

DISTANCE LEARNING IN MODERN TECHNOLOGY

Mollika Hamira

ABSTRACT

Open and distance learning is getting more dependent on information and communication technology (ICT) and has been playing an important role in the delivery strategies of distance learning. With the advancement in technology in the field education has introduces variety of new techniques for educators and learners to enhance knowledge. Educational technologies (information and communication technology) are replacing direct teacher-student interaction. Anything that helps distance learners to communicate: learner with instructor, learner with learner and learner with the learning materials may be term as information technology. Technological advancements especially in the area of ICT allow teachers to employ various strategies that could actively engage student's interest. This paper focuses the role of information and communication technologies (ICT) in open and distance education. This study also explores technology-based media which is very important for distance learners.

Introduction

Today knowledge and information are the main keys of obtaining the productivity, competition, wealth and comfort. So countries have concentrated on approaches for increasing the gaining of better-quality education. In order to develop the human capital, it is necessary to look at our schools and education and see if our education is progressing in step with the world that is changing and developing quickly. The problem is that if we compare the modern world with the last-century, we are confronted with dazzling developments of sciences, business, medical services, communications and many other fields. But visiting the schools, we, surprisingly, see no difference. between the contemporary classrooms and the last-century ones; students sitting in rows, holding pencil and paper, noting down hurriedly what the teacher is saying and writing so that they know them by heart and give them back at the time of test quickly. This is while many matters have been changed through the sciences and technical development, but education and the students learning methods and the teachers.

Teaching methods have remained unchanged

[1] The international society for technology in educational (ISTE)* emphasizes that the teachers of today should prepare to provide technology-based learning opportunities for the students. In fact, preparation for applying the technology and awareness of technology to enhance the quality of

the students learning should be one of the teacher's basic skills. In most parts of the world, the most effective forward leap has been for applying IT (information Technology) in the higher education since 1990 .

By considering that education has been using the technology for expanding and developing different processes of the educational system more than one century [8], it is not surprising that new technology arrival has raised the interest in obtaining knowledge by various methods of presenting knowledge. Today technology-base education is attainable at the universities of developed countries. Smart schools have made a leap in virtual learning. On-line learning and remote training are among new education forms in the new century . By evolving the learning environments at the beginning of 21st century, individuals and societies put heavy responsibility on the shoulder of educational institutions and their traditional structures by their increasing need of education. Today various informational and communicational technologies have the ability of facilitating the education and learning process . Also there is an evidence stating that information technologies provide effective and inflexible methods for professionally developing teachers . Beauchomp & Parkinson, in a study under the title of «The students view of sciences during transferring from rich technology environment at the elementary course to the high school with low technology equipment» concluded that although the

high school students were annoyed by insufficient access to computers and other information technologies, they enjoyed the course by the efforts of sciences teachers. Most major properties of the education system in information and

communication age are:

1. In new education, what is worthy of knowing and what is necessary is stored. Not the learning of all information.

2. In new education, the teacher helps the student to obtain, select, evaluate and store the information by the use of vast scope of sources. Printed magazines and books are knowledge sources; The drafts determined for writing and publishing are replaced by online books and magazines.

4. Some advantages of using technology and IT in the Education: students learn their lessons by using technical tools in less time .

By the use of information technology and its tools especially computer and planning modern tutorial programs such as virtual tutorial program, possibility of expediting the process of information dissemination, various recognizable and repeatable learning sources, more flexible structure, information search and also possibility of metacognitive understanding have provided for students, and they can use this device as a tool for their educational activities so that this matter has raised the speed and quality of learning significantly [18]. High flexibility in when and where students and teachers perform their duties [19]. Informational society; where economical, cultural and social life is dependent on information and communication technology.

Advantages of Informational society:

1. Enriching spare time
2. Enabling teleworking.
3. Providing new opportunities for raising national productivity and competitive atmosphere.
4. Increasing employment.
5. Life-long education.

Methodology.

The proposed paper mainly is descriptive-analytical in nature. Relevant books, articles and newspapers are used in this paper. Data and information are collected from the concern sources as per need to strengthen my research. Interpretative approach has been followed in this research.

Traditional needs stimulating distance education for teacher education.

Distance-delivery methods for teacher education are well established throughout the world. For over 30 years such methods have been in formal operation (see Perraton, 1993, for a comprehensive overview). In many countries, distance-education methods were taken up in order to rapidly expand the teaching force in response to public demands for more schools and teachers. The establishment of the Open University in the UK in 1969 led the way to legitimatisation and institutionalization of distance education as a higher-education delivery method; now many such formal institutions exist worldwide.

Motivations for distance-delivery of teacher education.

Ministries of Education have supported distance-delivery methods for teacher education for at least three general reasons: (a) to reach students who could not otherwise attend traditional training, thus adding more flexibility of location to teacher education; (b) to reach students who cannot or do not wish to attend full-time training, either because of already being in the work force, or for family or personal reasons, thus adding more flexibility of time to teacher education; and (c) to, at least in theory, introduce economies into teacher education by reducing overhead costs. Teacher-training institutions in many countries have had similar motivations for introducing distance-delivery methods, and have had the added motivation of hoping to tap a broader base of students in the process.

Thus, distance-education methods have:

...been used in rich and poor countries, for experienced and inexperienced teachers, at primary, secondary and tertiary levels, to provide a general education and to improve pedagogical skills, to overcome what was seen as a short-term crisis and to serve as part of a regular system of continuing education (Perraton, 1993, p. 3)

Various delivery methods for distance education.

Distance education is traditionally defined as an educational process in which a significant portion of the teaching is conducted by someone removed in space and/or time from the learner. Historically, most distance education, not only for teacher education but more generally, uses the method of sending printed lesson materials through the mails to the students, who work in a predominately selfstudy manner to complete activities based on the printed materials. Typically then the student mails the materials back to a tutor, who reviews them and

provides some form of feedback, again often through the post. However, many variations on this general model exist and are increasingly present in distance education. Some variations are organisational, in terms of intermixing some face-to-face contact among students and tutors with the self-study periods. Other variations relate to the addition of communication and interaction possibilities outside of face-to-face contact, most typically via the telephone but also through local "study center" support in which helpful humans are available, although probably not one's tutor or classmates.

A large area of variation in the method of distance education is that of the instrumentation or learning materials being used to support distance learning. Many distance-delivered programmes that started with only print as a delivery medium quickly augmented their learning materials to include audiotapes, videotapes, computer software, and learning kits of specialized equipment. Experience quickly proved that distance-delivered teacher education that relied on a single medium "were most likely to fail and to be closed down" (Brophy & Dudley, 1982). A major need in distance education is that of providing human communication and interaction as well as well-designed learning materials. Thus communications technologies have gradually become established as part of the delivery infrastructure of distance education. Duning, Van Kekerix and Zaborowski (1993) note the following five phases of technologies in support of distance education:

Phase 1: Print (correspondence)

Phase 2: Print and audio (radio, audioconference, cassette)

Phase 3: Print, audio, and video (television, satellite, videoconference)

Phase 4: Print, audio, video, and computer (computer-assisted instruction, electronic mail)

Phase 5: Blend of technologies

In the next section we look the current position with respect to communication technologies from a perspective different from the historical one underlying the above list.

Communication technologies and distance delivery of education -

Traditional forms of communication and their support technologies.

In general, in a distance-education situation, communication can be thought of relative to who and how many persons are wishing to talk to each

other, and if they wish to be talking at the same time. We can define this as one-to-one, one-to-many, or many-to-many patterns of communication. The communication can be synchronous, (that is, occurring at the same time and interactively for all participants) or asynchronous (occurring at different times for different participants). Thus, two persons talking on the telephone is a common example of one-to-one synchronous communication, while a tutor leaving a message on a telephone answering service for any student who calls in that he is not available but that the next assignment is due a week later than originally announced is an example of one-to-many asynchronous communication.

Broadening the range: current forms of communication and their support technologies.

There are many other dimensions upon which modern communication in distance education settings can be categorised:

We can communicate by voice or sounds (audio); by text; by pictures, graphics, video, and television; and by combinations of these. Thus modern communication technologies allow the passage of different media or combinations of media over a distance. Pictures, sounds, text, even some amounts of video, can all be converted to a digital form, which means that they can be sent from computer to computer. In addition, different combinations of communication technologies can be used in tandem: two-way audio connections (such as via telephone lines) can be combined with television-broadcast of video, and/or with interconnected flows of computer data. Thus individual or groups can communicate via text and/or visuals and/or sound synchronously or asynchronously, depending on what communication technologies are available.

Furthermore, the boundary between communication and information is now an overlapping one, as what one reads on one's computer screen may be the typed message from a classmate or tutor or a document from a set of resources provided for the distance-delivered learning situation or a document from a library or data base. Also, the way the signals are transmitted or carried can vary, in dimensions such as terrestrial (cables and wires) vs broadcast; or bandwidth. There are now a large number of books and other references on communication technologies and their application in distance learning; as an excellent summary, see Van Den Brande, 1993. In this report, we shall only select a subset of possibilities. In addition, our focus will be on this subset's application to teacher education

rather than on their technical characteristics.

LEARN: Comprehensive Support of Distance Education.

LEARN is a Network Service offered in cooperation with the Royal Danish School of Educational Studies and Computer Resources International. LEARN provides a number of facilities which make it easy for students, tutors and administrators to perform distant education. From the student's point of view, LEARN is seen as a software package which makes it easy for the student to get and send mail, assignments, and other course materials; which includes an integrated text editor for editing responses, notes, and e-mail; which offer menu-driven access to various filehandling tasks; and which support a BBS and various communication options. Students study off-line. From the tutor's point of view, LEARN is an environment in which it is easy to add and take away materials and edit the BBSs. From the administrator's point of view, LEARN offers facilities to register students, teachers, courses, enrolments, available materials, etc., on the host. The general model for LEARN is: retrieve material on-line, logoff and work off line on materials? go back on-line to send materials back or discuss the materials. Six in-service courses are currently taught with LEARN support (Larsen & Malmbers)

Conclusion.

Education is the elementary right of human being for the development of a person both professionally and personally. With the emergence of technology especially in the field of open and distance education have opened a new horizon for distance learners. Application of technology in education is not the ultimate goal; instead, we should use it to pursue quality. Information and communication technologies (ICT) are potentially powerful enabling tools for educational change and reform. Rapid advances in information and communication technology pose new opportunities as well as challenges for every society. In the education sector, ICT has enormous potential to help countries address issues of access to learning, quality of the teaching-learning process and management of education systems. In order to ensure the quality of education, the distance education institutions must be careful about the use of proper technologies and media. We have to think the uses of media and technology in regard to appropriateness and acceptability in the society as well as on the ability of the institution offering the program. The socio-

economic and cultural background of a person influences their ability to learn from different media technology. Effective combination of media and technology is necessary for assuring effectiveness of the open and distance learning system.

References.

Collis, B., Veen, W., & De Vries, P. (1993). *CISO: Recommendations for an on-line service for Dutch education*. The Hague: PTT Netherlands.

Comes, J. F., & Kirkwood, J. J. (1992). *Electronic information files and resources assist students and teachers: One day to organise and present a topic*. In N. Estes & M. Thomas (Eds.), *Proceedings of the Ninth International Conference on Technology and Education* (pp. 1334-1336). Austin, TX: Morgan Printing.

Delmartino, M. (1993). *Teacher education and the ERASMUS Programme*. Brussels: ATEE. Duning, B. S., Van Kekerix, M. J., & Zaborowski, L. M. (1993). *Reaching learners through tele communications: Management and strategies for higher education*. San Francisco: Jossey Bass Publishers.

Bates, A. W. (1995). *Technology, Open Learning and Distance Education*, London: Routledge, 29-31. Bates, A. W. (1991). Interactivity as a criterion for media selection in distance education: *Never Too far*, 16: 5-9.

Barden, R. A. (1996). "The case for linear instructional design and development: A commentary on models, challenges and myths" *Educational Technology*, 2, 5-23. Christina, S. (2001).

The Use of Information technology for the management of Education in Singapore, Commonwealth Secretariat, London, United Kingdom. Coble, W. (1996). *Tele-learning: Deconstructing Courses*. International Conference on Technology and Education, New Orleans, Louisiana, USA, March 17-20, pp. 416-18.

Haddad, W., & Drexler, A. A. (2002). (eds) *Technologies for Education: Potentials, Parameters, and Prospect*, Washington D.C.: AED, Paris UNESCO. Moore, M. G., & Kearsley, G. (1996). *Distance Education: A systematic Approach*, Belmont, CA, Wadsworth.

Moore, M. G. (1989). *Distance Education: A learner's System*, *Lifelong Learning*, Vol. 12, No. 8 pp 8-11. 168.

J. Henson and R. umana, *The new communication technology in developing countries*. Publisher: Lawrence Erlbaum Associates. Place of Publication: Hillsdale, NJ. 1990. W. Hadid and S. Jurich, *ICT for education ; potential and potency*. 2000

M. Ataran, *globalization, information technology and training*. Institute for Cultural Research, aftabemehr, tehran, p. 23. 2002.