Gender Wise Comparision of the Perceptions of Students and Teachers Regarding Utilization of ICT Resources at Higher Level In Khyber Pakhtunkhwa

Dr. Rahmat ullah Shah, Zakia Tanzeela Fatima & Uzma Syeda Gilani

Institute of Education & Research, University of Science & Technology Bannu, Pakistan
Email: zakiafaitma@yahoo.com

ABSTRACT

The purpose of the study was to explore Utilization of Information and Communication Technology resources at higher education level in Khyber Pakhtunkhwa. The population of the study comprised of all teachers and students of public sector universities in Khyber Pakhtunkhwa. The researcher selected three public sector universities using Basket Technique of simple random sampling method. The researcher selected a sample of 450 respondents (150 teachers and 300 students) from the sampled universities. Questionnaire was used for data analysis. Percentage and T-test was used for data analysis. The study reveals that the institutions of higher education in Khyber Pakhtunkhwa are lacking with Information and Communication resources. The researcher concluded that both natural and social sciences departments were not well equipped with the Information & communication Technology resources. Therefore, it is recommended that Information & communication Technology resources may be provided to higher education institutions to bring the students capable and compete the modern world of science and technology.

Key Words: Information & communication Technology, Computer, Connectivity, Internet, Intranet

INTRODUCTION

Information and communication technology (ICT) has achieved great significance in the modern era because of globalization and without doubt Information & communication Technology is the only driving force behind globalization. It has changed the very form of life and improved competition on world level. Scientific and Technological awareness is spreading at an enormous speed that is why 21st century is often called as the age of information and communication technology. World's knowledge is rapidly reshaping itself with the changing of time. E-learning formally or non-formally works wonderfully higher education —the Internet "whether wholly or in part, plays its role for course delivery, interaction and/or facilitation". Similar is the case of "Web-based learning, which is a subset of e-learning called as internet learning. (Such as Netscape or Internet Explorer)".

Information and communication technology (ICTs) have been playing a very significant role in producing highly professional teaching staff at large. The usage of IT is crucial both for the students and the teachers.

Apart from teacher's development, ICTs also enhances the professionalism of administrators as well. National Education Policy 1998-2010 (1998, p.88) has emphasized the integration of ICTs in education in these words, "Universities requires to focus on information technology and should use its massive latitude for incipient teaching learning resources for the improvement of quality of education as well as linking themselves with scientists and researchers in other spheres of other world. Information technology infrastructure and its network will make our educational setup standardize and will bring our higher education on the world map".

Teachers communicate learning to students through mutual interaction. They use different ways for teaching learning process. They adjust themselves with the learning environment.

Individualized learning as well as collaborative learning is supported by them as numerous learners and teachers can interact in a shared environment. Pedagogical teachers competent of a wide range of instructionally effective interactions with students".

Technology can improve the quality of education. It has the capability of promotion and encouragement to the transformation of education from a teacher to a student. For example;

• To proliferate the capability, competency and outcomes focused on curricula
• To move towards problem-based learning
• To Increased use of the Web as an information source.

The ICT play its role in educational system as a catalyst for change. It encourages and support individual learning. "The students who use ICTs for their learning become engrossed in the progression of teach thus the number students who use computers as information sources and cognitive tools increases thus the effect of the technology on students learning enhances". (Reeves & Jonassen, 1996),

Theories of learning and ICTs making a very close relation. In the past, the traditional methods were believed suitable to achieve learning consequences. Such methodologies were teachers centered approaches. Only content based instruction was taken into consideration. Modern methodologies of teaching and learning are based on active participation of both the students and teachers.

According to Duffy & Cunningham, (1996) "the conventional process of teaching has circled around teachers planning and leading students through a series of instructional sequences to achieve desired learning results. Naturally these forms of teaching have revolved around the planned transmission of knowledge followed by some forms of interaction with the content. Modern learning theory is based on the opinion that learning is an active procedure of constructing knowledge rather than acquiring knowledge. Instruction is the process by which this knowledge construction is supported rather than a process of knowledge transmission.

The desire to attain higher education has made persistent the whole society. In addition, the progress in ICTs has made quality education reachable.

According to Berge and Barron (1998) "Many higher education institutions (HEIs) are using ICT to develop course materials, deliver and share the course content, lectures and presentations; facilitate communication among lecturers and students; conduct research; and provide administrative and management services. However, information on how ICT has been, and can be, used to enhance the design, delivery and management of higher education programmers in the Asia-Pacific region is not readily available".

Mostly education is considered as a tool to poverty eluviation; It is the only way to uplift societies economically. As suggested by many researchers, "the role of higher education

institutes (HEIs) within the context of knowledge-based economies and globalization is to give individuals the ability to transform information into socially beneficial knowledge, skills, and values; modernize societies and improve the standard of living; and prepare and produce a skilled workforce (Masood, 2010; Kong, & Li, 2009; Shaikh, 2009; Ng et al., 2006)". Amjad (2006) defines a knowledge-based economy as "one that bases its growth not on increasing capital or land or labor inputs, but on knowledge."   The emergence of ICT has led to the emergence of knowledge societies. Now, these societies enhance the development of knowledge economies (Binghimlas, 2009; Dighe et al., 2009; Allen, 2009; Bhattacharya & Sharma, 2007). These ICT-driven knowledge societies necessitate a skillful workforce in the use of ICT, as well as government support, transparent and autonomous institutions, developmental attitudes, and a sound ICT infrastructure.

In the light of the above discussion, the researcher come to know that Information and Communication Technology is an essential part of education and Mass Media studies and it has a vivid use and impact all over the world. For a developing country like Pakistan, ICT's importance cannot be overlooked to cater to the need of the present age of communication and information technology.

OBJECTIVES OF THE STUDY

The following were the objectives of the study:

1. To compare male and female students' views about utilization of hard ware facilities
2. To compare male and female teachers' perceptions about utilization of hard ware facilities.
3. To compare male and female students' views about utilization of soft wares in the institutions of higher education.
4. To compare male and female teachers' opinions about utilization of soft ware in the institutions of higher education.

RESEARCH QUESTIONS

The following research questions were asked:

1. Is there any significant difference between the perception of male and female students about utilization of hard ware facilities in institutions of higher education?
2. Is there any significant difference between the perception of male and female teachers about utilization of hard ware facilities?
3. Is there any significant difference between the perception of male and female students about utilization of soft ware facilities in institutions of higher education?
4. Is there any significant difference between the perception of male and female teachers about utilization of soft ware facilities in institutions of higher education?

Delimitation of the Study

1. The study was delimited to three public sector universities in Khyber Pakhtunkhwa.
2. The study was delimited to four teaching departments, two social sciences and two natural sciences of each selected university.

DATA COLLECTION INSTRUMENT

To get data about utilization of ICT resources one self-developed questionnaire was used on five point likert type scale (Always, Frequently, Occasionally, Seldom and Never). For the purpose of validity of questionnaire the researcher administered the questionnaire to 15 experts in social sciences departments. For the purpose of reliability, the researcher administered the questionnaire to 40 (20 students and 20 teachers) respondents. The Cronbach Alpha formula was used for assessing reliability of the questionnaire. The obtained Cronbach Alpha was 0.93.

After pilot testing, the refined questionnaire was distributed among 300 students and 150 teachers of the above mentioned three selected universities of Khyber Pakhtunkhwa, Pakistan. The response rate was 100 percent.

ANALYSIS & INTERPRETATION OF DATA

Table 1: Comparison of perception of male and female students regarding utilization of hard wares

S.N	Respondents	N	Mean	Std	T	df	p-value
1	Male	164	22.32	7.27	2.719	298	.007
2	Female	136	20.09	6.81			

$p \leq 0.05$

Note: The result is significant if probability of occurrence (p-value) is equal to or less than 0.05 levels.

Table 1 shows the testing of significant difference between the opinions of male and female students about the utilization of hard wares. Since $p = 0.007 < \alpha = 0.05$, means that null hypothesis of no significant difference between the opinions of male and female students about the statement is rejected. This is concluded that male and female students' have significant differences in their views regarding utilization of hardware facility.

Table 2: Comparison of male and female Teachers utilization of Software

S.N	Respondents	N	Mean	Std	T	df	t-value
1	Male	127	17.03	5.475	.642	148	.522
2	Female	23	16.26	4.158			

Note: The result is significant if probability of occurrence (p-value) is equal to or less than 0.05 levels.

Table 2 shows the testing of significant difference between the opinions of male and female teachers about the utilization of software since $p = 0.522 > \alpha = 0.05$, means that null hypothesis of no significant difference between the opinions of male and female teachers about the statement is accepted. This is concluded that male and female teachers have no significant differences regarding utilization of software facility.

Table 3: Comparison of male and female students' perceptions about utilization of soft wares

S.N	Respondents	N	Mean	Std	T	df	t-value
1	Male	164	14.93	4.221	3.15	267	.002
2	Female	136	13.24	4.931			

Note: The result is significant if probability of occurrence (p-value) is equal to or less than 0.05 levels.

Table 3 shows the testing of significant difference between the opinions of male and female students about the utilization of software since $p = 0.002 < \alpha = 0.05$, means that null hypothesis of no significant difference between the opinions of male and female students about the statement is rejected. This is concluded that male and female students have significant differences regarding utilization of software facility.

Table 4: Comparison of male and female Teachers' opinions regarding utilization of hard ware

S.N	Respondents	N	Mean	Std	T	df	p-value
1	Male	127	29.0	6.714	-1.03	148	.301
2	Female	23	30.6	7.796			

<u>Note:</u> The result is significant if probability of occurrence (p-value) is equal to or less than 0.05 levels.

Table 4 shows the testing of significant difference between the opinions of male and female teachers about the utilization of Hardware Since $p = 0.301 > \alpha = 0.05$, means that null hypothesis of no significant difference between the opinions of male and female teachers about the statement is accepted. This is concluded that male and female teachers have no significant differences regarding utilization of hardware facility.

CONCLUSIONS
1. No significance differences were found between male and female students regarding the utilization of hardware.
2. No significance difference was found between the perceptions male and female teachers regarding the utilization of hardware in public sector universities.
3. No significance difference was found between the views of male and female students regarding the utilization of software.
4. No significance differences were found between the views of male and female students regarding the utilization of software in public sector universities.

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