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Eliminating Illiteracy by Integrating ICTs in CLCs: An Innovative Lifelong Learning Approach in Bangladesh

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Abstract

This study represents an assessment of educational use of Information and Communication Technologies (ICTs) in Community Learning Centers (CLCs) in Bangladesh. As ICTs had achieved some progress towards removing illiteracy during last few years, thus ICTs extended potentials to deliver basic education and continuing education services for illiterates throughout the country. It can play an important role in attracting people towards education through application of up-dated and sophisticated devices and tools like ICT based education. The specific objectives of the study were to: identify the types of ICT tools exits in the Community Learning Centers; find out physical-infrastructure available to facilitate or enhance ICT uses; determining the age and gender profile of ICT users; assess the English language skills of ICT users; and describe the profile of ICT facilitators. A sample of 10 ICT centers from 4 districts run by different NGOs were chosen for conducting the survey. The data were collected through: (i) Structured interview; (ii) Interviewing school teachers and local key informants; (iii) Focus group discussion sessions (users, beneficiaries, members of each center). The danger of a growing digital divide, there is also a growing knowledge divide. There are striking disparities between rich and poor countries in their investment and capacity in science and technology (S&T). The poorest regions of the world have the lowest access to information and communication resources, but they can also leverage opportunities for leapfrogging as the dynamics of a knowledge-based economy are better understood. The expected outcome of the study is to ensure Lifelong Learning in Bangladesh for eliminating the illiteracy by integrating ICTs in CLCs.

Keywords: Illiteracy, Information & Communication Technologies (ICTs), Community Learning Centers (CLCs), Lifelong Learning (LLL).

Introduction

Literacy is the building block of lifelong and 'lifewide' learning. The question is therefore what policies and institutional arrangements need to be put in place at both the Ministry and community levels to promote multi-sectorial involvement in lifelong learning. This implies that literacy must respond to poverty, gender equality, HIV/AIDS, violence against women and inter-ethnic violence, environmental degradation, and other areas of sustainable development. In the context of Bangladesh, as it has achieved some commendable progress towards removing illiteracy during recent years, ICT has got extended potentials deliver basic education and continuing education services both for illiterates and neo-literates. It can play an important role in attracting people towards education through application of more up-dated and sophisticated devices and tools like ICT based education. Application of diversified audiovisual impacts is expected to strengthen learning outcomes and the easy to repeat feature of the ICT based learning process contributes towards its reinforcement highly. It is also expected that after an introductory period, the learners particularly the neo-literates, can successfully enter in to a self –learning phase with no or minimum aid from the facilitators. Use of ICT has also maximum potential to increase diversification and flexibility of materials and contents.

The World Bank World Development Report (1998-99) has developed an analytical framework emphasizing the complementary role of four key dimensions to help countries articulate strategies for their transition to a knowledge-based economy including: economic and institutional regimes, educated and skilled populations, information infrastructure, and national innovation systems.In the 21st century, workers need to be lifelong learners, adapting continuously to changed opportunities and labor market demands of the knowledge economy. Lifelong learning (LLL), therefore, is not a luxury for any country. Education systems in all countries will have to evolve in that direction.The

objectives of World Bank supports a program on lifelong learning and post-basic education which includes not only exploring ways of increasing the quality and coverage of secondary and tertiary education, but also improving the policy framework to encourage a diversity of institutions, programs, and procedures that permit all people to access education- whether to upgrade their skills for the world of work or simply to satisfy a wish to learn. As a knowledge institution, the Bank looks for ways to better share knowledge with its clients and partners, and to increase the ability of client countries to access and use knowledge.

In many traditional societies of the Pacific Island Countries (PICs), the learning context for the people is life in their homes and communities. People learn by living their role-specific tasks and responsibilities. We actively learn and grow into knowledge. More important, we learn by keeping close to village elders and people of quality [1]. They are the repositories of traditional knowledge and provide guidance and training. So education in the community is largely aimed at continuing the social order and maintaining the status quo [6]. In a country like Bangladesh with low literacy rate and widespread poverty, it is a big challenge to bring a visible impact of non-formal education programme in the life of the neoliterates. Without adequate provision of retaining the newly acquired literacy skills by the illiterates, the danger of losing much of the impact of literacy skills is always there. One of the devices to retain the literacy of the neo-literates, particularly the adolescents and the adults, who do not intend to enter into the formal system of education, is organizing multi-purpose community learning centers at the doorsteps of the neo-literates. Again, to offer opportunities for continuous updating of knowledge and life-long learning, there is need for institutionalized education and information support services in the society. Some NGOs are started to meet these needs.

In the formal education sense, lifelong learning (LLL) is broad-based, encompassing education and training in both the formal and informal sectors [7]. It is broad in character, extensive in coverage and diverse in content, methodology and participants [3]. The most commonly understood role of LLL is the provision of alternative education to individuals who have left school and require training for gainful employment. Some may have left without attaining the necessary school-leaving certificates and need some bridging course to fill important gaps and bring them up to standard. Others may be already employed but wish to acquire new skills to keep abreast with new times, new knowledge and new development.

In support of the EFA Goals, the (Pacific) Forum Education Ministers' Meeting (FEdMM) in 2001 had placed emphasis on skills development in all forms of education and training. EFA Goal 3 that referred to 'ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programs" included education for employability. Teasdale [5] suggests that lifelong learning services and effective lifelong approaches that emphasize the development of life-skills and livelihoods can actually work to strengthen the closer articulation between the different levels of education - primary and secondary school as well as secondary school, TVET and the world of work. An important thread that needs to be running through the levels is a deep grounding in local cultures and a strong sense of identity.

LLL policies in PICs are at different stages of development and implementation. Already a number of LLL projects and programs are being undertaken by different groups like NGOs, Churches and communities. The Tutu Marist Training Centre in Fiji and the WaanAelon in Majel (Canoes of the Marshall Islands) or "WAM" project of the Marshall Islands are two of the most successful ones [4]. They also resemble the alternative form of open schooling [2]. The MATUA program at Nabua Secondary School in Fiji deserves special mention in successfully providing the conventional school curriculum after hours for out-of-school learners who desire Sixth and Seventh form qualification. The School operates the conventional program during normal school hours and the MATUA program in the evenings; both programs use the same curriculum, are taught by the same teachers, and offer the same examinations.

Continuing & Community Education (CCE), USP: The mission of the CCE is to "deliver excellence in Continuing and Community education that empowers and enables individuals and communities in the region to be able to sustain themselves". The Centre is an important catalyst for change and acts as a bridge between the University and the community. The CCE's role in facilitating the transition to tertiary study in the form of pre-degree studies and programs is a particular strength. The CCE Centers in the regional campuses offer a wide variety of courses and programs that focus on life skills and work-related content. With flexibility and openness in terms of course duration, requirement and study times the CCE courses are very appealing. Generally the duration of CCE courses varies from 10 to

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32 hours of teaching spread over a number of weeks. Courses cover a wide array of subjects such as computer skills, languages, bookkeeping, mathematics, business studies, economics, creative writing, community development skills, literature, handicrafts, floral arts, fabric arts, woodcarving, fine arts, carving, poetry, music, video production, leadership skills, health studies, public teaching, problem solving and general literacy skills. The courses can be classified under four major types: (i) Community ICT Courses; (ii) Business Courses; (iii) Community Livelihood Courses; and (iv) Basic Preparatory Courses. The objective of the study was to conduct an investigation into the situation of ICTs use prevailing at community learning centers (CLCs) in developing countries like Bangladesh. The specific objectives of the study were to:

1) identify the types of ICT tools exits in the Community Learning Centers;
2) find out physical-infrastructure available to facilitate or enhance ICT uses;
3) determining the age and gender profile of ICT users;
4) assess the English language skills of ICT users; describe the profile of ICT facilitators.

Methodology

An assessment of educational use of information and communication technologies (ICTs) were made in existing Community Learning Centers (CLCs) run by two NGOs NariMaitri and Dhaka Ahasania Mission (DAM) ,in the districts of Narsingdi, Tangail, Gazipur and Jessor. However, to get a more representative nature some more CLCs located in other districts outside of Dhaka and run by other NGOs were also included. A sample of 10 ICT centers from 4 districts run by different NGOs were chosen for conducting the survey. The data were collected through: (i) Structured interview; (ii) Interviewing school teachers and local key informants; (iii) Focus group discussion sessions (users, beneficiaries, members of each center). Required data were collected from the field through prepared pre-structured schedule interview. Comprehensive questionnaires were sent to these institutions and in some institutions the researcher himself collected data.The data analysis plan was designed during and after data collection was completed. The collected data were tabulated with the aid of computer software.

Findings

*Physical infrastructural facilities:*From the analysis it has found that the selected community centers enjoyed a better position with respect to their physical infrastructures. Most of them (8 out of 10) reported to have house type as semi-pucca, 40% as full pucca. All of them have electric connections that made them readily accessible to more advanced ICT tools. Also, all of them reported to possess some of ICT materials or other.

*Existing ICT Materials:*Survey has shown that the detail information on ICT materials that already exists in the centers,most of them have important ICT tools like personal computers (98%), televisions (83%), Laptop (60%), Overhead Projector, OHP (35%), Mobile (78%) & Photocopy (13%). Another encouraging feature is that about 30% of the centers having personal computers were found connected to internet. However, only Two-third of the centers surveyed reported to have mobile phones and only two of them reported that they had photocopiers.

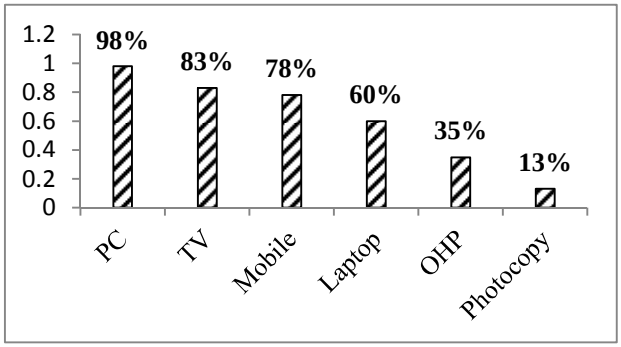

Figure 1: ICT tools available at various CLCs

*Age and Gender profile of ICT users:*It has found from the data reported that both male and female adolescent community members are using the ICT centres equally enthusiastically. On an average each ICT centres are attended and used by more than 300 users. Most of the users were reported to be male and belonged to the 11-18 years age group. However, proportions of female members were remarkably high 45% of the total users were reported to be female.

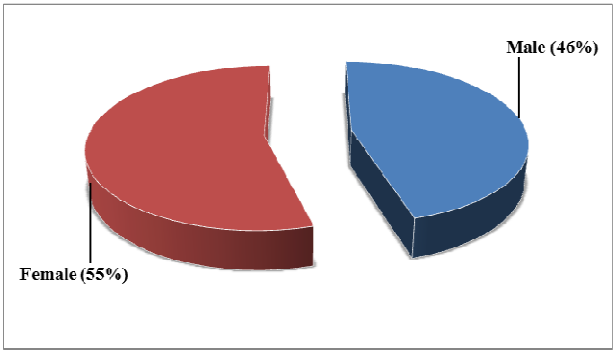

Figure 2: Gender Distribution of ICTs Users

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*English language skill of ICT Users:*English proficiency is essential for effective use of ICTs. It is encouraging to note that about 21% of the users of these ICT centers reported to have proficiency in reading and writing English sentence. One may conclude that it won't be very difficult to build up necessary human resources at least partly, from among them for running future ICT based basic education delivery. It is also encouraging to note that 30% of the users reported to have proficiency in reading and writing English Words, and 98% of the users reported to have proficiency in reading and writing English letters and numbers. This finding also indicates that there exit a large number of neo-literate users ready to receive ICT based further or continued education.

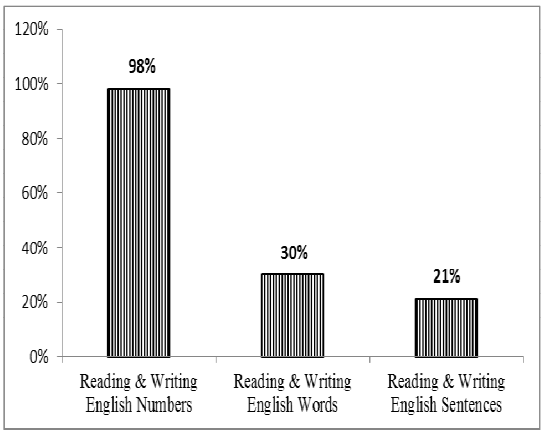

Figure 3: English Language Skill of ICTs Users.

*ICT Facilitators:*It was found that most of the ICT facilitators (70%) were from the local community and the remaining 30% were non-locals as implementing NGOs hired them to facilitate programmes implementation from outside the localities. Majority of these ICT facilitators (60%) was reported to have formal education up to secondary or higher secondary levels (S.S.C. or H.S.C.). However, a number of them (40%) reported to have higher education up to Bachelor's or Master's level, 92% of them also reported to have professional training on computer a six months' Basic Computer Training Course. 17% have Diploma in computer use. So ICT facilitators should be well educated in the field of Computer. They need higher education which can develop the modern scenario of the institutions. One thirds of the facilitators reported to work on part-time basis that is a major constraint against greater utilization of ICT facilities by the interested users. So the number of full time facilitators should be increased. Moreover there should be provisions for specialized training on ICT application in community centres that includes lessons on quick remedial for software and hardware troubleshooting. As none of the current facilitators have training on software and hardware troubleshooting, that's why the use of computer is frequently interrupted.

*Findings from group discussion:*From group discussion it has found that Most of the participants (95%) reported that they had access to lCT tools like computers and TV at their community learning centers. They (90%) also reported to organize these centers mostly locally with the participation of local people and local staffs of the implementing organizations. 33% of the discussants mentioned "Donation from community leaders" as a major source of financing their centers. Most encouraging is to note that about 20% of the discussants mentioned computer training fees as a source of income for running their ICTs.

Users reported a number of benefits that they had been enjoying from ICT centers. Firstly they now enjoyed access to computer and use it for various purposes what they considered an advantage (95%). Because of with the help of ICTs it is very easy to teach as well as very shortest possible time they are able to cover their contents. Their children (90%) now also enjoy similar benefits. And 10% Children are getting benefits from the conventional T-L environments. The factors that stimulating the facilitators in CLCs to use ICTs in teaching learning are: economical (30%), time saving (10%), easy to prepare (5%), attractive (5%), easy to motivate students (35%), easy to administer (3%), communication is easier (10%), easy to integrate (2%). Training on ICT & available ICT tools influence them for using in T-L process. Most of the participants (92%) of group discussion also mentioned that it was also now a source of entertainment for them.

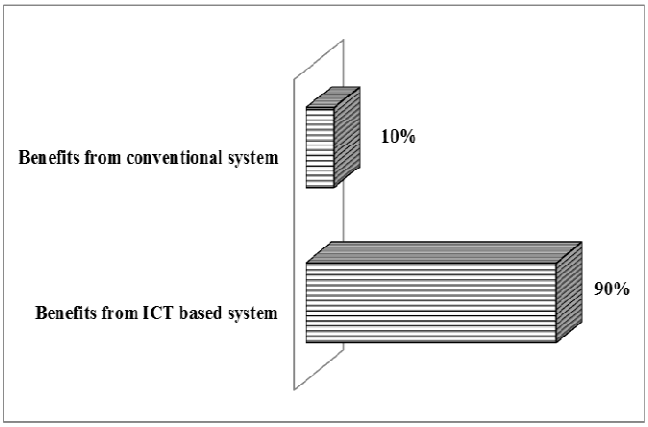

Figure 3: Members of the CLCs Children

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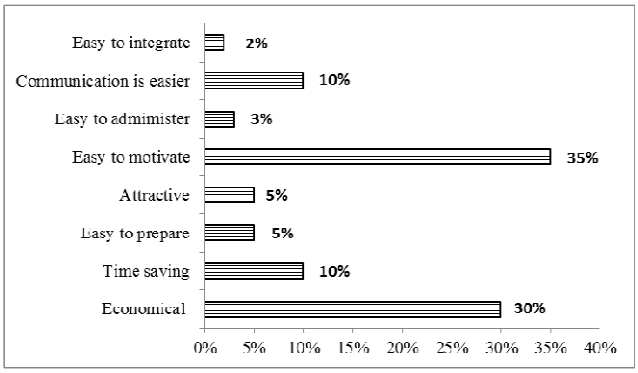

Figure: 4Factors of ICTs stimulating facilitators in CLCs

Regarding problems of difficulties faced 96% of the participants of group discussion mentioned about financial constraints. They opined that they need to mobilize more resources, be locally or from external sources, in order have greater access to ICT tools adequately. They felt that the prevailing quantity of ICT tools is inadequate to serve large number of users. All of the participants also mentioned technical problems that include trouble shooting, both hardware and software. They need human resource and logistic support to overcome such constraints, they mentioned. They also mentioned that they need more ICT based education materials. Specifically, 93% of them mentioned that they would like to receive skill development training using ICTs.

Regarding prospects of ICT at community level the participants of group discussion opined that its use should create many positive impacts on local socio-economic conditions. Unemployment would be reduce (100%) through creating job opportunities for trainers at local level and through providing training the job seekers outsider the locality. They also opined that use of ICT would also facilitate basic and continued education delivery and attract adults, adolescents and school children.

Discussion and Conclusion

This paper advocates an innovative 'Communication + Information', the lifelong approach to avoid past pitfalls and respond to the challenges of the rights-based environment. The approach, it is argued, will enable responses to unmet challenges in this environment. A cross-cutting approach, in which programmes rather than projects take priority, provides an ideal vehicle for taking it forward. Within this, the complexity of inter-relationships of partnerships must be recognized and given priority. This is not to under-estimate the considerable challenge of getting people to adopt a flexible, cross-cutting, innovative approach as well as overcoming ingrained assumptions and attitudes, and the barriers of fears. The survey findings by this study indicate that the CLCs and CRCs in developing country like Bangladesh are still in a very initial stage of ICTs utilization. They have access to limited number of ICT tools that are inadequate to address the need for large number of users in the locality. They need to mobilize further resources in order to scale up their current level of ICT utilization. Adequate number of ICT tools and trained personnel both for providing lessons and to mitigate trouble shooting locally, are needed to ensure maximization of users benefit. Users' perception on problems and prospects of ICTs use were found to be very distinct. With their reported English language skills, as mentioned above, delivery of ICT based education packages, particularly in vernacular language, is ideal for creating rapid and more effective outcome.

In the light of the findings of the study a set of recommendation were made on how to implement an ICT based programme of basis and continued education delivery through rural community learning centres more effectively and successfully. These are as follows: (i) Adequate supply of ICT tools and facilities can ensure large number of users for effective use of ICTs; (ii) Facilitators should be increased, they should be employed full time on payment basis and specialized training on use of ICT based education delivery and computer troubleshooting is required for the facilitators. There should be a process of internal training for developing a number of co-facilitators from among the advanced users; (iii) Supply of sufficient materials and contents, based on ICT, for basic and continued education must be ensured; (iv) Materials on specific issues like skill development water and sanitation; HIV/AIDs, social awareness etc. should be developed; (v) To get maximum outcome from these materials, vernacular language should be used as medium of instruction; (vi) To overcome problems of inadequate ICT tools, human resource and material needs, drives for resource mobilization must be scaled up. Need of external assistance can't be undermined but potentials for local resource mobilization should be utilized fully. It was found that use of ICT has created much interest in the community. There are reasons to believe, therefore, that drive for local resource mobilization would be a success; (vii) CLCs should develop an ICT networking among themselves and with other GO, NGO and various educational and other organizations at different levels. Exchange of information, technical expertise and materials would be facilitated through such a network; (viii) A process of in-depth and continued research should be initiated for designing a successful model of

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ICT based non-formal education for implementing through CLCs in developing Bangladesh.

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