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Role of Information and Communication Technologies in Knowledge Gap: A Comparative Study of Public and Private Schools in Lahore, Pakistan

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The study examined the role of information and communication technologies (ICTs) in knowledge gap by comparing public and private schools in Lahore. It focused on the availability, application along with the usage of ICTs in public and private schools to monitor the improvement of communication skills and the level of knowledge (latest information) of students by integrating ICTs. The study applied causal comparative method and questionnaire as a tool for data collection. The Universe of the study was Lahore and student of 9th and 10th classes were the population. Stratified sampling technique was used to identify schools and respondents of the study. The theoretical framework based on 'Knowledge Gap Hypothesis' and t-test was applied for hypotheses testing. The findings confirmed that private school students have more means of getting access to ICTs thus have more exposure to these devices and better communication skills as compared to public school students. Students of both the sectors showed interest in the implementation of ICTs in classroom teaching to obtain the latest information about various issues. The study also suggested some recommendations for the field and future researchers.

Keywords: *ICTs, knowledge gap, school students, causal-comparative, communication skills.*

Introduction

The most important factor widely recognized in the development of the nation is Knowledge. It simply alludes to the information, facts, principles, skills and understanding, i.e. acquired through learning and experience (Roy, 2013). Data serves as a source for information, which further serves for knowledge derivation. Knowledge is defined as a fluid blend of framed skill/ practice, expert insight, contextual values and information that provides a structure for incorporating and evaluating new information and experiences. Minds of knower originate and applied the knowledge (Davenport & Prusak, 1998). A developing nation is always dependent on developed countries for production and utilization of knowledge. James Wolfensohn is the president of World Bank stated, in his study "Voices of Poor", that poor people know the same as everyone else, but lack of knowledge and competitiveness keeps him poor (Evers, 2002, p.3). To increase the competitiveness and knowledge the most significant way is to use new modern technologies. So, the practice of modern technologies, i.e. information and communication technology (ICTs) for the evolution of one's knowledge is the only way to increase competitiveness.

Around the globe systems of education are applying the new ICTs as a tool to improve the skills and knowledge needed in the twenty-first century. "It seems that ICTs have taken a central position, occupying a diverse human nature. It is a new paradigm, opening different means of electronic communication and circulating information to the minds of people, in

various ways" (Oyewole, 2014). National Council on Education Technology stated that ICT is the way of receiving, accessing, storing, processing, transferring and sending perception, ideas or information through communication facilities and computers (Adesoji, 2012). ICT helps people getting ideas, making theories, implementing them, and creating new horizons "The growing ICT has provided an easy access to acquire knowledge. Especially different types of electronic gadgets, personal computers, tablets, laptops are giving an easy access to World Wide Web (www), getting information was never easy, but it is, now" (Evers, 2002). ICT has provided prospects to reach an extravagance of information after usage of numerous information sources to view information from several perspectives, hence nourishing the validity of learning environments. ICT can also formulate complicated things effortless to learn by using various human control electronic simulations, 3d projections, 3d printing. So, ICT can function as a catalyst for vigorous high-order thinking, learning and teaching (Alexander, 1999).

ICTs can be used for technological development of psychological, physiological, scientific, medical political, social purposes. The practice of ICTs in relations to technology, generate a technological revolution of the last few spans and liable for the gap between developed and emerging countries. Developing countries can attain higher levels of development by knowledge revolution and knowledge space may possibly broaden the disparities between poor and rich. Application of new knowledge technologies will generate discrimination in the acquaintance of better knowledge and information between upper and lower class (Persaud, 2001). It is undoubted that global influence of ICTs is transforming the general public.

Keeping in view the above-cited concern this study analyses the role of ICTs in Knowledge Gap by comparing the knowledge and communication skills of students of public (low socio-economic status) and private schools (high socio-economic status) in Lahore, Pakistan. It is a general observation that new technologies are going to widen the space between information of poor and rich. The rise of knowledge in society is not gained equally across all the individuals of society, people with superior socio-economic rank tend to have improved ability to obtain information hence two groups are formed one with low education having less knowledge and other with enhanced education having better knowledge (Weng, 2000).Instead of closing the gap, the introduction of these technologies widens the gap between the socio-economic groups of the country. Purpose of current study is to know the dissimilarity in use and exposure of ICTs in public and private school students furthermore, look at the learning crevice in most recent data and relational abilities of understandings between the individuals who have contact to (non-public schools), and control innovation and the individuals who don't have admittance (state-funded schools).

The specific objectives of the present study were to:

1. Explore the level of availability of ICTs and their application in public and private schools of Lahore;
2. Monitor the knowledge (latest information) of students by using ICTs.
3. Examine the communication skills of students due to ICTs usage.

Hypotheses

The hypotheses formulated for the study were as follows:

H1: ICTs are more significantly available in private schools as compared to public schools.

H2: Private school students have more exposure of ICTs in comparison to the students of public sector schools.
H3: More the usage of ICTs by students more likely to develop interest towards study.
H4: More the usage of ICTs by students more they have the latest information.
H5: More the exposure to ICTs betters the communication skills (including listening, writing, and speaking) of school students.
Several studies have been conducted to explore the role of ICTs in education all over the world. Abass and Tayo (2014) analyzed school administration of Public Secondary Schools in Osun state of Nigeria for the investigation of levels, availability and perception of usage of Information and Communication Technology.

The Conclusion of the survey was the absence of needed knowledge and skills to use the ICT facilities because the school administrators were well aware of the importance of ICT in the administration of the school. A few principals can apply ICT resources for managerial purposes as a lot of schools showed the absence of ICT resources. The Print technology was common among principals for different administrative purposes. Needs evaluation for ICT is a must thing to carry out to progress its deployment and development in secondary schools.

Borghoff (2011) stated in the article "The role of ICT in the globalization of firms" about enhanced globalization in the1980s and 1990s. The expansion of communication technologies and web-based information go side by side. However, the impact of ICT on the globalization of companies is little clear. Even though a rich literature of execution of ICT and scheme of global information systems in companies is available, the effect of ICT on the globalization of companies has not been openly researched from administration perception. This paper provides a rudimentary outline for the study of the power of ICT on the globalization of companies. The paper specifically reflected the effect of ICT on globalizations three subprocesses: global evolutionary dynamics, global network building and internationalization.

Ndibalema (2014) surveyed the secondary schools in Tanzania to check the behaviours of teachers towards ICT usage as an educational tool. This paper gives a good understanding towards ICT as an educational tool. The expansion of this study was influenced by different concerns of educational stakeholders regarding the level of teachers' proficiency on the usage of ICT as an educational tool. Collection of data was made by interviews and questionnaire. Random sampling was done from ten schools so, eighty teachers were involved in the first phase of this study while in the second phase through purposive sampling ten teachers were obtained. Teachers do not incorporate ICT in their teaching efficiently besides having an optimistic attitude towards the usage of ICT. The usage of ICT as an educational tool seems to be a crucial situation for teachers in Tanzania. The paper proposed further in-depth research on confidence, willingness, thinking, motivation, feeling, the belief of teachers and true practices through classrooms observations including bigger samples. The conclusion of this study was relevant to both educational policy makers and teachers in Tanzania.

Higgins and Moseley (2001) study showed that teachers perceived ICT as a useful tool for teaching and personal work and were ready to use it further due to its effectiveness. This study found the worth of ICT by teachers i.e. making teaching more easy, interesting and more fun and diverse for students and themselves as well as more motivating and enjoyable to students.

Furthermore, personal effectiveness was known to be improving materials of presentation in class, allowing larger contact to a computer for private use, giving more authority to teachers in school, giving more regard to teachers, providing specialized help through the internet and creating administration in school more effective and efficient.

Suliman (2014) stated that Information and Communication Technology is not a new thing these days. ICT and computers are the technologies without which it is difficult to survive in today and future world. The Concern of this study is to scrutinize pre-service teachers' usage of ICT, their perception of ICT, competency level and their attitudes towards ICT. This study includes eighty pre-service teachers from the public university of Malaysia from two courses i.e. Sports and Recreation and Teaching English as Second Language (TESL). SPSS was used to distribute and analyze questionnaires, which comprised of five sections. The conclusion of the findings was the absence of ICT language differences which were used between two courses. TESL students were far ahead that Sports and Recreation students in terms of ICT perception, competency and behaviour towards ICT. The study disclosed that there is a positive and significant relationship between competency level, ICT usage, attitudes and perceptions towards usage of ICT in the interactive learning process. Emphasis should be made on the significance of ICT usage for the encouragement of pre-service teachers to increase learning and teaching process.

In the light of the above-mentioned studies, it is concluded that various research studies approached that ICTs have been used in many countries of the world in several departments, due to which work efficiency has notably improved a lot, moreover, time and energy has also been saved which increases overall productivity. Furthermore, ICTs has been integrated successfully in the education sector as many studies have been done in various countries that now school administration, parent-teacher communication, teaching aids, syllabus are available online, which improves quality of education, interactive teaching and student-teacher relationship. Also, some studies indicated that private schools have more opportunity of using ICTs as teaching aid than public schools, so teachers of private sectors inculcate more ICTs in their lessons then the teachers of public schools. Along these lines, the analyst checked on all the pertinent writing accessible on the web and insignificant libraries.

There is no comparable study on the above notice point. An intelligent and methodical review of all the related writing was the focus of this study. The accompanying area demonstrates a review of the aftereffects of important studies led in different nations and demonstrates that there has not been any comparable exploration in Lahore, Pakistan. The current study is different from above-mentioned studies in many ways for instance; it checks the role of ICTs in creating knowledge gap among the students of public and private school and testing "Knowledge Gap Hypothesis" by comparing Communication skills and latest information between those who have access to technology (private school students) and those who don't have access (public school students).

Theoretical Framework

The study discovered the role of ICTs in knowledge gap by comparing the public and private schools in Lahore, Pakistan. Therefore 'Knowledge Gap Hypothesis' was applied to this study which was proposed in 1970 by Phillip J. Tichenor along with his colleagues George A. Donohue, and Clarice N. Olien. Knowledge

Gap hypothesis supports the claim that information is not always distributed evenly throughout different socio-economic individuals. It states that only those of higher socio-economic backgrounds with higher education levels will actually take this innovative information and people of lower socio-economic backgrounds are not capable to receive the information. It also claimed that communication skills of higher socio-economic individuals are better than lower socio-economic status due to their concern in the latest information. The current study assumes that private schools are for the higher socio-economic group of society and public schools are the only choice of the lower socio-economic group in Pakistan. It has been also observed that ICTs are effectively integrated into private schools in Lahore but public schools are not capable of providing this opportunity to the students. Therefore, this study applies the 'knowledge gap hypothesis' to monitor the access and impact of ICTs on knowledge, latest information and communication skills of public (lower socio-economic group) and private (higher socio-economic group) school students.

Methodology

In this research, causal-comparative method was used to obtain the data. Brewer and Kuhn (2010) explained that a causal-comparative study is one that "uses a statistical test to find relationships between dependent and independent variables after an action or event has already occurred". Usage of Information and Communication Technologies (ICTs) was independent variable whereas school children ICTs skills, latest information and communication skills are dependent variables of the current study. The essential causal-comparative methodology incorporates starting with an impact and considering for credible causes. The vital philosophy starts with cause and investigates its effects on some variable. Using a co-relational, causal-comparative research design, in the current research study, "Role of ICTs in Knowledge Gap" investigator used the questionnaire as an instrument to determine that whether ICTs caused any effect on children learning, communications skills and latest information of public and private school students. Th Target audience of the study was students of both public and private secondary schools in Lahore. The reason for selecting these respondents was that secondary school students are mature enough to interact with ICTs and improve their communication skills along with the latest knowledge. "They can learn and understand different technological advancement in life as well as implement the equipment in their lives (Nobert, et.al.2000)".At the time of this study, Lahore was divided into nine towns and every town has public and private schools.

The Stratified sampling method was used to pick samples from the population because the current research study deals with students of the same class and the same level of education and compare those who have or have no ICT facilities. The study selected four towns of Lahore including Shalimar town, Samanabad Town, Gulberg Town, Iqbal Town based on availability of public and private secondary schools. Therefore, eight schools were approached in total to identify the targeted audience. The Sample size was comprised of total 432 students. It was tried to select an equal number of students from private and public schools therefore 216 students were targeted from each sector. The Instrument (Questionnaire) used for data collection was formulated in English and constructed carefully. It consists of 33close ended questions and has three sections for testing ICT abilities, latest information and communication skills (listening, writing and speaking) of students. The data was

collected in three months during Feb. 2016 to April 2016. To test the relationship between suggested variables in the hypothesis, statistical analysis t-test was used which is applicable when two groups or variables are compared, based on one factor (independent variable). Therefore, the current research study has two groups (public and private school students) so t-test was applied.

Findings

To analyze the hypotheses t-test was applied and results are presented below:

H1: ICTs are more significantly available in private schools as compared to public schools.

Table No 1

Result of t-test regarding availability of ICTs in public and private schools

		Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig.(2-ıiled)	Mean Difference	Std. Error Difference	Lower	Upper
Devices available at school (desktop)	Equal variances assumed	269.543	.000	-9.049	430	.000	-.481	.053	-.586	-.377
	Equal variances not assumed			-9.049	295.27	.000	-.481	.053	-.586	-.377
Devices available at school (Laptop)	Equal variances assumed	411.453	.000	-9.852	430	.000	-.440	.045	-.528	-.352
	Equal variances not assumed			-9.852	292.95	.000	-.440	.045	-.528	-.352
Devices available at school (Tablet)	Equal variances assumed	200.776	.000	-6.046	430	.000	-.176	.029	-.233	-.119
	Equal variances not assumed			-6.046	215.00	.000	-.176	.029	-.233	-.119
Devices available at school (Multimedia)	Equal variances assumed	623.777	.000	-33.557	430	.000	-1.278	.038	-1.353	-1.203
	Equal variances not assumed			-33.557	215.00	.000	-1.278	.038	-1.353	-1.203
Devices available at school (Printer)	Equal variances assumed	41.962	.000	-28.404	430	.000	-1.347	.047	-1.440	-1.254
	Equal variances not assumed			-28.404	429.77	.000	-1.347	.047	-1.440	-1.254

*p>0.05

Table 1 shows the result of t-test i.e. p = 0.000 is significant at α=0.05 which confirms the statistically significant difference among the availability of ICTs between public and private schools. So, it can be inferred that there is a significant difference between groups means, therefore H1 "Availability of ICTs is more in private school as compared to public schools" is accepted.

H2: Private school students have more exposure of ICTs in comparison to the students of public sector schools.

Table No. 2 *Result of t-test regarding exposure of ICTs among the students*

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence the interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Tasks done by using ICTs(Making assignments on Computer and Laptop)	Equal variances assumed	772.279	.000	-10.279	428	.000	-.463	.045	-.552	-.374
	Equal variances not assumed			-10.279	213.00	.000	-.463	.045	-.552	-.374
Tasks done by using ICTs(Create presentation)	Equal variances assumed	106.483	.000	-28.477	429	.000	-1.033	.036	-1.104	-.961
	Equal variances not assumed			-28.477	214.00	.000	-1.033	.036	-1.104	-.961
Tasks done by using ICTs(Sending and reading Email)	Equal variances assumed	47.519	.000	-15.417	429	.000	-.749	.049	-.845	-.654
	Equal variances not assumed			-15.417	349.40	.000	-.749	.049	-.845	-.654
Tasks done by using ICTs(Install and run software's)	Equal variances assumed	105.371	.000	-15.283	430	.000	-.676	.044	-.763	-.589
	Equal variances not assumed			-15.283	423.704	.000	-.676	.044	-.763	-.589
Tasks done by using ICTs(Take prints)	Equal variances assumed	58.796	.000	-15.696	430	.000	-.681	.043	-.766	-.595
	Equal variances not assumed			-15.696	350.53	.000	-.681	.043	-.766	-.595
Tasks done by using ICTs(Using new mobile phone technology)	Equal variances assumed	97.254	.000	-11.959	430	.000	-.606	.051	-.706	-.507
	Equal variances not assumed			-11.959	335.19	.000	-.606	.051	-.706	-.507
Tasks are done by using ICTs(Browsing on internet)	Equal variances assumed	148.557	.000	-23.542	430	.000	-.963	.041	-1.043	-.883
	Equal variances not assumed			-23.542	215.00	.000	-.963	.041	-1.043	-.883
Tasks done by using ICTs (Transfer data from one device to other)	Equal variances assumed	95.131	.000	-18.494	430	.000	-.773	.042	-.855	-.691
	Equal variances not assumed			-18.494	379.83	.000	-.773	.042	-.855	-.691

*p>0.05

Table 2 shows the exposure of ICTs to the public and private school students and the result of t-Test confirms that p = 0.00 is significant at α=0.05. So, it proves that there is a significant difference between group means thus H2 is accepted. "Private school students have more exposure of ICTs in comparison to the students of public sector schools".

H3: More the usage of ICTs by the students more likely to develop interest towards study.

Table No. 3

Results of t-test regarding role of ICTs in developing students interest towards study

		Levene's Test for Equality of Variances		**t-test for Equality of Means**					**95% Confidence Interval of the Difference**	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
View about statements (ICTs are very helpful for study)	Equal variances assumed	98.224	.000	-7.769	430	.000	-.579	.074	-.725	-.432
	Equal variances not assumed			-7.769	346.657	.000	-.579	.074	-.725	-.432
View about statements (ICTs improve the class atmosphere)	Equal variances assumed	32.100	.000	-4.563	430	.000	-.315	.069	-.450	-.179
	Equal variances not assumed			-4.563	354.960	.000	-.315	.069	-.450	-.179
View about statements (ICTs are supportive to understand topics)	Equal variances assumed	11.125	.001	-3.978	430	.000	-.250	.063	-.374	-.126
	Equal variances not assumed			-3.978	379.387	.000	-.250	.063	-.374	-.126
View about statements (ICTs are just time wasting)	Equal variances assumed	127.750	.000	16.669	430	.000	1.287	.077	1.135	1.439
	Equal variances not assumed			16.669	354.406	.000	1.287	.077	1.135	1.439
View about statements (Due to ICTs student become independent in learning)	Equal variances assumed	14.517	.000	-3.395	430	.000	-.185	.055	-.292	-.078
	Equal variances not assumed			-3.395	368.536	.000	-.185	.055	-.292	-.078
View about statements (ICTs are difficult to use)	Equal variances assumed	121.069	.000	15.595	428	.000	1.265	.058	1.131	1.398
	Equal variances not assumed			15.595	325.001	.000	1.265	.058	1.131	1.398
View about statements (Using ICTs are	Equal variances assumed	63.827	.000	-5.251	430	.000	-.352	.067	-.484	-.220

entertaining)	Equal variances not assumed			-5.251	344.214	.000	-.352	.067	-.484	-.220
View about statements (ICTs increase the efficiency of work)	Equal variances assumed	45.503	.000	-5.612	430	.000	-.370	.066	-.500	-.241
	Equal variances not assumed			-5.612	325.023	.000	-.370	.066	-.500	-.241
View about statements (ICTs are helpful to remember things more easily)	Equal variances assumed	9.129	.003	-4.468	430	.000	-.231	.052	-.333	-.130
	Equal variances not assumed			-4.468	406.483	.000	-.231	.052	-.333	-.130
View about statements (ICTs increase the concentration of class room teaching)	Equal variances assumed	13.411	.000	-3.133	430	.000	-.141	.050	-.245	-.066
	Equal variances not assumed			-3.133	306.458	.000	-.141	.050	-.245	-.066

*p>0.05

Table 3 indicates the results of t-Test which monitors the difference in developing student's interest towards study due to the usage of ICTs. The P value is 0.000 which verifies a significant result at α=0.05. Therefore it confirms that there is a significant difference between the interest of private school students towards study as compared to the public school students thus the hypothesis "More the usage of ICTs by the students more likely to develop interest towards study" is accepted.

H4: More the usage of ICTs by students more they have the latest information

Table No. 4

Results of t-test regarding respondents ICTs Usage and latest information

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Interest	Equal variances assumed	10.131	.003	-4.468	430	.000	-.230	.052	-.333	-.130
	Equal variances not assumed			-4.468	406.473	.000	-.230	.052	-.333	-.130
Curious about getting latest information	Equal variances assumed	119.070	.000	15.590	428	.000	1.260	.058	1.130	1.396
	Equal variances not assumed			15.590	325.001	.000	1.260	.058	1.130	1.396
Latest Information about politics (Pakistan Muslim League (N) won the maximum seats in election 2013.)	Equal variances assumed	419.493	.000	-9.860	430	.000	-.440	.045	-.528	-.352
	Equal variances not assumed			-9.860	292.956	.000	-.440	.045	-.528	-.352
Latest Information about science (World's largest solar plant in Bahawalpur.)	Equal variances assumed	63.827	.000	-5.251	430	.000	-.352	.067	-.484	-.220
	Equal variances not assumed			-5.251	344.214	.000	-.352	.067	-.484	-.220
Latest Information about politics (Pakistan started the economic corridor with china.)	Equal variances assumed	10.958	.004	-1.113	430	.000	-.065	.052	-.168	.038
	Equal variances not assumed			-1.113	403.609	.000	-.065	.052	-.168	.038
Latest information about sports (Germany won the Football world cup of 2014.)	Equal variances assumed	200.776	.000	-6.046	430	.000	-.176	.029	-.233	-.119
	Equal variances not assumed			-6.046	215.000	.000	-.176	.029	-.233	-.119
Latest Information about Science (Hover Board is the focus of science on travel today.)	Equal variances assumed	494.645	.000	-9.535	429	.000	-.370	.038	-.435	-.290
	Equal variances not assumed			-9.535	326.628	.000	-.370	.038	-.435	-.290
Latest Information about Sports (Fatima Baig is a First Pakistani woman who climbed the Mount Everest.)	Equal variances assumed	39.969	.000	28.303	430	.000	-1.357	.047	-1.439	-1.261
	Equal variances not assumed			-28.303	429.773	.000	-1.357	.047	-1.439	-1.261

*p>0.05

Table 4 demonstrates the knowledge of respondents' i.e. latest information regarding science, politics and sports. Results of T-Test i.e. p = 0.00, 0.03, 0.04 are significant at α=0.05. So, it can be said that there is a significant difference between the latest knowledge of public and private school students thus the hypothesis "More the usage of ICTs by students more they have latest information" is accepted.

H5: More the exposure to ICTs better the communication skills (listening, writing, speaking) of school students

Table No. 5 *Results of t-test regarding role of ICTs and communication skills of public and private school students*

		Levene's Test for Equality of Variances		t-test for Equality of Means					95%Confidence the interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Writing skills (Write sentences based on pictures)	Equal variances assumed	40.863	.000	-22.893	430	.000	-1.439	.062	-1.597	-1.212
	Equal variances not assumed			-22.893	429.663	.000	-1.439	.062	-1.597	-1.212
Writing skills (Respond to an email)	Equal variances assumed	21.591	.000	-39.414	430	.000	-2.245	.057	-2.357	-2.133
	Equal variances not assumed			-39.414	429.537	.000	-2.245	.057	-2.357	-2.133
Speaking skills (Read a text)	Equal variances assumed	41.975	.000	-23.200	430	.000	-1.519	.065	-1.647	-1.390
	Equal variances not assumed			-23.200	423.335	.000	-1.519	.065	-1.647	-1.390
Speaking skills (Answer the question)	Equal variances assumed	23.990	.000	-26.652	430	.000	-1.634	.061	-1.755	-1.514
	Equal variances not assumed			-26.652	425.153	.000	-1.634	.061	-1.755	-1.514
Listening skills (Describe a picture)	Equal variances assumed	38.776	.000	-3.027	430	.003	-.111	.037	-.183	-.039
	Equal variances not assumed			-3.027	405.650	.003	-.111	.037	-.183	-.039
Listening skills (Describe a picture)	Equal variances assumed	514.644	.000	-9.637	429	.000	-.370	.038	-.445	-.295
	Equal variances not assumed			-9.650	326.628	.000	-.370	.038	-.445	-.295
Listening skills (Response to a conversation)	Equal variances assumed	484.604	.000	-9.616	428	.000	-.372	.039	-.448	-.296
	Equal variances not assumed			-9.616	329.846	.000	-.372	.039	-.448	-.296

*p>0.05

Table 5 illustrates the result of T-Test to see the statistically significant difference between exposure of ICTs and better communication skills of public and private school students. The result of test i.e. P=.00 is significant at α=0.05. It shows that there is a significant difference between group means thus accepts the hypothesis "More the exposure to ICTs better the communication skills (including listening, writing, speaking) of school students. It verifies that students of private schools have better communication skills as compare to the public schools.

Discussion

As far as the availability of the ICT devices at schools concerned the findings of the study explained that most of the private schools have different ICT (desktop, laptop, tablet, multimedia and printer at their schools. While in the contrary public schools have only desktops for their students' use and other devices including laptop, tablet, multimedia and printer were not available to almost all of them. This indicates that private schools have more devices available at schools for their students' use in comparison to public schools so they are in better position to educate, train, enhance the knowledge and build the capacity of the students. A study by Qureshi (2013) supports the result of this study, it says "the private school system, is providing quality education for the past 34 years by implementing ICTs for giving challenging, creative, and well –rounded learning environment for the students in order to develop higher order thinking". Qureshi (2013) further states "due to less and unavailability of devices, public school students were not able to perform these tasks at school". Likewise Qasim (2015) states in a research study that "the government of all the provinces was taking positive steps for introducing information communication technology and recommending teachers to allocate special attention for ICTs in schools in order to the active learning but due to the lack of ICTs facilities they are unable to create that environment".

The results also exposed that almost all respondents from private schools were had better exposure of ICTs thus have better knowledge. They are able to make better assignments and presentations due to their access to the internet. Most of them (three quarter) respondents were capable of installing and run software's, send and read email, take prints, use new mobile phone technology and transfer data from one device to other without the support of others. The data of present study also confirmed that few of the respondents (6.25 percent) of public school were in a position to make presentations and use new mobile phone technology at their own and the rest of them were not able to handle these tasks by themselves. They need assistance and guidance of others to perform these actions. Therefore it can be said that performance of private school students is much better than public school students because of the availability and exposure to ICTs. The result of this study coincides with another study by Habib (2004) who conducted a study into school performance to understand which schools were doing better, by assessing the quality of education. The study concluded that "students in private schools were performing better than students in public schools, in all subjects, due to the availability of different facilities and devices in school". Similarly, the findings of a study by Zaman (2013) also conclude that "private school system in Pakistan such as the Beaconhouse, The Grammar School, etc. have been making effective use of advanced ICT tools to enhance their teachinglearning practices. Its outcome is that they are

developing a deeper level of thinking and reasoning among their students, whereas only half of the public school students can hardly make simple assignments on the computer".

The findings also exposed the views of students regarding use of ICTs in classroom, according to the data majority of private and public school students agreed that ICTs are not only helpful in remembering things but also support in understanding concepts more easily. They were from the viewpoint that use of ICTs improves the classroom teaching atmosphere thus very supportive in developing learning skills and to understand topics in an interesting way (Table.3). Another research study by Kuo in 2009 also exposed the same result. It concludes that "the blossoming of ICTs like multimedia technology including visual aids, sounds, video clips, animations, and so on motivates learners, "attracts their attention and elevates their interest in learning".

Due to ICTs students did not only become independent in learning but they also developed the efficiency of work and feel excited when they use ICTs devices instead of books.Another study by Anderson (2005) confirmed that information communication technology is changing students' learning habits in homes as well as in institutions and the real potential of information communication technology is the way it changes learner's habits and their lifestyles. An additional study by Ali, Haolader and Muhammad (2013)also revealed that "ICT usage has revolutionized all the fields, the innovations that ICT has brought in action in teaching-learning process include: quick access to information, online student registration, increase efficiency of work, reduce burden of keeping hardcopy all the time and networking with the resourceful persons as well as e-learning". In the field of education, all the abovementioned factors enhanced the chances of excellent integration of ICT in the teaching-learning process. On the other hand, the public school students didn't have adequate ICTs available at their schools so they were lacking behind in studies in comparison with private school students. The unavailability of ICTs resources or their less usage, public school students feel difficulty in handling of these devices which make them less competent than private school students and affect their efficacy.

Most of the public and private school students were also asked about their interested fields and nearly all show interest in politics, sports and science. But the result uncovered the perspectives of public and private school learners regarding the use of ICTs for getting latest information specified that majority of private school students have knowledge about latest information regarding their interested fields i.e. politics, sports and science whereas most of the public school respondents didn't have the latest information of that specific field (Table.5). Therefore it can be concluded that ICTs are creating an important role in providing the current information and frequently updating the users regarding the mentioned fields.

Results of writing skill enlightened that majority of respondents from private school scored 4 which is highest in the test while in comparison to public school respondents the only one-third student scored 4 and rest of them scored 0. This finding indicates that private school respondents have better writing skills as compared to public school because they use the online available educational material (Table.4).The result is also supported by the findings of a study conducted by Younis (2013) that "private school students who have good writing skills encourage learners' independence and self-discovery skills like

searching for educational related materials online".

The findings also revealed that most of the private school respondents scored 3 in speaking test whereas only one-third of public school respondents scored 1. These statistics indicate that as private schools were using new ways and means for the developing of communication skills and enhancing knowledge of their student, therefore, they have effective speaking skills and capable to interact confidently with others as compared to public school students. Alamand Bashir's studies conducted in 2013 also strengthen the result of present study; it concludes that "due to the lack of awareness of new methods, technologies and approaches of teaching students' speaking skills remain poor".

It is evident from the findings that majority of private school respondents have better listening skills provide and gave correct answers to the conversation in comparison of public school respondents, who gave more wrong answers (Table.4). This result indicates that private school students have developed better listening skills as they are interacting more with ICTs, which help them to receive and understand messages precisely, which is the key to effective communication. Better listening skills of private school students can gratify and support them to take part in a conversation with other and achieve a high level of confidence. Stabb (1992) support the results by emphasizing that "Listening is an active process of constructing meaning and for this to happen, listeners need active mental involvement. Schools which provide good instructions and lots of practice can help improve listening skills, of students this won't happen without meaningful talk in the classroom". In Lahore, Pakistan mostly children, belong to high socioeconomic sector prefer to admit in private schools equipped with ICTs and also enjoy these facilities at home whereas children of a lower socio-economic sector of the society go to public schools and also cannot afford ICTs at home. Resultantly the students of private schools enhance their knowledge and develop their communication skills whereas Public school students become poor in communication skills which keep them slow in success. Therefore a significant gap is found in knowledge and communication skills of private and public school students. These findings also support the knowledge gap hypothesis assumption i.e. higher status people generally have more education, which improves their comprehension, memory and communication skills.

Conclusion

Broadly stated, the article concludes that private school have more ICTs available at school and the students are capable to use these new technologies for acquiring information, improving comprehension and communication skills as well. Further, the access to ICTs devises particularly different types of electronic gadgets, personal computers, tablets, laptops are giving an easy access to internet at home and its integration in private schools study process, the students of private school, spend enough and dedicated time in using them, thus they get command over modern technology which enhances their knowledge, strengthen their capabilities and help in building personality. On the contrary public school students, who do not have the opportunity to use ICTs at home or at school due to certain limitations, are lagging behind. Therefore, it can be concluded that due to the usage of ICTs private school students have better communication skills which improve their memory, reading, and comprehension skills as compared to public school students. Moreover, the results of the study support the knowledge gap assumption that instead of closing the gap, the introduction of these technologies is widening the gap between

the socio-economic groups of the country by increasing the space between information of poor and rich.

On the basis of the conclusion, this study recommends the following suggestions for the improvement of the situation.

1. ICTs play a vital role in classroom learning so it is suggested that public schools should be encouraged and provided with the facility of latest ICTs so that students may have access to the ICTs devices in order to compete their private school counterparts.
2. Public school should integrate ICTs in the learning process to build the confidence of the teachers and students.
3. It was evident from present research that public school students feel difficulty in learning and adopting ICTs, so training sessions and workshops should be arranged for students along with teachers and school administrators to build their ability and prepare them with skills, understanding and knowledge on the use of ICT for education.

The inspiring role of ICT in learning has also been broadly acknowledged by the research therefore, the government should facilitate public schools with ICTs and related coaching material which is an integral part for getting the success of today life.

References

Abass, T.B., &Tayo, S.S. (2014).Information communication technology and public School administration in Osun State, Nigeria.*International J. Soc. Sci. & Education*, 4(4), 782-791.

Adesoji, F.F. (2012). Undergraduate students' perception of the effectiveness of ICT use in improving teaching and learning at Ekiti State University, Ado-Ekiti, Nigeria. *International Journal of Library and Information Science*, 4(7), 121-130.

Alam, Q. & Bashir, A. (2013).Improving English oral communication skills of Pakistani public school's students.*International Journal of English Language Teaching*, 2(1), 17-36. Retrieved on August 18, 2016, from http://www.eajournals.org/wp-content/uploads/Improving-English-Oral-Communication-Skills-Of-Pakistani-Public-Schools-Students.pdf

Alexander, J.O. (1999). Collaborative design, constructivist learning, information technology immersion, & electronic communities: a case study. Interpersonal computing and technology: *An Electronic Journal for the 21st Century*, 1(7), 1–28.

Ali, G., Haolader, A.F. & Muhammad, K. (2013). The Role of ICT to Make Teaching-Learning Effective in Higher Institutions of Learning in Uganda.*International Journal of Innovative Research in Science, Engineering and Technology*, 8(2), 4061-4073.

Anderson, J. (2005). IT, e-learning and teacher development.*International Education Journal, 5*(5), 1-14. Retrieved on September 5, 2015, from http://files.eric.ed.gov/fulltext/EJ903883.pdf

Brewer, E. W., & Kuhn, J. (2010).Causal-comparative design.In *Encyclopedia of research design.*Retrieved on December 2, 2015, from http://sk.sagepub.com/reference/researchdesign/n42.xml

Borghoff, T. (2011).The role of ICT in the globalization of firms.*Journal of Modern Accounting and Auditing*, 10(7), 1128-1149. Retrieved on August 3, 2015 from http://www.davidpublishing.com/davidpubli

shing/Upfile/2/28/2012/2012022875515761.pdf

davenport, H.T. & Prusak, L. (1998). Working Knowledge: How Organizations Manage What They Know. Retrieved on November 2, 2015, from http://www.kushima.org/is/wp-content/uploads/2013/09/Davenport_know.pdf

Evers, D. H. (2002).Knowledge Society and the Knowledge Gap. Retrieved on September 3, 2015, from http://www.infoamerica.org/documentos_pdf/kgt2.pdf

Habib et al. (2004). Study on Comparing School Performance to understand which Schools are doing better by Assessing and Comparing Quality of Education. Retrieved on September 3, 2015, from www.aepam.edu.pk/DownPubs.htm

Higgins, S. & Moseley, D. (2001) Teachers‟ thinking about ICT and learning: beliefs and outcomes. *Journal of Teacher Development,* 5 (2), 191-210. Retrieved on September 5, 2015, from http://dx.doi.org/10.1080/13664530100200138

Kuo, L. L. (2009). The effects of Youtube listening/viewing activities on Taiwanese EFL learners' listening comprehension.Doctoral dissertation, La Sierra University, the USA.Retrieved January 4, 2014, from http://www.proquest.com.

Ndibalema, P. (2014). Teachers' attitudes towards the Use of information communication technology (ICT) as a pedagogical tool in secondary schools in Tanzania: The Case of Kondoa District. *International Journal of Education and Research,* 2 (2), 01-16. Retrieved on August 1, 2015, from http://www.ijern.com/journal/February-2014/11.pdf

Robert, A., DelRosso, P., Farrell, V., Peddle, R., Jeffrey, B., &Lilly, P.(2000). Retrieved on August 9, 2015, fromhttp://www.mun.ca/educ/ed4361/virtual_academy/campus_a/ateacher.html

Oyewole M. O. (2014). Information and Communication Technology as an aid to Learning. Retrieved on December 1, 2015, from http://www.seekdl.org/nm.php?id=4721

Persaud, A. (2001, April 4). "The Knowledge Gap."*Foreign Affairs*,80(2), 107-117. Retrieved on March 6, 2015, from https://www.foreignaffairs.com/articles/2001-03-01/knowledge-gap

Qasim Ali, Q. M., Nargis, N., Yasmeeen, R., &Iqbal, Z. (2015). ICT use for the effective teaching-learning process in secondary schools in Punjab Province.*Asian Journal of Social Sciences & Humanities*, 3 (4), 138-143. Retrieved on September 6, 2015, from http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol. 4(3)/AJSSH2015(4.3-14).pdf

Qureshi, A.A.(2013). Impact of leadership on the Meaningful use of ICT.*Science direct*,1744 – 1748. Retrieved on September 6, 2015, from http://www.sciencedirect.com/science/article/pii/S1877042813035544

Roy, A. (2013). Importance of knowledge. Retrieved on September 2, 2015, from http://www.importantindia.com/2457/importance-of-knowledge-in-life/

Staab, C. (1992). Oral language for today's classroom. Markham, Ontario: Pipping Publishing.

Suliman, A., Khaidzir, F., &Khaidzir, M.F.S. (2014).A Comparative overview of ICT tools between the pre-service teachers. *International Journal of English and Education*, 3 (3), 367-377. Retrieved on July 4, 2015 from http://ijee.org/yahoo_site_admin/assets/docs/34.184152147.pdf

Weng, S.C. (2000). Mass Communication Theory and Practice. Taipei: Sanming.

Youns, M.M., Nordin,N., Salehi,H., Embi,A.M. &Salehi,Z. (2013). The Use of Information and Communication Technology (ICT) in Teaching ESL Writing Skills. *Canadian Center of Science and Education*,7(6), 1-8. Retrieved on August 6, 2016 from http://edtech2.boisestate.edu/williamstewart287/512/module5/assets/TheUseOfICTInTeachingWritingYunusetal2013.pdf

Zaman, A., Farooq, R.A., &Kayani, M. (2013).A cost benefit analysis of private and public schools in district Malakand of North West frontier province. *VFAST Transactions on Education and Social Sciences*, 1(1), 01-08. Retrieved on September 2, 2015 from vfast.org/index.php/VTESS/article/download/23/39