# ASSESSMENT OF USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG GRADUATES OF ALLAMA IQBAL OPEN UNIVERSITY

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**ABSTRACT**

*The paper reports findings of the study conducted to examine the use of ICT in working environment. It was descriptive study. 132 graduates of Allama Iqbal Open University participated in the study. A questionnaire was used to collect data. The study revealed that most of the graduates faced obstacles in the use of ICTs. It was further revealed that graduates had low proficiency of using computer hardware. The study recommended that Educational managers to encourage use of ICT and facilitate teachers in using computers, internet and online resources.*

**Key words:** Information and Communication Technology; Assessment; Allama Iqbal Open University

*INTRODUCTION*

Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. Understanding ICT and mastering the basic skills and concepts of ICT is becoming a part of the core of education, alongside reading, writing and numeracy in many countries. The role of Information and Communication Technologies (ICTs) in the educational institutions is becoming increasingly prominent for both because of the need for students to develop skills that will empower them in modern society and because of the potential value of such technologies as tools for learning.

One of the challenges facing teacher educators is how to ensure that perspective teachers have the necessary combination of required skills and pedagogical knowledge that will enable them to both effectively use today's technologies in the classroom as well as continue to develop and adapt to new technologies that emerge in the future.  ICT has great potential for achieving teaching and learning outcomes.

The realization of this potential depends much on how the teacher uses the technology in an effective way. This would in turn depend, among other things, on the kind of training that the perspective teacher has undergone. Shavinina (2001) argues that the importance of ICT is quite evidence from the educational perspective. Though the chalkboard, textbooks, radio/television and film have been used for educational purpose over the years, none has quite impacted on the educational process like the computer. While television and film impact only on the audiovisual faculties of users, the computer is capable of activating the senses of sight, hearing and touch of the users. ICT has the capacity to provide higher interactive potential for users to develop their individual, intellectual and creative abilities. The main purpose of ICT consists just in the development of human mental resources, which allow people to both successfully apply the existing knowledge and produce new knowledge. According to Directorate General of Education and Culture, there is an increasing awareness amongst educationalists, researchers and administrators that the introduction of the new media into educational institutions calls for a change in learning and teaching patterns.

According to Warlick (2005), the need for continuous access to information and knowledge makes learning lifelong and the traditionally neat distinction between learning and work unreal. Education thus becomes a continuum, with no marked beginning and end, which provides opportunities for lifelong learning to help individuals, families, workplaces, and communities to adapt to economic and societal changes, and to keep the door open to those who have dropped out along the way. Lifelong learning and training for the workplace cannot be confined to the traditional classroom. It is unrealistic and unaffordable to continue to ask learners to come to a designated place every time they have to engage in learning. To cope with the diversity, complexity, and changing demands for education services, delivery must extend beyond the face-to- face institutional modality to include distance education, enrichment mass media, and non-formal settings.

Society for Information Technology and Teacher Education (SITE) (2002) states that there is increasing pressure for teacher education programs to graduate teachers who are confident and competent in using ICTs for their personal and professional lives to help themselves and to children. To adequately prepare teachers for work in the classrooms of tomorrow, teacher preparation programs need to develop programs that instill ICTs into the entire program using authentic and pedagogically appropriate approaches to achieve the objectives. That is, 'students should learn about, learn with, and learn to incorporate technology into their own teaching'.

Aduwa-Ogiegbaen & Iyamu (2005) states that there is universal recognition of the need to use Information and Communication Technology (ICT) in education as we enter the era of globalization where the free flow of information via satellite and the internet hold sway in global information dissemination of knowledge for everyone. According to Rosen and Well (1995) and Thierer (2000), the role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy to incorporate it with the education system. Cabanatan (2001) argues that the effectiveness of ICT integration is impacted by the teachers' motivation to integrate, personal knowledge and experience with ICTs, confidence in ICT use, access to ICT resources and training, teacher preparedness and technical and pedagogical support.

Omona and Odongo (2006) describe that advances in electronic-based information and communication technologies (ICTs) are rapidly transforming social and economic conditions across the globe. As the cost of ICTs continues to fall and their capabilities increase, their applications are becoming even more vital to all sectors of the economy and society. ICT has the potential to improve the quality of life by providing new tools for improving access to information and knowledge management as well as sharing. Wozney, Venkatesh and Abrami (2006) identify technology related training as a key factor for progress, suggesting that it "plays a crucial role in developing teachers' competency with computer applications as well as influencing teachers' attitudes towards computers." There is no doubt that ICT provides productive teaching and learning in order to increase people's creative and intellectual resources especially in today's information society. Through the simultaneous use of audio, text, multicolor images, graphics, motion, ICT gives ample and exceptional opportunities to the students to develop capacities for high quality learning and to increase their ability to innovate.

Westera and Sloep (2001) describe that the most challenging aspect of the post-industrial era is how to meet the demand of the information society that is enhancing day by day that modern man is trying to build. The role of education in developing modern society cannot be overemphasized. In fact, society and education are highly interdependent. As society changes, the educational system has to change accordingly.

Integration of information and communication technology (ICT) has become a priority in national educational policies worldwide. Meaningful integration requires a number of pre-conditions such as economic opportunity, political will, availability of suitable equipment, support infrastructures, professional development and others. Warlick (2005) states that technology today offer many new opportunities for innovations in teaching learning process through new learning tasks and potentially powerful scoring, reporting and the real-time feedback mechanisms. Information and communication technologies have brought new possibilities into the education sector, but, at the same time, they have placed more demands on teachers. They now have to learn how to cope with computers in their classrooms, how to compete with students in accessing the enormous body of information—particularly via the Internet, and how to use the hardware and software to enhance the teaching/learning process. The demands and concerns facing the education enterprise were not created by ICTs and will not be resolved by ICTs either. It is going to be very difficult—if not impossible—for countries to meet the objective of effective learning, for all, anywhere, anytime.

Our inability to meet this challenge, however, is self-inflicted because we tend to think of linear scaling, that is, using the same model of education (a school constrained by space and time) but more of it and on a larger scale. What we really need is to think differently and radically.  The education model developed for the Industrial Age cannot achieve educational empowerment effectively in the Information Age. New teaching methods are needed to develop a new literacy for the 21st century. According to Warlick (2005a), students need to learn to expose information, employ information, and express their ideas compellingly. Exposing information requires them to find, decode, and evaluate relevant information. Employing information requires them to process, manipulate, analyze, and add value to newly constructed knowledge. Finally students need to learn how to express their ideas compellingly using text, graphics, sound, video, virtual reality, and various types of media that they find relevant to them and their society

**OBJECTIVES OF THE STUDY**

The objectives of the study were as following:

1. To measure the proficiency of graduates of AIOU in using word processing, spreadsheets and presentation software
2. To analyze the proficiency of graduates of AIOU in internet and E-mail
3. To assess the proficiency of graduates of AIOU in using E-learning and blogs
4. To explore the use of ICT in work environment by AIOU graduates
5. To find out the obstacles faced by teachers in ICT use

**METHODOLOGY OF THE STUDY**

The study was descriptive in nature. All the graduates of faculty of Education of Allama Iqbal Open University (AIOU) were taken as the population of the study. Sample was comprised of 132 graduates of Allama Iqbal Open University who were teaching in various schools, colleges and universities in districts Rawalpindi and Islamabad. A questionnaire was designed by using likert scale to collect data.

**SAMPLE OF THE STUDY**

Convenient sampling technique was used to select sample. A sample comprised of 132 graduates of faculty of Education working as teachers in both public and private educational institutes of district Rawalpindi and Islamabad was selected for the study.

**RESEARCH INSTRUMENT**

A Questionnaire was designed with the help of literature review to collect data from the graduates of faculty of Education. Ten indicators were used in this questionnaire. Five statements were selected against each indicator to analyze the indicators and to assess proficiency of graduates in ICT in their work environment.

**DATA ANALYSIS**

Data was analyzed by using percentage, and mean scores.

**CONCLUSION OF THE STUDY**

**A summary of the conclusions of the study is presented below:**

1. 27% respondents had excellent proficiency while 25% respondents had good proficiency and 20% respondents had fair proficiency, 17% had low proficiency and 11% had no proficiency of using computer management. Mean score is 3.39 that shows most of the graduates had good proficiency of using computer management.

2. 14% respondents had excellent capability while 17% respondents had good proficiency and 16% respondents had fair proficiency, 20% had low proficiency and 33% had no proficiency of using computer hardware. Mean score is 2.59 that shows most of the graduates had low proficiency of using computer hardware.

3. 24% respondents had excellent proficiency while 24% respondents had good proficiency and 13% respondents had fair proficiency, 19% had low proficiency and 20% had no proficiency of using word processing. Mean score is 3.14 that shows most of the graduates had good proficiency in using word processing.

4. 17% respondents had excellent proficiency while 18% respondents had good proficiency and 19% respondents had fair proficiency, 26% had low proficiency and 20% had no proficiency of using spreadsheets. Mean score is 2.85 that shows most of the graduates had low proficiency in using spreadsheets.

5. 16% respondents had excellent proficiency while 24% respondents had good proficiency and 15% respondents had fair proficiency, 24% had low proficiency and 22% had no proficiency of using presentation software. Mean score is 2.87 that shows most of the graduates had low proficiency in using presentation software.

6. 16% respondents had excellent proficiency while 22% respondents had good proficiency and 14% respondents had fair proficiency, 22% had low proficiency and 26% had no proficiency of using internet. Mean score is 4.28 that shows most of the graduates had low proficiency of using internet.

7. 16% respondents had excellent proficiency while 20% respondents had good proficiency and 17% respondents had fair proficiency, 19% had low proficiency and 28% had no proficiency of using E-mail. Mean score is 2.76 that shows most of the graduates had low proficiency in running a computer program.

8. 9% respondents had excellent proficiency while 10% respondents had good proficiency and 9% respondents had fair proficiency, 20% had low proficiency and 31% had no proficiency of using E-learning. Mean score is 1.86 that shows most of the graduates had no proficiency in using E-learning.

9. 5% respondents had excellent proficiency while 6% respondents had good proficiency and 7% respondents had fair proficiency, 16% had low proficiency and 66% had no proficiency of using blogs. Mean score is 1.68 that shows most of the graduates had no proficiency in using blogs.

10. 55% respondents disagreed while 4% respondents were undecided and 41% respondents disagreed with the statement. Mean score is 3.21 that shows most of the graduates faced obstacles in the use of ICTs.

## RECOMMENDATIONS

On the basis of the findings and conclusions, the following recommendations were made:

➢ Students may be taught to use spreadsheets, presentation software, search engine, favorites/bookmarks for marking important websites.
➢ Students should be taught to create their E-mail accounts/IDs, to attach and download files.
➢ Students should be offered different courses stored in CDs/VCDs/DVDs.
➢ Students should be guided to use online resources like E-books, encyclopedias, dictionaries etc.
➢ Students should be motivated to listen online radio educational programs.
➢ Students should be asked to take part in online synchronous and asynchronous learning activities.
➢ Students should be taught to create their own blogs (personal web diaries).
➢ Students should be encouraged to use blogs, wikis and pod casts for their learning.
➢ Access to software and websites should be provided in all universities.
➢ Educational managers should encourage use of ICT in their organization and should facilitate their teachers in using computers, internet, networks, and online resources.

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