style editor, graphic designer, illustrator, and a course coordinator. Two anonymous referees are responsible for the validation of each course book before publication.

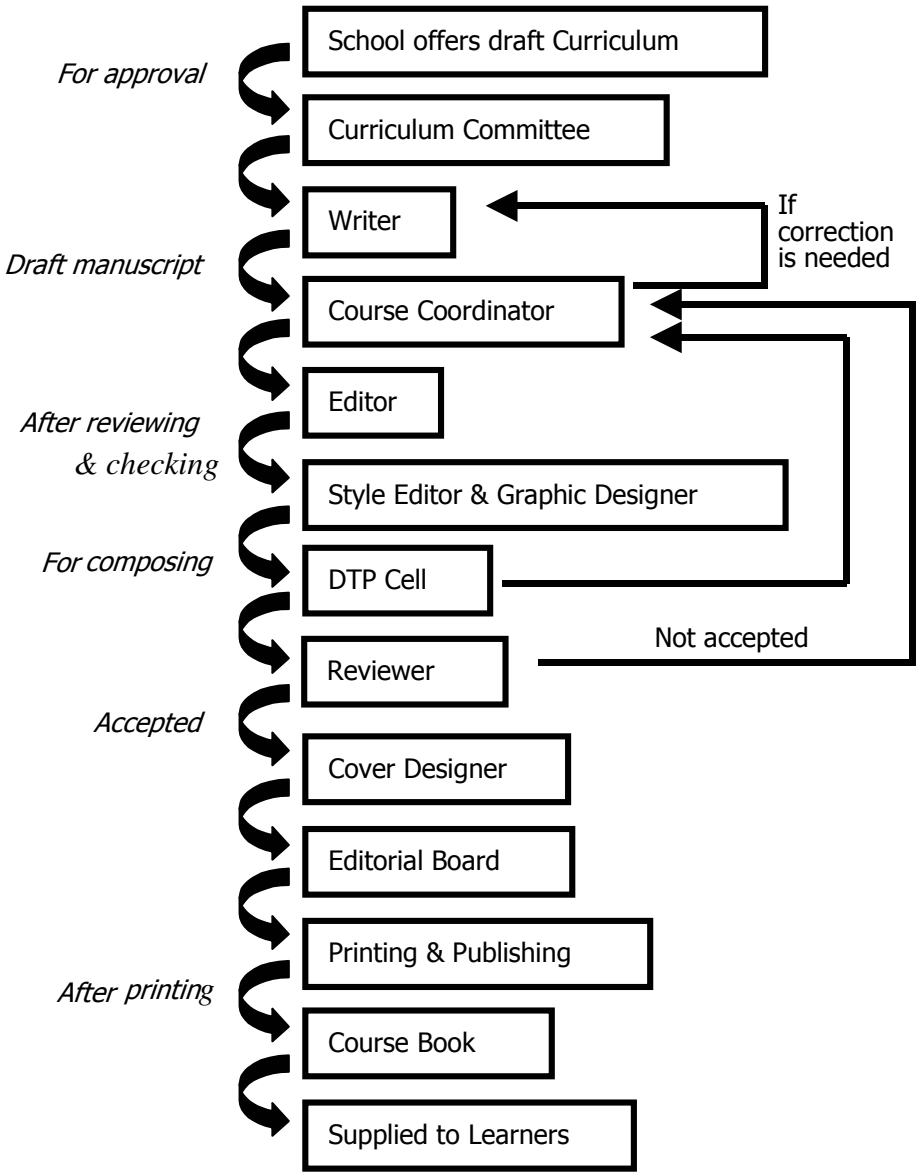

Figure: 4 Schematic diagram of BOU course book production process

In order to maintain a high standard of education, BOU closely scrutinizes the writer's expertise on the subject as well as on writing skills. Writers are selected from both in-house faculties and also from the leading academics of the country. All writers except BOU faculties are invited to attend a training workshop, and are offered a Handbook (style guide) and some sample copies from similar courses. Similar approaches are also practiced in other Distance and Open Learning (DOL) institutions (Hedberg, 1987).

When the writers are oriented to the content of the course and distance education, detailed syllabus of the respective course is given to him after signing up a contract form regarding copyright and others. The course coordinator briefly checks the submitted manuscript by the course-writer and then forward it to the style editor, editor, illustrator and graphic designer. The style editor checks all features related to self-learning.

The Desktop Publishing activities are going on with style editing. The editor concentrates on the standard of writing to see whether it is user friendly, whether language is appropriate, and also the read ability of the course book. He also finds the ambiguous statements to be clarified by the writer; identifies vocabulary and syntax items that may increase the difficulty of the texts; and enumerates inaccuracies, which commonly occur in writing. The graphic designer prepares a significant and attractive cover design and the illustrator prepares different types of illustrations to make the subject matter easy to understand.

When all the above mentioned processes are completed, the manuscript is fully edited and corrected, the manuscript is then sent to two the anonymous referees for review. After the review, the course coordinator sends it to the Editorial Board for final approval for publication. Finally, a tracing copy is send to the Printing Publication and Distribution Division for printing the course book in due time.

In some higher academic programs like BELT (Bachelor of English Language Teaching), BOU adopted some course books from other university or general textbooks directly. In such cases, a study guide is provided to the student to make the adopted book as user friendly. The in-house faculty member, who expertise in the respective subject as well as instructional design prepares the study guide.

Production of audio and audio-video materials

Like course book production, BOU follows standard principle for audio and audio-visual productions. Considering the difficulty level and efficiency of media, every school selects topics from different courses for audio and audio-visual production. Presenter is selected from in-house faculty member and/or reputed academics from outside. The selected presenter prepares a script on the basis of topic. The school checks the quality of the script and then sends to the respective producer of Media Division. The producer arranges recording and edit the materials with a media editor, and then presents in front of a preview committee. The preview committee consists of subject specialist, faculty member and media specialist. The decision of the preview committee is final. If the committee decision is positive the production will go on air.

BOU introduced audio cassette to supplement its printed course material in some language teaching programs (English or Arabic). These audio cassettes are usually prepared by the invited guest speaker and also by in-house faculty member.

QUALITY of BOU COURSE MATERIALS

Once the course is in operation, the university monitors the performance of the course materials, and begins to collect data on errors. In this respect, it encourages students and tutors to report errors and difficulties they encounter in the course. The information or feedback is collected and analyzed by the relevant program for the purpose or relevant course. If the case is serious i.e. the criticism outweighs the positive reactions the course is then revised and reprinted; otherwise, errata pages for the mistakes will do.

BOU policy of developing a course incrementally, refereeing its materials meticulously, inviting criticisms, collecting feedback, observing course presentation and assessment, correcting errors and revising the whole work is to ensure that quality assurance is maintained. This traditional approach is but a synthesis of the BS 5750 (i.e. quality loop) Approach and the Iterative Approach (Freeman, 1991), and the whole process has proven effective in the case course materials development at BOU (Islam and Rahman, 1997). Survey report of students opinion on the over all quality of BOU course books, radio and TV programs and audio cassettes stated that BOU materials is good for self-study (Rumble, 1995; Ali et al., 1997).

Almost all academic and administrative staffs of BOU have received advanced training on different aspects of distance and open learning in home and abroad. This enables BOU to launch and successfully run a huge number of formal and non-formal programs within a decade of its establishment, and maintain the quality of these programs. Another interesting feature of BOU course materials is that it first produced so high number of course books in Bachelor and Masters Level programs in Bengali medium. There were almost no higher level books in Bangla (mother tongue) medium especially in the field of agriculture, computer science, health and environments. Therefore, these course books are often using by the students of traditional universities.

LIMITATIONS oF BOU COURSE MATERIALS AND SUGGESTIONS FOR IMPROVEMENT

Although printed course materials, the most powerful tool of distance learning, are available to the learners of the BOU as elsewhere in the world, yet teaching support from ICTs i.e. e-learning, the revolutionary methods for distance education of the modern world are still out of reach of the BOU students (Islam et al., 2004). This is an unfortunate situation because the distant students everywhere want a learning process flexible but relevant to their work, updated, portable, affordable, and understandable (Faruque, 1998). Modern electronic supports in addition to modules produced following proper instructional design can only satisfy the needs of the distant learners to understand their readings better with comfort and satisfaction.

Other modes of delivery except printed texts are not well developed yet in BOU. Access to TV and radio programs is also to some extent restricted owing to short period of broadcasting by the government owned TV and radio stations. TV and radio broadcasts are only one way lecturing without discussion and interaction. As a result the hunger to know by asking questions and participation cannot be fulfilled. A survey result (Kabir, 1995) further indicated other problems like an instable supply of electricity and frequent transmission interference in TV broadcasts by other stations from across the border of the country. To solve this problem, BOU can easily make available those audio and audio-visual programs in RRCs, LCs and even COs for the students use. Some of those programs could be added in the course package as CD-ROM. These attempts would surely improve the current delivery system with a cost-effective manner. Question has also been raised about the effectiveness of the practical sessions in science and technical courses. Attendance in tutorial sessions can not be made compulsory to the learners in the ODL system. But missing practical sessions seriously hampers the learners, outcome in a practice-oriented program like agriculture.

It has also been observed that the students who did not attend the tutorial sessions regularly failed in great numbers in the practical part of examinations. To attend selective practical sessions should be mandatory especially for the students of applied science courses. A separate booklet for practical work should be prepared, and also to ensure the facilities of the practical work in the tutorial centers or RRCs or COs. Students should be encouraged to get activity involved in practical components (Harvey, 1992).

The tutorial services in the TCs are only offering direct interactions between tutors and learners. However, most of the tutors are not well familiarized with the concept of DE.

They want to teach students in a traditional ways of lecturing rather motivating students for self and collaborative learning practices. Therefore, more effective tutor training is essential to motivate the tutors to behave as a tutor not as a teacher for creation of friendlier environment in the tutorial sessions.

As accumulation of the new knowledge in any discipline is increasing very rapidly specially in the areas of science and technology, BOU course books should be revised in every five years or less intervals. BOU has now a group of well-trained workforce. So it is very important to utilize all experts in their respective area/disciplines they trained. A new division of instructional design can be established to do research on innovative approaches for course materials development (Islam and Rahman, 1997) as well as to maintain the instructional quality of the course materials.

CONCLUSION

The response of BOU education has been phenomenal. If number are at all any indicators, the number of enrolled students in the BOU which has only 13 years old stands at about 600 thousands, makes it a young member of the mega-Universities.

It seems the demands of the peoples should now be matched by appropriate logistics in place. But it is a great challenge for BOU to maintain the quality of its products. Therefore, in every step, BOU should remember the comment of Sir John Daniel "Can we have quantity with quality".

Innovative idea for improving the present systems of delivery particularly in the process of practical demonstration in science and technology courses and update the courses after an interval will no doubt improve the situation to achieve the goal of bringing out graduates of assured quality from the BOU.

BIODATA AND CONTACT ADDRESSES of AUTHORS

Dr. Md. Tofazzal ISLAM is an Associate Professor of the School of Agriculture and Rural Development (SARD) of Bangladesh Open University (BOU), Bangladesh. He obtained his B. Sc. Ag. (Hons.) and M. Sc. (Ag.) degrees from Bangladesh Agricultural University, Bangladesh securing the first position in both the cases in order of merit. He joined BOU in 1994 as a lecturer and received extensive training on principles of instructional design and production of audio and audio-visual materials for distance and open learning. He was the first teacher of SARD, and played a significant role in launching an undergraduate program in agriculture (B. Ag. Ed.) in Bangladesh through distance mode.

Dr. Islam awarded his Ph D in Applied Biosciences from Hokkaido University, Japan in 2002. He has been awarded a fellowship from the Japan Society for the Promotion of Science (JSPS) for doing postdoctoral research at Hokkaido University from 2003-2005. For his outstanding academic and research accomplishments, he got many prizes and medals including a Silver Medal and Award from the Japan Society for Bioscience, Biotechnology and Agrochemistry as the best young scientist in 2003. He participated in many national and international conferences at home and abroad, and published more than 50 research articles and book chapters in peer-reviewed journals.

Md. Tofazzal ISLAM Associate Professor School of Agriculture and Rural Development
Bangladesh Open University Gazipur-1705, BANGLADESH
Tel. 88-02-9291101-4 Extn. 326
Fax 88-02-9291122
Email: tofazzalislam@yahoo.com

Md. Morshedur RAHMAN is a faculty of School of Agriculture and Rural Development (SARD) of Bangladesh Open University (BOU), first of its kind in Bangladesh. After graduating from Bangladesh Agricultural University, Bangladesh with excellent academic record Mr. Rahman joined in BOU as a lecturer. He received many national and international training (including a 24 weeks long training at University of Guelph, Canada) on distance education concept, instructional design, preparation of audiovisual materials. He has prepared modules and audio-video materials for various formal and non-formal programs of SARD.

He has a keen interest of effective use of digital media in higher education of Bangladesh as well as reaching to the unreached people. Mr. Rahman now studying at Graduate School of Agriculture of Hokkaido University, Japan as a PhD student.

Md. Morshedur RAHMAN
School of Agriculture and Rural Development
Bangladesh Open University
Gazipur-1705, BANGLADESH

Dr. K. M. Rezanur RAHMAN is an Associate Professor of the School of Science and Technology (SST) of Bangladesh Open University (BOU), Bangladesh. He obtained his M. Sc. (Physics) degrees from Peoples' Friendship University, Russia securing the first position. He joined BOU in 1997 as a lecturer and received extensive training on principles of instructional design and production of audio and audio-visual materials for distance and open learning. He played a significant role in launching a Diploma program in Computer Science and Application (DCSA) in Bangladesh through distance mode.

Dr. Rahman awarded his Ph D in Physics (major in Integrated Optics) from Peoples' Friendship University, Russia in 1996. He has been awarded a fellowship from the Japan Society for the Promotion of Science (JSPS) for doing postdoctoral research at University of Tokyo from 2001-2002. He participated in many national and international conferences at home and abroad, and published more than 15 research articles in peer-reviewed journals.

K. M. Rezanur Rahman
Associate Professor
School of School of Science and Technology
Bangladesh Open University
Gazipur-1705, BANGLADESH

REFERENCES

Ali, M. S., Haque, A. K. E. & Rumble, G. (1997) The Bangladesh Open University: mission and promise, *Open Learning 12, pp. 12-17.*

Anonymous (2002) Project performance audit report on the Bangladesh Open University project (Loan 1173-BAN[SF]) in Bangladesh, October 2002 Asian Development Bank (http://www.adb.org/Documents/PPARs/BAN/ppar_ban_23056.pdf).

Faruque, A. H. M. (1998) How effectively we can teach agriculture in distant mode. *Proceedings of the International Conference on Collaborative and Networked Learning*, New Delhi. 1998.

Freeman, R. (1991) 'Quality assurance in learning materials production', *Open Learning, 6 (3).*

Gaba, A. K. & Dash, N. K. (2004) Course evaluation in open and distance learning: a case study from Indira Gandhi National Open University, *Open Learning, 19(2), pp. 213-221.*

Harvey, L. (1992) *'Criteria of Quality',* The University of Central England, Birmingham, UK.

Hedberg, J. G. (1987) Desktop publishing and better design of educational materials, *Educational Research and Perspective, 14(1), pp.69-81.*

Islam, M. T. & Rahman, A. N. M. (1997) 'Quality assurance in distance and open learning: Bangladesh Open University experience', *Conference Proceedings,* 11th AAOU Annual Conference, Kuala Lumpur, Malaysia, 1, pp. 187-194.

Islam, M. T., Selim, A. S. & Rahman, M. M. (2004) Current status and prospects for e-learning in the promotion of distance education in Bangladesh, *Proceedings for IITC 2004,* Colombo, (Submitted).

Kabir, S. 1995. Academic plans of Open University. *The Guardian,* Dhaka.

Rumble, G. (1995) Media use at Open University, *The Guardian,* Dhaka, Bangladesh.