

Study on Learners' Preparedness for Digital Learning Materials (DLMs) as Supplement of Self-Learning Materials (SLMs) of the Open School of the Bangladesh Open University

Theme: Formal Education
Sub-theme: Technologies for Scaling up ODL programmes

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1 INTRODUCTION

Self-Learning Material (SLM) refers to teaching materials that can be used by the learners without the assistance of a teacher. These materials keep the learners active and help to improve their cognitive skills. Programmed learning materials and learning modules are such materials that follow a self-study approach. Ding (2002) states that the advent of technology provides opportunities for more interactive and flexible distance learning programs. Traditional print-based distance learning programs have experienced face lifts and adaptations to the web. The Open School of Bangladesh Open University (BOU-OS) often uses digital learning materials as an "add-on" in English course of Higher Secondary Certificate (HSC) program. Open School plans to introduce more digital learning materials as the current government's agenda of implementing Digital Bangladesh provides a key to harnessing the educational potential of digital resources, Internet communications, virtual interactive classroom (VIC) and interactive multimedia to engage the interest, interaction, and knowledge construction of disadvantaged learners of the BOU-OS. This extension activity transforms the traditional open schooling model. This paper investigates the changing requirements and new possibilities represented by the challenge of integrating ICTs in open school programs in a way which at the same time connects more effectively with both the specific contents of the curriculum and the various stages and elements of the learning process. This study suggests that designers should provide "ICT-supported learning activity" keeping the preparedness of the learners so that it becomes effective. Carrying out a needs assessment on the learners entails preparedness of their studies.

2 AIMS AND OBJECTIVES

The main aim of this paper is to discuss the implementation if digital learning materials are feasible for the Open School programs. The specific objectives of the current research are:

- to promote the key concepts, values and principles of digital learning materials as portrayed in the introductory part of the articles;
- to increase awareness of the different dimensions of digital learning materials that need to be considered when establishing and maintaining a digital system in the BOU Open School;
- to maximize understanding of the different parts of the strategy in terms of the tools therein and how they should be used to enhance learning activities for the learners in the School;
- to assess the School's readiness to implement the online materials as supplements of the print SLMs;
- to discuss what immediate steps taken in the School for implementing online materials;

3 STATEMENT OF PROBLEM

The problem that the School confronts with is how the learners could enhance this learning activity with digital learning materials. The major handicaps the learner have no access with the learners in the Open School have no access in the TCs of computer. So it is not feasible to introduce teaching through digital is useless. The investigator therefore attempts to test the effectiveness of this approach this using the personal pc/cyber café. The research problem, therefore, is stated as:

“Assessment of Learners' Preparedness for Digital Learning Materials as Supplement of Self-Learning Materials (SLMs) of the BOU-Open School”

4 METHODOLOGY

Saba (2000) describes that the distance education research has by far been experimental method. Chen & Willits, (1999) emphasizes on conversation and discourse analysis and McDonald and Gibson, (1998) states that DE research should have extensive interviewing of students. This research sought to allow the participants' responses defined the nature of the finding through emergent themes. Structure questionnaires (Annexure A) were used to have the opinion of the learners and interview were made through mobile phones and face to face contact. Besides the mobile phone access, the researcher was also able to communicate with the faculty members of the different courses within the School. Learners' mobile number was gathered from the Students Support Services (SSS) Department of the University. Permission was sought from the Dean Open School and the teachers of the course selected such as science, home economic and commerce. At the onset of the research, two learners: one from the urban and another from rural from the HSC programme who have undergone and successfully graduated from the BOU Open School. 80 students from the first year identified with the help of the SSS division responded with interest in participating in the research. They were interviewed via mobile and in addition, 20 learners were supplied questionnaire from at the rural area accepted the invitation to participate. Researchers also discussed the matter with the teachers at the Open School who are involved in the university's e-learning committees and the tutors of the programme. The research was conducted during the participants' 2nd year of study. Background information was obtained from each participant and from the university's data base. The same procedure of informing and gathering background information was carried out with the tutors. There is similarities in the participants' background can be attributed to their individual needs and the learning system. Therefore, sample size was limited to 100+ only.

5 THE RESEARCHERS' ROLE

The first researcher positioned herself as an instructional designer who was seeking respondent's opinions and ideas about the learning environment in the digital system. Participants were described the objective of the research and the research intentions. Discussions pertained only to the research unless the participants seek to do otherwise. In any case, the researcher conceded to listen to learners' queries up to a certain limit. At the time of interview, it was found that learners were making program queries. There was no probing into the subject matter or the present teaching-learning process. The researcher was aware of the importance of listening and opening the floor for further discussion related to the research questions right from the onset of the research. The second researcher is the PhD supervisor of the first writer. He is the big name in the distance education. He provided guidance in every step and his authority on DE has been reflected in the research. Even he structured the current research paper. Learners were interviewed not constrained by geographical location and gender, age and sexuality did not apply when communicating through mobile.

6 DISCUSSION

The Open School (OS) of Bangladesh Open University (BOU) is constitutionally of equal status to the five other Schools (Faculties) of the University (Ministry of Law, 1992) namely School of Education (SOE), School of Business (SOB), School of Agriculture & Rural Development (SARD), School of Science & Technology (SST) and School of Social Sciences, Humanities & Languages (SSHL). It offers three programmes entitled Junior School Certificate (JSC) for Grade: 6-8, Secondary School Certificate (SSC) for Grade: 9-10 and Higher Secondary Certificate (HSC) for Grade: 11-12. Established in 1992, the BOU has been the only Open and Distance Learning (ODL) provider in the country; and with the main campus in Gazipur, some 30 km north of the capital, Dhaka. The University enrolls each year nearly 100,000 learners in its 23 programs of study and 90 per cent of them are the learners of the Open School programs. As such, Open School's programmes cover every remote corners of the country, and provide the highest revenue to the university exchequer.

Open School extensively uses print, radio-TV broadcasts at the national chunk and tutorial supports services near to the learners place. The program curriculum is at par to the conventional curriculum; not only that, this is University's policy and that's why; the School changes the syllabus of the courses when there is a change in the National Textbook and Curriculum Board (NCTB). SSC and HSC curriculum do not have vocational courses; but only the JSC Programme curriculum is coupled with the vocational courses and ICT learning materials, in a limited range, are used at the ODL centres.

6.1 ICT-enabled learning supports

Current government is implementing the Digital-Bangladesh agenda and its impact on the BOU system is tremendous. Therefore, Open School plans for digital content development so that it can be used for the learners as ICT-enabled learners' supports. In this survey, mean value of the learners responses on study materials reflect the ICT aspects is 3.95; this provides that learners of the Open School are prepared to have the ICT enabled leaning supports.

6.2 TV broadcasts

BOU obtained allocation of airtime on national radio and television. The programme direct costs are quite modest because the University do not pay any broadcasting fee. This chunk is allocated to each School each week regardless of how many students or how many programmes each school has. The Open School broadcasts TV programmes to courses which courses would most benefit from access to which medium. The TV programme is very popular to the learners as the mean value 3.53. In addition, learners like TV program with compare to attend the tutorial classes (mean value is 4.54).

6.3 Virtual Interactive Classroom (VIC)

The BOU-OS runs VIC program to make a video interactive for the English course of the Higher Secondary Certificate (HSC) program of the School. This approach is new at the School although it runs TV broadcast on the national television called Bangladesh Television (BTV) since its inception in 1993. The method uses mobile technology as the interactivity tool and BOU enters into the m-learning through this methodology. Access to computer, mobile and electronic devices has increased drastically (Karim, 2008) in Bangladesh; but it has poor access to broadband Internet connectivity particularly in the rural area. At the moment, about 99% area of the country is under mobile network. About 30% households use TV and 50% use mobile phone. Given the situation, BOU has tremendous opportunity for making interactive videos for its different programs which may change the learning activity of the open school learners. OS has a plan for increase this interactivity video for other courses particularly urban based learners who, sometimes, live in highly remote area. OS learners have the mobile phones and they contact with tutors (mean value is 3.51). This means there is a tremendous prospect of VIC with in the School and learners

are prepared to have this opportunity of learning resources. Rahman & Panda (2008) states that BOU Open School successfully prepared the virtual interactive classroom through TV program coupled with the mobile technology and its prospect is tremendous in the operation of the open schooling.

Table A: Learner's responses on ICT Materials

Criteria Statement		Percentages of learners' opinion					Mean Responses
		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	
n94	Textbooks encouraged learning	3.2	4.3	13.8	46.8	31.9	4.00
n88	Too much content in the texts	21.6	29.5	21.6	13.6	13.6	2.68
n94	Use of learning CDs in addition to BOU text	20.2	42.6	16.0	12.8	8.5	2.47
n90	ICT is useful for difficult content	28.9	38.9	16.7	7.8	7.8	2.27
n94	Use of mobile to communicate with tutors	5.3	25.5	9.6	31.9	27.7	3.51
n93	Use of TV program	7.5	20.4	10.8	34.4	26.9	3.53
n94	Desire for texts are supported with video clips	20.2	37.2	16.0	21.3	5.3	2.54
n94	Desire interactive video as learning materials	14.9	40.4	10.6	22.3	11.7	2.76
n96	Internet connection at home	15.6	51.6	15.6	12.5	1	2.60
n92	Regular use of cyber café	7.6	23.9	12.0	35.9	20.7	3.38
n90	Friend's Internet connectivity group study	5.6	21.1	7.8	43.3	22.2	3.56
n95	Needed ICT materials to understand the content	1.1	14.7	9.5	53.7	21.1	3.79
n90	TV-programs more interesting than real life classroom at the tutorial centre	0	24.4	7.8	53.3	12.2	4.54
n88	Believe that I would if my study materials reflect the ICT aspects	1.1	8.0	6.8	62.5	21.6	3.95

6.4 Process for Digital Lesson Notes

The School aims to develop e-content by the Course Lecturer in the form of the lesson notes and will be published in the University website after a review by the Assessor known who is authorized by the relevant academic unit and appointed by the University Authority. A reviewer is responsible for making an assessment of the overall structure, balance (say 2 pages each), and teaching points; and reporting formally in writing to the Dean of the School.

6.5 Usefulness of digital lesson notes

Past experience says that Open School always delayed in delivery of the texts to the learners and tutors were experienced in conducting tutorials because of non-available of the books. It is expected that these online lesson notes will eliminate this problem because most of the tutorial centres already been equipped with the computer as the current government is implementing the Digital Bangladesh agenda. Ministry ordered Schools to communicate with Ministry via email only and this order has established availability of the Internet in the tutorial centres. Therefore, all Open School learners have the Internet access and they can get print of the lesson notes. In addition, 99% area of Bangladesh is now mobile network; and Internet is available in all over the country. So the learners can get the tutorial notes either in the centre or in the cyber café which are available in any business centre near to the TCs. The learners' mean response on use of cyber café is 3.38. This means digital content plan by the School maybe successful as the learners are Internet Café going as they don't have Internet connection in their own (mean value

is 2.60); but they can have this facility from the friends (mean value is 3.56). Therefore, Open School plans for digital content development so that it can be useful for the learners as ICT-enabled learners' supports.

CONCLUSION

Going digital is very dynamic step of the BOU Open School and it is also a big challenge for the University as a whole. This attempt will advance the School activities and will generate a digital learning environment for the learner's confidence to compete in the digital world. Digital vision has turned Bangladesh education system into introducing the e-Education. Therefore, the Open School has been the one of the contributors in achieving this goal. Learners are also prepared to cope with the digital decision of the School. The SLMs prepared for the learners are very handsome to them as well they demands for the DLMS to complete their learning.

REFERENCES

- Ding, X. (2002). *Distance higher education in the digital era*, Plenary Address at the 16th AAOU Annual Conference, Seoul, November 5-7.
- Chen, Y.-J., & Willits. F. K. (1999). Dimensions of educational transactions in a videoconferencing learning environment. *The American Journal of Distance Education*, 13(1), 45-59.
- McDonald, J., & Gibson, C. C. (1998). Interpersonal dynamics and group development in computer conferencing. *The American Journal of Distance Education*, 12(1), 7-25.
- Rahman, M. M. & Panda, S. (2008). *Study on Policy and Advocacy Initiatives of UNESCO for Promoting Low-Cost Media and Technology to Support Distance Education in Bangladesh*. Report & Proceedings of 14th Annual Conference of Indian Distance Education (IDEA): IDEA 2008, 14th to 16th November, 2008. Institute of Distance and Open Learning, Gauhati University, Assam, India.
- Open School (2009). *Higher Secondary Certificate (HSC) Prospectus*. Bangladesh Open University, Gazipur.
- Ministry of Education (2010). *Secondary Circulars*. Available at: http://www.moedu.gov.bd/index.php?option=com_content&task=view&id=407&Itemid=405
- Karim, M. A (2008). *E-Learning & M-Learning in Bangladesh: Hopeless state to Dreamworld!* Available at: <http://mskhalid.wordpress.com/e-learning-m-learning-in-bangladesh-hopeless-state-to-dreamworld/>

Annexure A

QUESTIONNAIRE INSTRUMENT USED BY LEARNERS

My Experience during the use of HSC program of the Open School of BOU

Name: _____

Directions:

The responses to each statement in this survey involve circling a number between 1 and 5. Thank you for taking the time to complete this questionnaire.

Read each statement carefully before deciding how well you agree with each statement:

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Note: Your responses to this survey will remain confidential.

1. The textbooks encouraged me to read it for completing my learning.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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2. I sometimes bored for too much content in the texts.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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3. I used some of the learning materials like CD, internet in addition to the BOU texts for my learning.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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4. I found easy solution of the difficult content while using ICT.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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5. I had a good talk with the tutors over the mobile.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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6. I watched BOU TV program regularly.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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7. I desire texts were supported with video clips.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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8. I desire interactive video as learning materials

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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9. I have internet connection at my home.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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10. I go regularly in the cyber café.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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11. My friend has the Internet where we can have the group study.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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12. I felt that I needed more ICT materials to understand the content.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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13. I find TV-programs more interesting than real life classroom at the tutorial centre.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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14. I believe that I would if my study materials reflect the ICT aspects.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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Comments: (Optional)

Thanks once again for your participation!