Availability of Technological Resources and Techniques in Educational System
(A Study Conduct in Punjab, Pakistan)

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Abstract: Modern technology can make more innovative and creative ideas in students mind. It can build the students to learn their lesson their own self and provide a lot of information that is required by students. Revolutionize the routine of technology that increase educational paradigm shift which provide importance to the student centered learning. The study presents the sociological analysis of modern technology in the educational system for learning, retention and accumulation of valuable knowledge, skills that can enable to become concept development. The main objectives were to probe available technology resources in education system and to examine educating students on appropriate use of technology that can overcome the problems. Total sample size was 300, 100 respondents from each districts. A well structured interview schedule was designed in the light of objectives. Data collected through personal interviews from the selected respondents. Interview schedule was used for data collection. Data analyzed through SPSS (Statistical Package for Social Sciences) and result will be interpreted statistically. Researcher found that students have basic technological resources in their education system but they did not access latest technology even most of students don't know about these technologies. It was found that technology facilitate the students to become independent learner, it improve the students interest because many websites provide practical knowledge with theoretical knowledge.
Keywords: Technological Resources, Education, Knowledge, Concept Development, Learning Skills.

Introduction

Technology is basically refers to remains of knowledge which used for create skills and produce tools. Technology is the collection of tools, materials, and physical devices of technical performance. It is sources of power to make life more pleasant, easier and work more productive. Modern technology has skilled huge extension in modern years, lead to its wide use by people from the entire generation. In fact, technology is changing process and the extent that children (Simuforosa, 2013). It has understood that visual explanation of concept makes learning enjoyable and fun for students. They competent to take part more in the classroom. Teacher gets a chance to make their classes more interesting and interactive (Waddell, 2015). Modern technology can make more innovative and creative ideas in students mind. It can build the students to learn their lesson their own self and provide a lot of information that is required by students (Davis, 2012). We use technology in deliver lessons, research in the classroom and sharing knowledge in one platform. Technology provide attractive way for provide knowledge to the slow learners. Now there is no geographical limitation with the introduction of online degree program. The difference between the fall in students' performance on difficult task and rise in student test scores is explained by the new liability factor for administrators and teachers. Teachers and schools are limiting training to practice and drill which emphasize the material that the national norm assessment to assemble the set level on standardized assessment. In this time students improved assessment takers but it also became not as good as at the higher order cognitive wisdom. These methods of schooling to the assessment bring about improvement to move schooling instruction as of rote learners to critical thinking, solution of problem and concept development. This sort of philosophy is based on theory of learning and knowledge, named constructivism (Sandholtz et al, 1997). Contemporary technological development has altered that how students learn and socialize and that raises a new set of issues that educators and policy makers should consider. Technologies affect academic performance of students; it is an important part of students' lives and so it is essential to understand the impact on academic achievement. Many researches has been conducted all through the world to evaluate the positive impact of technologies provide in the classroom (West, 2015).

Technology affects that how to socialize, connect and most importantly learn. With their increasing and vast existence in our life, it only makes sense to have mobile technology in educational environment (Ceulemans and Pauline, 2012). If we use technology in a proper way: it will be helpful to prepare students for their future careers which are a great way to reach diversity in learning styles. It gives students opportunity to interrelate with their class mates more by cheering teamwork (Granito, 2012). Now our students are living significantly different from that of yesterday. Internet has become available almost to every person and now virtual world is at the fingertips of youngsters. It is essential to recognize that former time's education is not sufficient for today's learner (Nicholon, 2009). We must provide those skills and knowledge that work with the context of today's innovational environment. We should equip our school, college and university students with latest skills and technologies.

Research Objectives

The overall objective of study is to conduct analysis to check the role of modern technology in educational development. However, the detailed objectives are as below**:**
1. To probe available technology resources in educational system.
2. To explore effective way to use of technologies by students for learning.
3. To examine the educating student on appropriate use of technology that can overcome the problems.
4. To draw conclusion and suggest measures.

Literature Review

Stisic (2015), explored that the role of technology is very important in teaching process due to the used of information and communication technologies. It is very helpful for the distance education, students and teachers themselves and they also seen the advantages of educational technology. Educational technology was growing day by day in the classroom system and students of new generation were ready to work on latest technology which play important role in learning and acquiring cognitive knowledge. Educational technology improved the student's hidden skills, cognitive characteristics and receiving new information but we must find the best strategy to apply technologies in teaching process.

Muntaha et al (2013), showed the effects of educational technology in the school system. Their study consists of the both perspective of educational system students as well as students in schools and the result showed that both teacher as well as students are interested in the educational technological system. They recommended that educational institutions must be arranged the workshops and seminar for the awareness of and importance of educational technology. There must be a training system for teachers for the better outcome of educational technology.

Simuforosa (2013), examine that youth spent many hours to using the electronics and majority have the access to internet. Now recently proof that technology effects in academic performance. His study found that latest technology impacts on learning in both aspects negatively and positively. Recommendations would make for the policy makers, media and especially to educationist and parents for conduct few ways to increase the technological system for the benefit of students and decrease the harms which technology can have for students. According to the finding of the study the students mostly use the computer and internet in their educational work to complete their assignment and these electronics help them to become an independent learner.

Davis (2012), explored that academicals system arranged on lack of theoretical and empirical knowledge to maintain the educational needs. Now the problem is that majority of students have to meet with digital nations to fulfill the need of student. This research study paying attention that the make use of instructional technology and another thing is how it would be affective in the achievement of students. The analysis of his research found that use of the technological instruction in educational system didn't increase the achievement of student academic performance.

McGrath (2012), examine that relationship of technology and students and he explored that new media technologies such as video games, computer games, internet and Emails played a vital role in the development of educational system. Different types of latest innovations playing major role in routine life of modern society. These new technologies serve new information to new generation of our society.

Kennedy (2010), observed in Lingnan University that technological source is helpful for teaching and learning resources. Educational institutions stand to advantages of many mobile based and online technologies, which improve and upgrade the extremely educational potential. So adoption of management systems and classroom polling devices could build up the value of teaching which trim down the language barrier limits and also encourage more active learning. Furthermore, educational institutions must do good to diversify their classrooms environment and their programs of study by utilize online social networking sites, video conference

based and virtual reality software courses. Institutions stand to continue their pattern of innovative learning, whereas ensuring an excellence liberal arts education.

Barlow et al (2001), explained highly positive trend about the awareness of technological system and its value. It expressed about the university progress in training and supporting of the facility members and provided the information to them. Most important thing is that technology indicates unabated attention in studies but students also point out the weakness in pedagogical system instructional technology. In their studies majority of faculty member and students think in the value and better understandable of instructional technology.

Methodology

The present study was directed in the area of Punjab. A research population is also identified as a praise collection of individuals or things known to have like characteristics. All objects or individuals within a certain population, generally have a common binding traits or characteristics. According to need of Research population of study were the students of universities who are getting higher education such as Masters, M.Phill and PhD. There are total 59 universities in which 34 universities are government and 25 universities are Private universities in Punjab, Pakistan. There are 36 districts in Punjab, Pakistan. The study area of present research is three major districts of Punjab, Pakistan selected by *simple random sampling* that are Lahore, Faisalabad and Rawalpindi. At the second stage, there are 27 Universities in Lahore (12 Government and 15 Private), 4 Universities in Faisalabad (3 Government and 1 Private) and 2 Universities in Rawalpindi (2 Government and 0 Private) out of these universities selected two universities from each district through *simple random sampling* include University of Arid Agriculture, Rawalpindi and Fatima Jinnah Women University, Rawalpindi, University of Faisalabad, University of Agriculture, Faisalabad, University of Engineering and Technology, Lahore and University of Central Punjab, Lahore. Furthermore, from each university an average of 50 students were selected. Afterwards the researcher interviewed the respondent (both male and female) selected by *convenience sampling*. For this purpose a well structured interview schedule were used. Interview schedule was developing to keep in mind the objectives of the study. Interview schedule is the best tool for the collection with appropriate results. This was asked from participants by the researcher in a face to face interaction. After completion of data collection data was analyzed by some statistical tool by using SPSS (Statistical Package for Social Sciences) by various statistical techniques as univariate/ descriptive and bivariate techniques. In univariate, just a variable analyzed with its averages and percentages were explained. In the later stage certain bivariate analysis were applied to infer the results as well as to watch relationship between the predictor and response variable.
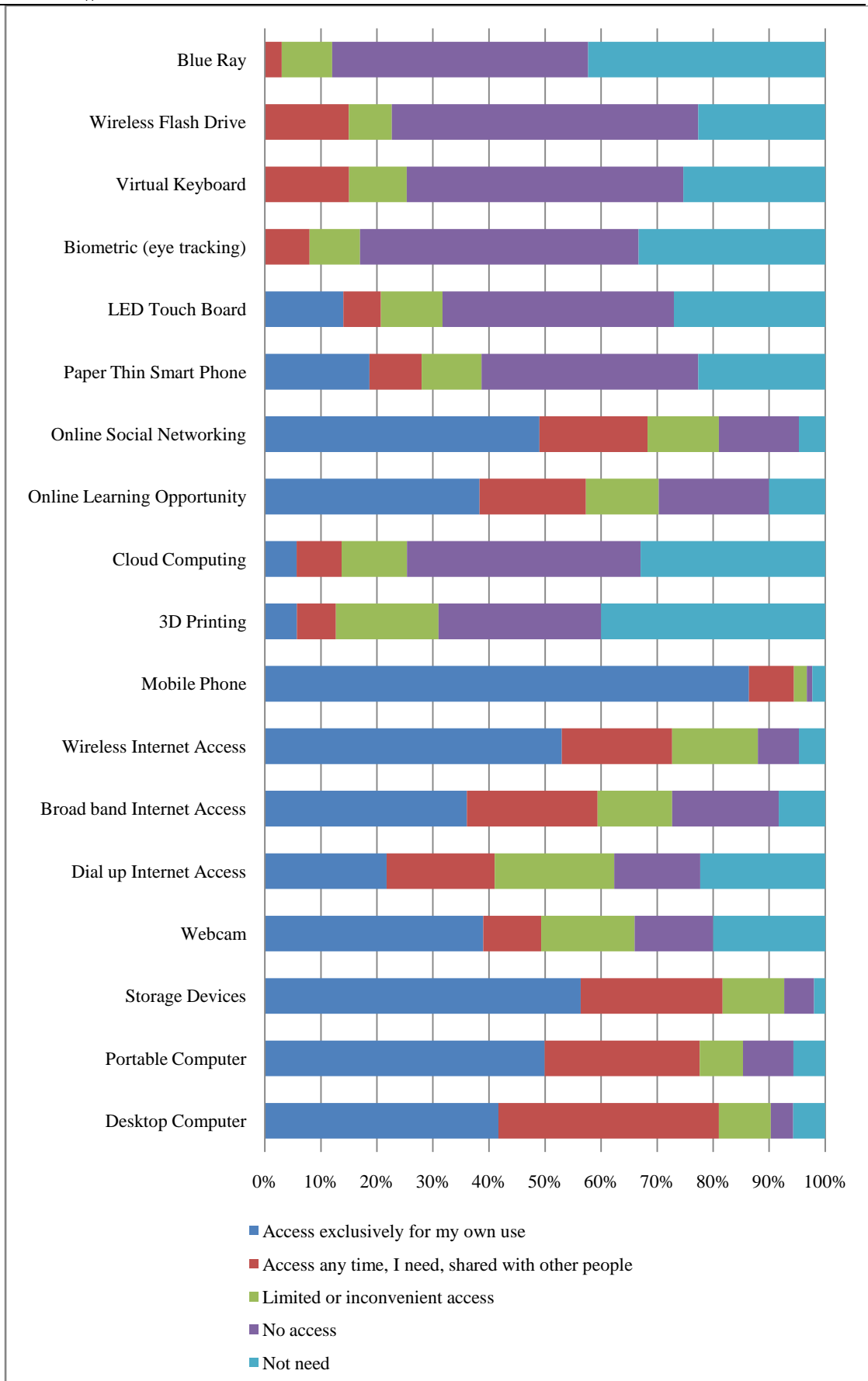
Results and Discussion
Percentage distribution of respondents with respect of their access of technology

Types of technology	Access exclusively for my own use		Access any time, I need, shared with other people		Limited or inconvenient access		No access		No need	
	F	%	F	%	F	%	F	%	F	%
Desktop Computer	125	41.7	118	39.3	28	9.3	12	4.0	17	5.7
Portable Computer	150	50.0	83	27.7	23	7.7	27	9.0	17	5.7
Storage Devices	169	56.3	76	25.3	33	11.0	16	5.3	6	2.0
Webcam	117	39.0	31	10.3	50	16.7	42	14.0	60	20.0
Dial up Internet Access	65	21.7	58	19.3	64	21.3	46	15.3	67	22.3
Broad band Internet Access	108	36.0	70	23.3	40	13.3	57	19.0	25	8.3
Wireless Internet Access	159	53.0	59	19.7	46	15.3	22	7.3	14	4.7
Mobile Phone	259	86.3	24	8.0	7	2.3	3	1.0	7	2.3

3D Printing	17	5.7	21	7.0	55	18.3	87	29.0	120	40.0
Cloud Computing	17	5.7	24	8.0	35	11.7	125	41.7	99	33.0
Online Learning Opportunity	115	38.3	57	19.0	39	13.0	59	19.7	30	10.0
Online Social Networking	147	49.0	58	19.3	38	12.7	43	14.3	14	4.7
Paper Thin Smart Phone	56	18.7	28	9.3	32	10.7	116	38.7	68	22.7
LED Touch Board	42	14.0	20	6.7	33	11.0	124	41.3	81	27.0
Biometric (eye tracking)	0	0.0	24	8.0	27	9.0	149	49.7	100	33.3
Virtual Keyboard	0	0.0	45	15.0	31	10.3	148	49.3	76	25.3
Wireless Flash Drive	0	0.0	45	15.0	23	7.7	164	54.7	68	22.7
Blu Ray	0	0.0	9	3.0	27	9.0	137	45.7	127	42.3

The largest proportion of desktop computer and the majority (41.7%) of students found that who access desktop computer exclusively for their use. Half (50.0%) of respondents had their own portable computer for their personal use. The majority above half (56.3%) of respondents had their storage devices in which they can store their important data in which USB, memory card, CD and DVD included. Moreover (53.0%) of respondents connected their internet through wireless internet access. A huge majority (86.3%) of respondents had access mobile phone exclusively for their own use. Also majority about (41.3%) of respondents had no access of LED touch board in their classroom for their educational system. Almost half (49.7%) of respondents had no access of biometric (eye tracking) in educational system. While (49.3%) of respondents had no access of virtual key board which is one of the latest technology in educational system. Responses of (54.7%) of respondents that they had no access of wireless flash drive we can easily share the data more than one person through wireless flash drive at the same time through their signals. Furthermore majority (45.7%) of respondents were responding that they have no access of blu ray which is new invention in the improvement of Digital Video Display.

Conclusions

Technology play a vital role in education development and after analysis of the data, the researcher found that students have basic technology in their education system but they did not access latest technology even most of students don't know about these technologies. It's found that teachers were not even trained for better use of educational technology and majority of educational institution not use latest technology in their teaching learning process.

Recommendations

Keeping in observation of conclusion, researcher builds few recommendations which described as under:
- All classrooms must be upgrade when new technology are improved or added to improve the standard of education.
- It is important to implementation of policies for the benefit of students.
- It is concluded that there should be conduct seminars and conferences for the technological awareness and its importance in our educational system
- There is need to spend a good portion of our GDP to improve our technological system in educational institutions.

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