Access and equity in Open Education Resources: E-learning for girl and women in Bangladesh Open University.

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ABSTRACT : Open Educational Resources are freely accessible, usually openly licensed documents and media that are useful for teaching, learning, educational, assessment and research purposes. E-learning is (website, e-book, cd, DVD etc) latest addition to OER which is accessible through internet and computing systems. Though these resources are 'open' to all for learning, but the socio economic situation of women and girls in Bangladesh is a challenge to take the advantage of e-learning systems. This research has been carried out to comprehend the situation of women and girls in Bangladesh in terms of E-learning, identify the challenges and opportunities of access to E-learning among women and girls and recommend about further improvement of those systems. The research had been consisted of several stages of analysis. Primarily different e-learning systems have been identified and later the contents have been analyzed to explore whether the topics and knowledge are relevant to women and girls. In the next stage, two groups of girls have been selected as respondent groups among which one group has been selected as user group who are currently using e-learning systems, and other group has non-users group. Comparison between these two groups has helped to identify the challenges that some girls face to use e-learning system and to recognize the factors that facilitated some girls to use the e-learning system. In further stage of analysis, information from user's group has helped to explore about the contents that should be included in the e-learning systems especially for women education, which will ensure a gender balance to use the system. At the end, it is expected that the research can recommend two factors; firstly, how these e-learning system could be more accessible among girls/women through increasing knowledge about the systems, and; secondly, what is required to include in these system to ensure equity to use the system and to gain knowledge from it.

INTRODUCTION: Bangladesh has been struggling for education to all for long 43 years. A large number of students and particularly women and girls are still forced to give up their learning for various socio-economic reasons and a major proportion of them remain unemployed. Women in Bangladesh play a central role in family, community and social development though they often remain invisible and unheard. Women more than men have to balance the complexities of surviving in extreme poverty, yet these women are excluded from discussion because they are often illiterate, they lack confidence and they lack mobility. However, with on-going awareness of both the government and Non-Governmental Organisations (NGOs), women literacy rate has been going up. Besides Information and Communication Technology (ICT) offer the opportunities for direct, interactive communication for those who lack skills, are illiterate, lack mobility and have little self-confidence.

Except in upper-income enclaves, access to a computer or the internet for education at home is not a typical phenomenon for most women in Bangladesh. A series of factors including literacy and education, language, time, cost, geographical location of facilities, social and cultural norms, and women's computer and information search and dissemination skills constrain women's access to open educational resources (OER) or e-learning. OER help women and girls overcome some of the challenges they face in traditional education.

OPEN EDUCATION RESOURCES (OER):
Open Education Resources are teaching, learning and research materials. These might be full courses, course modules, educational videos or animations, textbook or interactive contents like games. The all important thing about OER is the right that you- as a teacher, student or anyone are automatically granted to use the educational materials. From a legal standpoint OER are either 1) in the public domain or 2) have been released under a copyright license that permits you to use, customize and remix the work for free.

E-LEARNING- A NEW HORIZON OF LEARNING:
E-learning is the latest edition to OER and has no universally accepted definition. Different authors, practitioners and scholars use the term interchangeably as distance learning, online learning and network learning. Therefore it is used as an umbrella term which means electronic learning that encompasses all forms of technology enhanced learning that gives the opportunity to learn at anytime and anywhere. E-learning can be defined as the use of computer and internet technologies to deliver a broad array of solutions to enable learning and improve performance. E-learning includes numerous types of media that deliver text, audio, images, animation, graphics and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local intranet/extranet and web based learning, audio-video interactivity, glitz and games, social software such as chat, blogs, email, Wikipedia, live webcasting, video and audio conference, application sharing, power-point presentation, internet, websites. It provides the necessary environment and appropriate tools for task oriented, up-to date and continuous learning. It also ensures access to information about education, learning, training, assessment, and research through the use of multimedia technologies.

BANGLADESH OPEN UNIVERSITY:

In Bangladesh about 49 per cent people are struggling to survive as they are living under the poverty line. In addition, Bangladesh has a low literacy rate, estimated at 61.3 per cent for males and 52.2 per cent for females in 2010. The open and distance education is considered to be an important alternative to offer country's aspirant young students an opportunity for education. Keeping this in view the Bangladesh Open University (BOU) has been established to fulfil the educational needs of people. The Bangladesh Open University is the only public university in Bangladesh to use distance education as a method of delivery. It was established in October 1992 with a vision for partial fulfilment of the national commitment 'Education for all' especially for the disadvantaged group of people, using every means of communication technology. To bring education to the doorsteps of the people, BOU is continuing its operation through 12 Regional Resource Centres (RRC), 80 Coordinating Offices (CO) and 1260 Study Centres (SC) throughout the country. The Bangladesh Open University offers two types of programmes—formal and non-formal—through six different schools. The BOU has already launched 26 formal and 19 non-formal programmes.

The following BOU websites are also used as OER:
1] **www.bou.edu.bd** - A general website with all division, school (academic division) and academic information with admission year.
2] **www.bou.ac.bd** – This website is used to publish examination result.
3] **www.bou.ac.bd/ebook** - It contains all electronic books for learners.

Programme Delivery System in Bangladesh Open University:

- ✓ Printed Self Learning Materials (SLMs).
- ✓ Through tutorial sessions in the tutorial centres.
- ✓ Audio and video programmes.
- ✓ Course materials on CD-DVDs.
- ✓ BOU Programmes telecast on national TV and Radio.
- ✓ Internet-course materials are available on BOU website.
- ✓ E-books are available in website.

RESEARCH OBJECTIVE:

E-Learning has enormous prospects for girls and women in Bangladesh. For successful deployment of e-Learning in Bangladesh as a modern teaching and learning method, we need to measure our readiness both quantitatively and qualitatively. In this paper we have examined the status of E-Learning readiness and current situation of e-learning in Bangladesh. Several components of e-Learning readiness are analyzed and discussed in the light of successfully e-Learning evolved female students along with students still deprived of this resource. This research has been carried out,

- ❖ To comprehend the situation of women and girls in Bangladesh in terms of E-learning,
- ❖ To identify the challenges and opportunities of access to E-learning among women and girls, and
- ❖ To recommend about further improvement of those systems

Depending on the analysis the study has proposed some useful recommendations to be implemented for government, society and education for establishing successful and sustainable e-Learning systems for girls and women.

- ❖ Firstly, how e-learning system could be more accessible among girls/women through increasing knowledge about the systems,
- ❖ Secondly, what is required to include in these system to ensure equity to use the system and to gain knowledge from it.

The study also aims to develop a better informing of the process to use OER in order to support curriculum development (particularly in social science domain); an exploration of pedagogical issues in relation to using OER; work with students to evaluate and reflect on use of OER in curriculum development, precisely in increasing engagement for particular curriculum issues.

RESEARCH METHODOLOGY

Practice and implementation of e-learning systems is still in it's infancy for Bangladesh and particularly for the girls and women. Keeping this in mind the study seeks to find the push and pull factors that hinder aspirant girls and women to use e-learning systems as well as positive and effective aspects of this system. The research also aims to reveal prevailing progress of country's e-learning systems as teaching and learning process for the students. This research involved the female students of BOU those who are currently continuing their study using open education resources. The study includes all the female students irrespective of caste, creed, color, religion and age including both direct beneficiaries of e-learning and those who are deprived of it. Thus the research applied a mix method approach- both qualitative and quantitative methods.

Stratification:

The survey was conducted in two different methods among a total of 200 female students of BOU studying in different programs. The methods followed for the survey are:
1] Personal/ face-to-face interview &
2] Telephone interview.
The required (150) number of respondents to conduct personal interview were selected randomly from the study area. The enumerators went to each of the female students personally with a prepared quantitative questionnaire and filled it by them with necessary information. On the other hand rest of the respondents (50) was interviewed over telephone with same set of questionnaires by the enumerators.

Qualitative data collection:

The qualitative research was undertaken including interviews of both the beneficiary and non-beneficiary female students. The qualitative methods were used following the survey conducted among the students. Based on the quantitative survey results 06 Key informant interviews (KII) and 02 Focus group discussions (FGD) were documented to have an in-depth understanding of research questions as well as the research objectives. Key Informant Interview (KII) and FGDs were conducted with the students to obtain their reactions, opinions or ideas about e-learning systems. These were ideal tools to collect relevant data portraying the reasons why e-learning system was an effective option for learning to some students and why others are still struggling to get into this method. Moreover, current literature was also reviewed to get an idea on currently running open education resources and practices, which are thought to be best. Consequently it was possible to compare the literature and the real situation.

Table: 1 Qualitative research tools

No.	Category	Type	Tools	Quantity	Comments
1	Female students	Beneficiary students	FGD	1	
2		Non-beneficiary students	FGD	1	
3		Beneficiary students	KII	3	
4		Non-beneficiary students	KII	3	

KEY RESEARCH FINDINGS:

E-learning as a method has been introduced basically because of increasing scarcity of teacher and trainers, rapidly increasing education cost and growing demand of technology based education. But access to OER or E-learning facilities is not commensurate with the capacity building and modernization process of Bangladesh Open University (BOU) and also not congruent with the long term objective of the institution regarding facilitation of continuing education satisfying the temporal and spatial constraints. Under the circumstances the study was conducted among 200 female students currently studying in BOU with access in program delivery system of BOU. Regarding the methodology applied in order to accomplish the research, opinion of the respondents could be discussed into two segments:

1] Effective aspects of OER (beneficiaries)

2] Non-effective aspects of OER (non-beneficiaries)

EFFECTIVE ASPECTS OF OER:

The study implies that 40% of the respondents are familiar with e-learning system and using open education resources for the educational purposes in their daily life. This study group has precisely mentioned following usefulness of OER:

1] E-learning has enhanced the scope of students to learn more through access to the resources whenever possible and required. Various components of e-learning have opened the door to collect necessary and reliable information and gain knowledge accordingly.

2] Students can use technology for a better and smooth understanding of specific educational course material and learn more comprehensively. Innovative and dimensional ideas and theories are emerging because of access and relevant use of e-learning systems.

3] They can collect admission forms from the websites of BOU along with tutorial timeline, admission guidelines and other necessary information. Websites are used as source of information apart from BOU office.

4] Students can communicate directly with their teachers or tutors at due time through email and telephone. It has helped to obtain necessary and relevant educational documents and information with in the shortest possible time staying away from the campus.

5] It has also helped them to collect the result of their examination at any time from any place. Since it often turns out difficult for women to stay out of home due to social and family constraints, proper utilization and practice of e-learning methods could be a case-sensitive issue for their educational attainment.

6] E-book has emerged as an instant and collective option to obtain book oriented knowledge. Students can also collect their course materials through e-book in due time.

7] BOU has added a new dimension in teaching and learning method by broadcasting different educational programs in TV and radio chunk with the help of Bangladesh government. Students can maintain and continue their education following the radio and TV broadcasts of BOU educational programs which has made a significant role in terms of ensuring women education in Bangladesh.

NON-EFFECTIVE ASPECTS OF OER:

The study implies that to 60% of the respondents OER cannot make the proper response as it expected to be. They have found it difficult to use e-learning systems in terms of their educational progress and attainment. The study shows that following constraints are faced or foreseen in terms of e-learning by this group:

1] Most of the students lack of internet and online facilities. Access to internet at home is still costly and there is little awareness about using internet among the students as well as teachers and parents.

2] Extremely low bandwidth of internet and limited facilities (only email in most of the cases). Except email other options like browsing, e-book, chat, discussion forums, blogs, email, Wikipedia, live webcasting, video and audio conference or application sharing are still out of reach to the female students due to unavailability, high cost and lack of awareness on how to utilize these facilities.

3] Most of the students lack of computer and computing systems at home. Access to computer is still considered costly to afford and our educational system is still far away to create a computer oriented education for the students that has made them less dependent on computer.

4] Most of the students do not have basic computer skill. Inadequate skill to use computer is one of the major constraints in access to e-learning.

5] The course materials do not reach into the hands of students in appropriate time due to the socio-economic condition. Female students has to work at home or office and cannot reach the classes in due

time to collect course materials. Websites, email, Google drive or drop-box and other related internet facilities could be suitable alternative to this in terms of collecting course materials but these facilities are still unreached to them.

5] The students cannot be present at the tutorial center due to existing socio-economic condition. It is inconvenient for most of the students to stay away from home and accommodations are also expensive. Besides for some of the students it is difficult or impossible to be away from work.

6] The scheduled time table for broadcasting radio and TV programs on BOU educational materials does not match with the study hour of the students.

7] Students cannot use the technology of online interactive classroom which is essential for this sort of open ended teaching and learning initiatives adopted by BOU.

8] Reaching course materials to the students is a problem due to delayed publishing of books but e-books are also not available for them.

RECOMMENDATION:

E-learning has a very distinct role to play in the context of scarcity of resources in developing countries. Here it is worthy to mention that e-learning or OER is not supplementary to conventional learning methodology rather complementary to the conventional system. It has become a feasible tool for facilitating for a wide spectrum of participants using a variety of technologies. Despite technological limitations, e-learning can be successfully implemented in developing countries like Bangladesh. Apparently the goal of introducing e-learning systems is to lessen the gap between the digital divide, thereby reaching all communities of society. Among 200 study participants a total of 153 of them have welcomed the concept of e-learning, where participants could learn at their own time staying within their own premises. The study recommends following suggestions to achieve the goal of e-learning:

- Enhance women literacy level and uplift their entrepreneurial skill.
- Government should allow BOU suitable chunk to broadcast BOU programs.
- Access to internet facilities should be easier for the students and computer literacy should be mandatory for all.
- Mass media needs to upright the position of women in ICT sector all the more through advertisements, cartoons, telecasting and broadcasting, all this projects female awareness in society.
- Recognize the benefits and take steps to grow confidence through success stories of e-learning using.
- Government should take the necessary steps to develop proper ICT infrastructure required for e-Learning.
- Society should take positive attitude to adopt innovating technology and thinking such as e-learning.
- Activities should be taken to increase self-awareness.
- Introduce ICT as a tool for improved teaching and learning experience for women.
- Develop curriculum and content for e-Learning in native and easy language for an easy access and better understanding for girls and women.
- Course material should be presented on CD and used for self-study.
- E-mail should be used for disseminating information about the course, assignment and course upgrades. It should be mandatory for all participants to have an e-mail address.
- Arrangement of workshops to facilitate experiments and hands-on training is essential for e-learning.

In order to facilitate a gradual transition from conventional classroom-based learning framework to e-learning without compromising the quality of education provided by close classroom interaction it is required to design a hybrid mechanism for teaching and learning which is pursued by many academic and training institutions in the developed countries.

CONCLUSION:

Open educational resources have the capability to overcome many problems associated with traditional classroom-based learning framework. Considering the rapid expansion of the usage of mobile communication devices in the country, development of technology and reduction in cost, a well-designed e-learning framework is expected to contribute significantly to educational development and thereby having a long term effect on women education as well as poverty alleviation in Bangladesh. So a developing country like Bangladesh needs to reframe the e-learning mechanism to reach the unreached. Despite having the potential to contribute in the educational advancement of developing countries, e-learning needs to be designed carefully for the girls and women to overcome the technological and infrastructural limitations. Successful implementation of e-learning facilities has a long term effect on educational paradigm of any institution. Facilities for communication with the instructors should be available and special attention should be provided to ensure interaction and communication. In developing countries like Bangladesh, infrastructural limitations are required to be considered carefully which include lack of computers, technical assistance for maintenance and availability of electricity. In this regard it is worthy to supplement the course materials with hard copies. Such initiative will also assist in making the program more practical as it is usually suggested that reading of printed materials is easier than the same for the electronic documents.

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