Webology (ISSN: 1735-188X)
Volume 19, Number 2, 2022

Accessibility And User-Ability Of Ict Tools At Secondary Level Schools Of Lasbela District, Balochistan

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ABSTRACT

In this technological era, the use of information communication technology influencing the teaching and learning habits of teachers as well as students to a great extent. Pakistan is in the preliminary stages in the use and integrating ICT in teaching learning process in educational institutions like the other developing countries in the world. The objectives of the study mainly deals with the use of ICT, its accessibility and user-ability to make teaching learning process effective and the factors influencing use of ICT in teaching learning process in secondary schools. The study was quantitative in nature. Data were collected from 100 secondary school students through questionnaire. Data were analyzed through various techniques using SPSS. The findings of the study indicate that secondary school students have a keen desire for the use of ICT and its integration within classroom environment. The study concluded that the stakeholder in education should facilitate the secondary school students and teachers in the use of ICT and must have to support the secondary school students and teachers through the conduction of trainings for teachers and integration of ICT tools in classroom environment for students. The study may recommend that ministry of education and

provincial government of Baluchistan has a vision to provide funds for department of education for the development and promotion of ICT at secondary level to cop up the students with the modern technologies to make them competent**.**

Keywords: ICT, Accessibility, affordability, user-ability, classroom environment, teaching learning process, secondary schools

1. Introduction

The use of ICT in education has the potential to enhance the quality of teaching and learning, the research productivity of teachers and students, and the management and effectiveness of institutions (Kashorda et al. 2007). Teaching is one of the most important and challenge field of profession in any educational society. In current era knowledge is being spread so quickly and the societies are demanding to use information communication technology (ICT) to enhance their learning capabilities. In short period of time ICT became a basic need of contemporary world. Different countries are aligning their educational system and making ICT as the fundamental and core concept for their education (UNESCO, 2002b).

ICT in education means the integration of computers in educational settings for the purpose to carry out an effective teaching and learning process in educational institutions. For the use of information and communication technology, one can require guidance from experts or colleagues. In academia well academic purposes for students to use ICT in order to learn better. In this process, exploring her acquaintance and familiarity with different peers for academic purposes. However, the Internet is the source, which is used mostly for the purposes of communication. Use of information technology and digital communications technologies that are yet to help each person, industry and the Institute. In the field of information technology many changes occur very fast so it is difficult to determine ICT. ICT is linked mostly to store, ownership, management and communication of numerical data. ICT is defined as information and communications technology to provide communication facilities that help in teaching and learning. However, ICT a variety of activities provide educational institutions (Zalzadeh, 2006).

Pakistan follow the decentralized system of education with respect in educational institution and these are being supervised by local district education department and they all are aligned with federal ministry of education and the central government is responsible to formulate a prescribed framework for public policy, development of curriculum, constitution of accreditation councils and provision of financial grants to carry out the selected research activities in education sectors. Reforms in education was top priority for government to review the national education policy of 1998-2010 and the process was started on new National Education Policy from 2005 by establishing the revision committee to review and executes the audit practice. The process of new national educational policy of 2009 was finalized and was put in limitation in running educational system. Highlighting the different week points of the system and reasons of limited resources. Absence of combined national education system, poor quality and the lack of equal opportunities for the individuals of society. This

policy was focused to highlight the insights about the importance and proper use of ICT in schools to improve the standards of teaching learning process. Pakistan government is much focused in formulating the educational strategies at national level for specific use ICT tools in educational systems and Pakistan is being considered as one of the most committed country in South Asia who is working on the development of its education. ICT has a vital role and great concern in education sector of Pakistan. The government of Pakistan and other stakeholders in the section focusing on the urgent need for information and communication technology in educational institutions. ICT needs close association in all spheres of social life of any government bodies and public and educational institutions, non-profit organization, secular and religious communities to spread. In the current development, information and communications technology properly it can play a key role as tools for general assessment of the educational processes of learning, academic and intimate relationship, in facilitating the development of student skills in cooperation and work productively with the knowledge (Harely, 2000).

Like other developing countries of the South Asia, Pakistan is also working and significant development in ICT and being as most important aspect for the society and national economic development, creating new opportunities for wealth generation and job securities. Pakistan has seen like other developing countries in the region, significant growth in the ICT sector. In November 2002 the government of Pakistan was established an independent Ministry of Information Communication Technology for the purpose to formulate policies in order to utilization of ICT resources in educational sectors. Main reason for establishing this ministry was to bring a bit change in environment of classrooms in public schools of Pakistan and provide a sense of maturity and to use the available ICT resources.

1.1 RESEARCH QUESTION

1. Does secondary school of Lasbela have proper ICT facilities?
2. How the students and teachers take advantage of ICT tools in their academic work?
3. Which type of hurdlers occurs during the implementation of ICT in secondary schools?

Research Methodology

This research was carried out by using a survey. The students of secondary level at district Lasbela formed the population for this research. A total of 100 secondary school students, selected through a stratified random sampling technique were recruited as respondents for this research. Data were collected through self-developed, close ended and self-response questionnaire. Before collection of data, validity and reliability of the instrument was checked through a pilot study by using Cronbach's alpha. The overall value of Cronbach's alpha coefficient was 0.78 which is acceptable for data collection. Data were then organized and analyzed through SPSS (V-22) by using various techniques and tests.

Literature Review

Teaching is one of the most important and challenge field of profession in any educational society. In current era knowledge is being spread so quickly and the societies are demanding to use information communication technology (ICT) to enhance their learning capabilities. In short period of time ICT became a basic need of contemporary world. Different countries are aligning their educational system and making ICT as the fundamental and core concept for their education (UNESCO, 2002b).

Use of ICT tools in the educational system is not a new trend. In the 1970‟s, its promoters claimed that it would transform and save education (Lockard& Abrams, 1994). The late 1980‟ saw a growing shift towards computer integration which emphasized the curriculum and not the tool. While using the ICT tools in classroom students will adopt new knowledge and skills in order make their needs fulfill and to get their work done easily. It is being considered that ICT tools have been seen that the individuals can more effectively compete with other when they have facilities and access to the computers extra in a common way. (Lockard and Abrams, 1994). Center of attention 1990 “saying that the trend using digital accessories e.g. computer and smartphones has been increased in educational settings. The growing interest in utilizing the digital resources to enhance the knowledge, skills and the interest of students and it can be comes from many different way involving the guardians and social circle of students. It is not only the responsibility of education sector to work out on it. In educational setting the major function of ICT is to provide the easy access to the new knowledge through the use of internet and the facilities of computer labs in schools

The lesson here is that computers are only a subset of the ICT facilities required in schools, and that even then, they must be furnished with quality accessories, with the appropriate software to install and connect the necessary networks to allow access to behind the school rather rich resources to serve as a resource for typesetting and minor processing activities and other texts. While previous studies have generally tried to explain how the availability of ICT has impact on students learning and it does not look at how clearly ICT is supportive for academic performance.

2.1 ACCESSIBILITY OF ICT RESOURCES

Alignment of ICT tools in teaching learning process at secondary schools will provide opportunities for students and teachers use rich digital technology to access the academic=information and it will create a sense of connectivity between students and teachers inside or outside the schools. A school needs to have sufficient computer and labs where the students could easily access to the information and could be in touch with their running subjects of their course. In modern era a schools must have video conferencing room, use of ICT in curriculum development process of that school (Schools Network Africa, 2004) ICT facilities at each school should be available for small and large group of students. Most of the institutions in Pakistan specifically in Baluchistan face challenges to integrate the ICT tools in effective teaching and learning process at secondary schools.

Many developers of commercial and academic focused multimedia education in the first place to obtain and display information (Singh, 1993). Moreover, it is easy to say that ICT tools have much potential to support the individuals to enhance their knowledge and to access the stuff for their learning that is reliable and valid. It is much easy to pursue the knowledge with availability of digital resources and easy to have good and soft image (Schank and Kass, 1996).

Easy access and utilization of ICT resources permits the students to seek more information about the academics on real grounds (Reginald Grégoireinc, Bracewell and Laferriére, 1996 ;. Riel, 1998).Students with the help of ICT and online sources of information can easily approach to the information outside the school and classrooms. Students can utilize these resources for the purpose of interpretation and analyzing the available information students can approach to these information through the online portal and visiting different webs (Reel 1998 recording systems). According to the educational Committee on developments in learning science, 2000 that the management can get feedback from the individuals and can review according to the gained knowledge and understandings of students. It was very difficult in past to provide ICT tolls in schools due to the logistic and domestic educational environment. A huge amount of ICT material was needed to facilitate and equip all the schools to continue the classroom activities with ICT to expand the students' knowledge (Réginald Grégoireinc. Et al., 1996).

Dewey (1989) states that the large amount of information, knowledge skills can be accessed but not able to put in practices during the class activities. It seems very tough task to retain the information and use them in classrooms when it's needed. Use of ICT in education is not new trend and was already in use for some target groups of learners (Salomon, 1994). Previous studies showed that the ICT resources in educational setting and the fundamental information in respect to different access point like as digital libraries, online resource centers informative stuff. And possible accessibility of ICT tools can boost learning of students..

2.2 USER-ABILITY

The profession of teaching in our society has much important and most challenging where the teachers need to expand their knowledge so rapidly and they need to transfer and acquire new knowledge and skills according to needs of their educational settings. Students in recent time have to affiliate their learning process with the ICE and to adapt new technologies to comprehend their academics contents (Young, 2005).

In view of the above, there is rapid change in worldwide in ICT. Researchers who have conducted most recent research by the British Education Communication and Technology Agency (BECTA 2009) that user ability of ICT is one of the fundamental aspect for learners to get command and aligned they day to day academic activities and to complete their educational tasks successfully in secondary schools (the National Council for Curriculum and Assessment UK, 2004). Well developed countries use the facility of ICT in all essential aspects of education to improve the performance of students and to develop the professional skills of teachers in completion of complicated and professional task of students and teachers in their teaching learning process (Davis,

2000). Proper use of ICT in assigned specific tasks of students provides them first- hand experience in resolving their academic issues and it provides extra support to carry out the personal research projects as well as to work in collaboration with other students to exchange of knowledge on ground realities and to create new methods of learning (UNESCO, 2002A).

According to Newhouse and Without Love (2002) if the ICT is being used positive and in proper ways it will help to enhance the knowledge of knowledge and will open new doors for students to make an effective process of learning to achieve their desire educational goals. However, confident is main factor for students and teachers on the knowledge related to their subjects. Further, other digital tools also can be integrated in classroom activities. A large number of research results have shown that most of the time students use ICT as a motivational tool to support themselves in complicated and specific learning process.

According to (Mbwesa, 2002), it has resulted in the use of information and communication technology in the present era the responsibility of the student towards the teacher also, such as the student of the house can take a lecture on the Internet and can be coming from a virtual network to see the task of the Department of Education. The use of ICT in education is essential noteworthiness them for, change innovation way in which teachers and students supervision prepares by enabling them to study more opportunities to promote education, and should teachers know explanations for the use of innovation can be re-design and can be made much specialists and can be educated to the secondary school students (Moussawi 2011).

According to Rosenberg (2006) that students must have the basic capabilities to adapt new learning techniques. Classroom is a place where teachers shares their experience among the students and can guide them about the importance of ICT adaption in education

In current technological use of computer, printers, cell phones in education are essential tools for learning process. The use of modern technology such as computers, peripherals, networking and a host of technology an essential part of learning in the last few decades for students and teachers. With stimulation of ICT tools teachers can receive maximum results from the students and it is an effective way to enhance the knowledge of students and to create chances for accomplishment of the tasks in given period of time.

DATA ANALYSIS AND DATA INTERPRETATION

The main purpose of the study was to conclude the accessibility and user ability of ICT tools at secondary schools of Lasbela. The responses of respondents are being collected into frequencies and then changed into percentages and shown as equal in tables. The data is analyzed based on each question asked by the study in the questionnaire.

Table 4.1. Demographic Information of the Respondent

	Grade	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9^{th}	26	26.0	26.0	26.0

	10th	74	74.0	74.0	100.0
	Total	100	100.0	100.0	
	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13.00	12	12.0	12.0	12.0
	14.00	13	13.0	13.0	25.0
	15.00	24	24.0	24.0	49.0
	16.00	25	25.0	25.0	74.0
	17.00	15	15.0	15.0	89.0
	18.00	10	10.0	10.0	99.0
	19.00	1	1.0	1.0	100.0
	Total	100	100.0	100.0	
	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	55	55.0	55.0	55.0
	Female	45	45.0	45.0	100.0
	Total	100	100.0	100.0	

The results obtained from the responded that in the sample size there were 26% of respondents ware from the 9th grade and 74% of the respondents were 10th grade.

The age of respondent were 12% of candidates were 12 years old, 13% of respondents were 13 years old, 24% of the respondents were 15 years old, 25% of the respondents were 16 years old, 15% of the respondents were 17 years, 10% of the respondents were 18 years old and only 1% of respondent were 19 years old.

Further the frequency distribution result shows that the 55% of respondents were male and 45% of respondents were female.

Table 4.2. Accessibility of ICT in School

Do you have computer in School					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	90.0	90.0	90.0	90.0
	No	10.0	10.0	10.0	100.0
	Total	100	100.0	100.0	
Do you have easy access					

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	1.0	1.0	1.0
	No	99	99.0	99.0	100.0
	Total	100	100.0	100.0	
Do you have Expertise to use computer					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	6.0	6.0	6.0
	No	94	94.0	94.0	100.0
	Total	100	100.0	100.0	

The results obtained from the respondents were analyzed through SPSS and according to the results in the study the respondents argued about the accessibility of ICT tools in school in which 10% of the respondents argued that they have computers in their schools and 90% of the students argued that they don't have computers in their schools.

Further response received according to the statement 2 that 1% of respondent argued that they have easy access to the ICT tools and 99% of the respondents denied the statement. Hence 6% of the respondents argued that they have expertise to operate the ICT gadgets, however 94% of the respondents have denied the statements.

Table 4.3. There is no significant association between use of ICT tools and students' academic performance

		Value	df	Asymp. Sig. (2-sided)
Does ICT support you in your academic	Pearson Chi-Square	.917[b]	2	.632
	Likelihood Ratio	1.434	2	.488
	Pearson Chi-Square	2.981[c]	3	.395
	Likelihood Ratio	2.908	3	.406
	Pearson Chi-Square	1.853[a]	3	.603
	Likelihood Ratio	1.849	3	.604

The Pearson Chi-Square results are indicating that there is no association among the use of

ICT and students' performance because the probability value of Chi-Square test is 0.63 which is greater than the 10% of confidence interval. It means we do not reject the null hypotheses.

Ho: There is no significant association between ICT and browsing of academic material of students.

Chi-Square Tests				
Does ICT helps you to find out your course material		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	2.500[b]	3	.475
	Likelihood Ratio	3.555	3	.314
No	Pearson Chi-Square	2.060[c]	3	.560
	Likelihood Ratio	2.245	3	.523
Total	Pearson Chi-Square	7.095[a]	3	.069
	Likelihood Ratio	8.241	3	.041

The Pearson Chi-Square results are indicating that there is no association between ICT and browsing of academic material of students because the probability value of Chi-Square test is 0.63 which is greater than the 90% of confidence interval; it means we reject the null hypotheses.

Table 4.5. Integrating ICT is important in Education

Integrating ICT in Education is important				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
	7	70.0	70.0	70.0
	3	30.0	30.0	100.0
	10	100.0	100.0	

In the response of statement the 70% of research respondents have argued that the integration of ICT in education is important, however 30% of the individuals have rejected the statement.

Table 4.6. ICT helps you to teach the specific content

ICT helps you to teach specific content				
	Frequency	Percent	Valid Percent	Cumulative Percent
	9	90.0	90.0	90.0
	1	10.0	10.0	100.0
	10	100.0	100.0	

In the response of statement three the 90% of the teachers argued that ICT helps them to teach the specific content in educational setting, hence only 10% of the teachers have denied the statement. Thus majority believed that ICT can help them in their teaching while teaching the specific content.

Table 4.7. ICT helps for better knowledge

ICT helps for better knowledge				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
	9	90.0	90.0	90.0
	1	10.0	10.0	100.0
	10	100.0	100.0	

In the response of statement three the 90% of the teachers argued that ICT helps them for better knowledge, hence only 10% of the teachers have denied the statement. Thus majority believed that ICT can help and enhance their knowledge.

Table 4.8. ICT can counter the shortcoming in traditional learning

ICT can counter the shortcoming in traditional learning

	Frequenc	**Percent**	**Valid**	**Cumulative**

	y		Percent	Percent
	9	90.0	90.0	90.0
	1	10.0	10.0	100.0
	10	100.0	100.0	

In the response of statement three the 90% of the teachers argued that ICT can counter the shortcoming in traditional learning, however, only 10% of the teachers have denied the statement. Thus majority believed that ICT can counter the short coming in traditional learning.

Table 4.9. ICT enables you to overcome your teaching deficiencies

ICT enables you to overcome your teaching deficiencies

	Frequency	Percent	Valid Percent	Cumulative Percent
	9	90.0	90.0	90.0
	1	10.0	10.0	100.0
	10	100.0	100.0	

In the response of statement four 90% of the teachers agreed with the statement that ICT enables them to overcome on their teaching deficiencies however, only 10% of the teachers were not in favor of the statement.

Table 4.10. Online Browsing is effective for teaching material

Online Browsing is effective for teaching material				
	Frequency	Percent	Valid Percent	Cumulative Percent
	8	80.0	88.9	88.9
	1	10.0	11.1	100.0
	9	90.0	100.0	

In response of the statement almost 89% teachers agreed with the statement but only 11% teachers have denied the statement. Thus the majority believed that online browsing is effective for teaching

material.

Table 4.11. How Good Teachers are in Basic Computer

How good are you in computer basics

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	7	70.0	70.0	70.0
Good	2	20.0	20.0	90.0
Fair	1	10.0	10.0	100.0
Total	10	100.0	100.0	

In response of the statement the 70% of the students argued that they have excellent command on computer basics, 20% of the teachers were seems good in computer basics, however, only 10% of the teachers argued that they are fair in computer basics.

Table 4.12. Affordability of ICT Gadgets

Does your school have own resources to purchase ICT gadgets

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	50.0	50.0	50.0
Never	2	50.0	50.0	100
Total	2	100.0	100.0	

In response of the statement about own resources the 100% of the respondents argued that they don't have own resources to purchase ICT gadgets.

DISCUSSION

Jung (2005) describes where technological innovation opens up new doors of innovation also have created more demands for teacher and student to work in a collaborative environment. Drawing from the above there is a popular trend across the globe to exploit the ICT technology in an effective way. Finding shows user ability to use ICT technology is considered one of the strongest elements to the successful integration of ICT in schools. The developed nation teachers are implementing the ICT

in every phase of teaching to improve the learning experience of their students. Moreover, ICT inducement in teaching professional has built up the teacher knowledge through knowledge sharing with other colleagues. Students and teacher have created knowledge groups to discuss the education projects in detailed. Student ability to generate new knowledge through knowledge communities has opened up a new horizon in the education sector.

In addition to the previous views about the functionality of user ability to use ICT share their knowledge state that personal interest and expertise of teachers and student create a positive role in effective implementation of ICT in the education department. They added further and describe once the teacher and students become aware of their responsibilities make clearer to use ICT technology, also ICT technology inducement has changed the traditional teaching model where student use to completely dependent on teachers.

5.3 CONCLUSION

The conclusion was drawn on the basis of findings. It is concluded that accessibility of ICT resources, and user ability of the ICT resources play a vital role in students learning. The results indicate that there is no accessibility of proper ICT resources in the secondary schools of Lasbela. According to first research objective, accessibility of ICT resources doesn't effects on students learning. The access to the ICT resources in the schools of Lasbela for both the teachers and the students was not according to the standards. The major challenge for teachers and students still upsetting to easy access to ICT resources in the public schools of Lasbela still limited which cannot meet the needs of the ever-changing population of the students in the private schools of Baluchistan

On the basis of study findings the following are the recommendations which will be useful for the stockholders of educational sectors.

RECOMMENDATIONS

1. Measures should be taken to regulate the obtainability of ICT resources.
2. Radical steps should be taken towards the affordability of ICT resources in secondary schools of Baluchistan.
3. Measures should be taken to control the accessibility of ICT resources.
4. Measures should be taken to formalize the user-ability of ICT resources. In the private sector, the Government should spend on technological equipment, and the arrangement for trained personnel's to handle the accessibility of the computers in the computer labs of the public schools of Baluchistan.
5. The Government should provide the facilities for the projectors, printers and the computers in both public and private schools. It is the needs of the public and private schools of Baluchistan that there should be the facility of internet connections in classroom environment.

6. The schools should liberalize the facility of internet and e-mail services in the schools and build ICT resource centers in the schools for the students.
7. The training of the computer skills in schools should not be limited to Microsoft Office, the school administration of public and private sectors should integrate the other computer-based software's recommended by (UNESCO, 2000).
8. The Government of Baluchistan should increase the share financial budgets for ICT equipment's in Public and Private Sectors of Baluchistan.
9. The Government should initiate ICT training programs for teachers of Baluchistan.

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