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## INTEGRATION OF ICT IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE STUDY OF PUBLIC AND PRIVATE SCHOOL TEACHERS OF PAKISTAN

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### ABSTRACT

*The aim of this study was to check the integration of ICT in comparison of public and private school teachers in early childhood education. This study directed conceptual framework from theories of Diffusion of Innovation (Rogers, 2003) and from TAM model (Technology of Acceptance) by (Davis, 2003). The nature of this research was descriptive in nature and quantitative method was selected for data collection. This study based on public and private school teachers of tehsil Rawalpindi, there were 4,160 public schools' teachers and 837 private teachers in tehsil Rawalpindi in which 320 public and 368 in private are primary teachers. Data were collected from 80 public and 80 private primary level school teachers as a sample. Five point Likert scale questionnaire was developed for data collection. Data analyzed through SPSS 21<sup>st</sup> version. Therefore, result shows that there is significant difference found between public and private schools teacher's perception regarding effectiveness of ICT, ICT facilities, skills of teachers for ICT and assimilation of ICT in teaching in early education. Government may participate to encouraged usage of ICT in government schools for teaching and learning process.*

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**KEYWORDS**

*Information and Communication Technology, Public and Private School Teachers, Early Childhood Education*

**INTRODUCTION**

ICT means “Information and Communication Technology”. Its change the life in many aspects of life. It plays an important role in many aspects as medicine, touristy, travelling, business enterprise and other fields. ICT have tremendous impact in previous two, three decades. These fields work hugely today as compare their work in past because of rapid improvement of technology. Instead of these fields there are less experience in change and less influence of technology in the field of education by Pramanik (2011). There is little doubt that ICT play a critical job in the constantly lives of individuals in these present occasions.

Education is a most important factor in term of buildup human capital in a country and makes a country scientifically modern and move in a good way for economic development. Therefore, fast development and betterment in ICT have encouraged spreading of innovation in education (Gulbahar and Guven, 2008). ICT with regards of education is seen from two sides or having two wings the technology as a data medium, and the innovation as a development medium by Papert (1999) and education have itself two sides that known as (acquiring data and skills) and interpretation (generating, seeing and creating information). The idea of our work and recreation time has been changed because of nearness of information and communication technology by Yelland (2006). This change may be addressed, as change does not really mean positive results are the outcome. Early childhood education has also started to mirror this change, yet in different ways by Zevenbergen (2007).

While there is variety of productions identified with the point of ICT in ECE, the examination base eagerly identified with the job of teacher from their perception gave an impression of being less seeming, especially in connection to the early childhood education. If, as indirect by these recently referenced examinations, ICT offers significant chances to improve young children’s adapting, at that point it is important that the general position of ICT in ECE is conveyed to the external and legally tended and check from all edges by Brown and Murray (2006).

Also, by only providing schools and early childhood centers focuses on computerized technology, it is very dissimilar to upgrade children’s learning in how it is advanced, especially as teacher may not be completely furnished or experienced with ICT to privately use these properties, in manner that are planned and important for kids. It is additionally recommended that children’s related participation and information of ICT that they convey with them to early childhood education training or school setting can

commonly go unrecognized, in this manner the potential for learning through these open doors can be missed (Somekh, 2007; Zevenbergen, 2007). Along these lines, in request to understand the potentials for children's learning, which ICT is recommended to offer and to look at the regularly underestimated reactions and commitment with ICT, this job should be more clearly recognized and examine. We all have restricted ways of understanding in which preschools teachers utilize ICT as a component for academic practices by Vorkapic and Milovanic, 2012. The central type of ICT in preschools, the PC's are frequently utilized as documentation or show device by McPake et al., 2012; Saljo and Linderöth 2002.

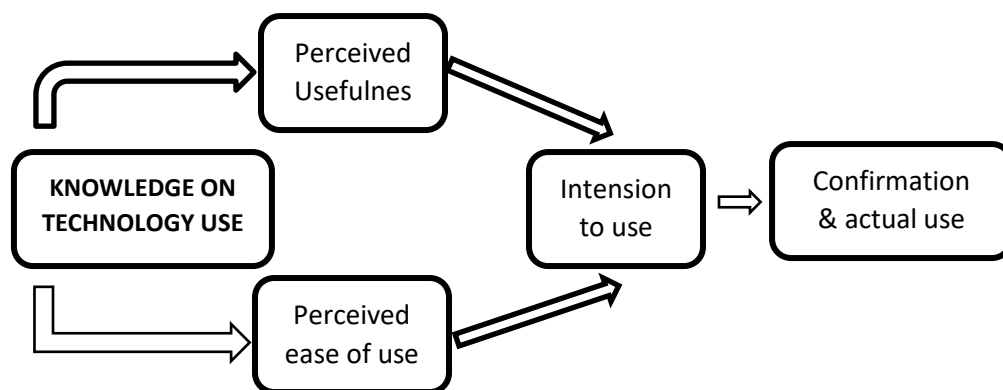
Studies of Law, 2008; Lin 2012; McPake et al, 2012 that there is moderately restricted investigation on how ICT can successfully fix in preschools academic practices. Educational practices interfered by ICTs in primary schools stand generally subject to teacher's observations and hopes. So, it is frequently struggled that choices about whether and how to utilize ICT in primary schools should finally rely upon preschools teacher's frame of mind, learning and abilities by Ertmer, 2005; Hew and Brush, 2007. There has recently been significant discussion with respect to the job that ICT plays in ECE and unrelatedly of whether it is suitable mode for young children's learning. School of researches proposes that PCs are an essential method through which children can investigate ideas which generally would be extremely testing to get it. Guardians of this view emphasize that it is authoritative for teachers to build up awareness of how innovation can be utilized correctly by Clements, (1999).

According to the studies of Hue and Ab Jalil, 2013 that educational frame work all over the world are winding up successfully controlled to implement new ICT tools in educational programs to give substitutes to knowledge and abilities that are required to them in 21<sup>st</sup> century. In several studies emphasized on utilization that it is used as requirement for refining excellence in teaching learning process. From previous studies government training institutions were valued the utilization of data and communication advancement is an important problem for improving capability of teaching and adapting all over the globe (Plum et al, 2009; Sahin kizil 2011) similarly checked that the utilization of ICT educational purposes produce positive result with respect to the replacements, for example: expanded inspiration, giving effective resources and better access of data.

Combination of ICT is certainly not a straightforward application by Bhasin, (2012). The study suggests there are numerous boundaries to apply it in educating learning process. (Bingimals) 2009 studies show that Educators have an influential need for the combination of ICT in preparation, however they practiced many barriers. The actual barrier was absence of self-confidence, absence of skill and absence of resources. Since absence of confidence, ability and accessibility observed be the basic parts of

modernization joining in schools. ICT assets with tools and programming, powerful expert's improvement, suitable time and help may specify to the teachers. Nobody section suitable to give great teaching. In any case, the nearness of all parts builds the like hood of amazing joining of ICT in educating and learning opening.

The term ICT include the associated kinds of equipment and programming: PCs (counting work area, Desktop PCs), computerized cameras and advanced camcorders, Mind and communication programming and gadgets the network, Phones, fax machines, cell phones and recording devices, In-built stories, signified settings and PC changes, Programmable toys and control advancement, Videoconferencing advancement shut circuit TVs, Information projectors, electronic white boards etc. The purpose of this study was checking the teacher's perception relating to integration of ICT in early year of studies. This study supported two theories of Diffusion of Innovations by Rogers, 2003, the TAM (Technology Acceptance Model) model by Davis, 2003 has been custom-made as a conceptual framework for this study. Rogers' theory nominative because the procedure by that an innovation is sent through bound channels and once a while among the people of social organization. The procedure can begin with "Knowledge" of the primary channel that represent qualities of the fundamental leadership unit by the ICT users therefore to integrate the technology. that's find yourself with "Confirmation" to simply accept the technology and integrate it by the users. The TAM model consists of the many components that represent the procedure of ICT receiving by people with; behavioral import, perceived utility and perceived simple use. The perceived utility refers to what proportion individual believe on the advantage from the employment of a selected technology by enhancing the task performance, and importance of technology being easy for the people. Typically, TAM model created to live the effectiveness or success of a technology in serving to grasp the esteem and risk of a selected framework.



**Figure 1: Conceptual framework of study (Davis, 2003; Rogers, 2003)**

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**LITERATURE REVIEW**

Technologies are specifically the communication tools, gives teachers and students with such huge numbers of interesting devices that can be utilized to boost the educating and learning process. These devices assist the teachers with having more favorable position of utilizing innovation in teaching and encourage the students to learn better and quicker.

Lim, 2012; and Yelland, 2011 studies states that ICT integration enhance the general progress of a child in early education. ICT devices exercises advance kids' basic reasoning, critical thinking, basic leadership capacities, imagination, verbal, societal capacities and self-confidence by Maynard, 2010; NAEYC 2012; and Yelland 2005. Although for the determination of young kids learning ICT can be exploited.

Diffusion of innovation of theory has been utilized inside many educational studies (Rogers, 2003). Studies by Rogers, 2003 defined the process of change "an information seeking, information tackling activity" facts of advantages and disadvantages of development encourage child to reduce hesitation. Technology advancement process have five steps according to Rogers, 2003: (i) Information (ii) Encouragement (iii) Choice (iv) application and (v) validation. These steps are interlinked with one another. This process starts from information arrangement. In this step individual find out the recent advancement and knowledge about progress. There are the basic questions in information stage that are "WHAT?" "HOW" and "WHY". In this step child knows that how advancement is occurred and why and how its work? This step occurs when the child has positive or negative point of view round development, also occur when there is good or bad mentality against that technology does not lead to direct or indirect ways to selection or rejection. In third step child accept or ignore the improvement. At this step modernization refers to the actual use of technology at its best level, rejection means not to receive development. In forth step technology is applied.

The TAM model is fitting and supported in showing the impact between an individual's related knowledge with a technology and how useful and simple that technology will be utilize. A great part of the research has shown that this perception of usefulness and comfort of use enables one to create frames of mind towards that technology to decide if they will utilize the technology by Davis, (1989); Venkatesh and Davis, (2000). For this situation, the frame of mind towards technology will influence one's behavior and decision to agree to the strategies. If the implementations of information confirmation and security approaches includes technological barriers that decline usefulness of the technology or are too hard manage, the user is less likely to utilize the technology, less motivated to follow the plan. According to Davis et al., (2009) framework use was unlikely because the technology analysed was of an individual and individual nature (i.e., use of the technology was not subject to others' use of a similar advancement)

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determined by social impacts.

Variety of advances could improve kid's coordinated struggle and collaboration with companions. Studies of Infante, Weitz, Reyes, Nussbaum, Gómez and Radovic (2010) state that a computer planned games of various players utilizing one screen only and A few communication gizmos encouraged schoolchildren to collaborate and share in order to complete the change activities. Also, innovation is broadly utilized as specialized devices, For example: email, cell phone and web cameras. Therefore, the utilization of these ICT may add to upgrade kids' interpersonal abilities by McCarrick and Li (2007).

Teacher impression of ICT is vital as it shapes a character that encourages them to be great and horrible towards the use of the most present-day innovation in an area of teaching. Past research concentrated on clarifying innovation response and acknowledgment; how innovation's qualities influence a person's view of modernization. This influences the use of clear innovation and mechanical preparation by Porter & Donthu, (2006) to grasp and utilize new developments to accomplish objectives at home, in everyday life, and at work by Parasuraman, (2000).

Eryilmaz, (2015) has appeared educational practices planned inside mixed situations are useful to the students as far as happiness, learning, attention, and inspiration. The utilization of the mixed learning approach in teacher planning programs enhances teacher performance in ICT joining and creating positive judgements towards e-courses. The investigation of (Plesec, Gas paric and Pecar 2016) was led on an example of pre-benefit grade teachers. The reason for that review was to decide the power, level, and element of student posts online. To effectively start and represent ICT in teaching depends on teachers' help and frames of mind. Among the elements that impact effective integration of ICT into teaching is teacher's natures and beliefs towards innovation by Hew & Brush, (2007) and Keengwa & Onchwari (2008).

According to studies of (Prestride, 2012) states that appropriate skill for teacher is ICT based teaching, but it doesn't adopt by all. One of alternate worries that Waller, (2007) raises is the desire that teachers will keep on utilizing ICT in their teaching and organization with the emphasis on e-Learning and e-certainty which prompts an appreciation of teacher's outstanding task at hand also, a confusing of the work/life partition. According to few researches by Russell and Bradley, 1997; and Cuban, 2011 shows that there are some difficulties and barriers are existing in ICT: need of ICT aptitudes, framework absence, time absence, and absence of organizational help, absence of accessible specialized work staff, absence of preparing and trouble of ICT joining in innovation. Reports by numerous nations on ICT facilities, that many teachers don't make consistent utilisation ICT in one's instructional strategies and

learning process in classrooms (Cuben, 2001; Seaman, 2006). By (Look, 2005) the perceivable advantages of utilization of ICTs in education, consider that capability of ICT usage is reduced in teachers because they are not completely educated or confident to use ICT in teaching process.

To enhance the quality of education integration of ICT in teaching learning process is most important factor. Studies by Shaukat states that grasps ICT for teachers that enables the teachers to create some trickery abilities and learning to comprehend different dimensions of Integration. A study by Moe, 2005 in reference to ministry of education that integration of ICT in learning makes student capable to understand his abilities for technology. Integration of ICT in student's learning prepared student to make understanding about difficult concepts (Allen and Seaman, 2006). Integration of child's game catches the attention of children that give them motivation toward learning. Children learn many things in a very short period. Understanding about ICT advance and improve our way of living by Look, 2005.

Study in an international journal of computing and ICT research 2008, shows that the utilization of ICT has beneficial outcomes in teaching learning process of different educational subjects. Also inspired students to enhance their learning. Study by Barak, 2006 shows that the integration of ICT in learning process enhance in depth learning and allows students to perform better towards their changes and need and give them dependable connect to different information sources. Fullan, 2016 focuses on student's accomplishment on developing cooperative studies significance in schools. Frost and Sullivan, 2006 studied that teachers training in computer skill enhance the student's learning. Studies by Peralta, and Costa, 2007 recommend that teacher with more involvement with Computers have more significant trust in their capacity to utilize them effectively. A few researches show that lack of access resources, including home resources, is a complicated fence that discourages lecturers from integration new advancements into lecture rooms, (Bingimlas, 2009). The impact of young kids' utilization of technology on their improvement remains debated by Geist, 2012; ploughman and McPake, 2012; Yelland, 2011. Integration of ICT within the early years Education academic programs square measure vital to upgrade the general excellence of young youngsters Lim, 2012; Yelland, 2011. ICT may reutilize for a large scope of functions in young children's' learning. Baytak, 2011 states, most students feel their learning square measure increased by integration technology into their learning. During this approach, academic technologies, clearly laptop and therefore the net advances, have essentially attired to be unbelievable within the classroom. As technology makes learning to boot fascinating, charming and in-built, youngsters nowadays love learning by doing, finding, and relating.

Youngsters may assure to collaborate completely within the laptop section within the

educational institution school room by Maynard, 2010; Zevenbergen, 2007; Lim, 2012. Discoveries from Hatzigianni, & Margetts, 2012 support that laptop use will upgrade laptop confidence, significantly for teenagers with access to Computers throughout schooling in first year. once utilizing Computers, youngsters feel that they're repetition adults, and that they feel happy with themselves once they will show their achievements and find appreciative and compliments for one thing 'the adults will do' by Moore, 2005. Also, grown-ups will facilitate assure age and developmentally appropriate use of ICT by kids. Computers and innovative toys vital for kids' realizing once utilized accurately in the light of the fact that they empower self-inspiration, take into thought student input, the difficulties, and may lead looking for regarding the globe by Johnson & Dame Agatha Mary Clarissa Christie (2009). The NAEYC supports the mixing of Computers in early education lecture rooms. Huang and Liaw (2005), Korte and Husing (2007), and Becta (2008) conducted studies in Europe that revealed a disparity in lecturers' perceptions of the effectiveness of ICT in making teaching learning interesting and schoolroom inventive teaching and learning places. There have been lecturers who believed that the use of ICT had a positive impact on students and their own learning. This helped in modifying learning and strengthening the link between classroom learning and learning outside of school. However, there is evidence in these studies that some lecturers believe that the benefits of ICT were not evident in students' performance.

### **RESEARCH OBJECTIVES**

1. To assess teacher's perception on effectiveness of ICT integration to support teaching and learning at ECE level.
2. To explore perception of teachers regarding ICT facilities provided at ECE level.
3. To find out the skills of teachers for use of ICT at ECE level.
4. To analyze perception of teachers regarding ICT integration in teaching at ECE level.

### **RESEARCH QUESTIONS**

1. What are the teacher's perceptions on effectiveness of ICT integration to support teaching and learning at ECE?
2. What are the perceptions of teachers regarding ICT facilities provided at ECE level?
3. What are the skills of teachers for use of ICT at ECE level?
4. What is the teacher's perception of ICT integration in teaching at ECE level?

### **RESEARCH METHODOLOGY**

In this study, quantitative method was used to collect the data. Questionnaire developed by the researcher. All sections of questionnaire precisely address the objectives regarding effectiveness of ICT integration, facilities of ICT, skills of teachers for ICT and ICT integration in teaching in public and private schools at



primary level. The questionnaire was distributed among teachers for data collection. Due to the limited amount of time and resources the research was delimited to public and private primary school teachers located in tehsil Rawalpindi. The population of this study based on teachers who were working in public and private school in tehsil Rawalpindi, province of Punjab. There were 160 public and 92 private schools in tehsil Rawalpindi. There were 4,160 public schools' teachers and 837 private schools' teachers. In which there were 320 public schools' teachers and 368 private school teachers at primary level. The result of this study was carried out from 160 teachers of public and private schools at primary level. The questionnaire equally distributed in both public (80) and private (80) primary school teachers. The questionnaire distributed specifically primary teachers in public and private schools. There is preference to targeted respondent for this research have teaching background regardless of gender, age, teaching experience, academic and professional qualification. A questionnaire developed with 34 items was used as the tool to analyze the teacher's perception regarding integration of ICT at primary level in both public and private sector in province Punjab. Total 160 questionnaire distributed to teachers of public and private sector in which questions were asked and answered by respondents, the answer based on 5-likert scales ranged from 5= strongly agree, 4= agree, 3= neutral, 2= disagree and 1= strongly disagree. The questionnaire based on five sections. First section is about demographic background of respondent that is consist of age, gender, institution name, academic qualification, professional qualification, experience and job status. Other four parts of questionnaire consist of teacher's perception on ICT integration. Part one comes with 6 statements on effectiveness of ICT, Part two comes with 8 statements on facilities of ICT, Part three comes with 8 statements on skills of teachers for ICT, and Part four comes with 12 statements on ICT integration. The tool was adopted and changed from the original questionnaire Ghavifekr (2015) that is suitable for this study. Some of the statements are designed and changed by researcher accordingly the need of chosen topic. The researcher takes research permission from Executive officer of Education which issued a permit for data and they also provided list of all schools in Rawalpindi. The permission was important because it provide easy entry in the school and easy access to the teacher without any restriction. The questionnaires were distributed in schools randomly by the researcher for data collection. The data was collected in the duration of one and half month. Data collected through questionnaires.

#### **DATA ANALYSIS AND RESULTS**

Data was analysed by using Statistical Package for Social Sciences (SPSS). In this study the researcher analysed by using mean and independent sample t-test. The result of the study was presented in tables.

**Table 1: Means course of integration of ICT in early childhood education (Public)**

Variable	Mean	Remarks
Effective use of ICT	2.6	Neutral
Available facilities of ICT	2.6	Neutral
Skills of ICT for teacher	2.7	Neutral
Integration of ICT in teaching	2.8	Neutral
Total	2.6	Neutral

Table 1 Shows Means of variables of Effective use of ICT (2.6), Available facilities ICT (2.6), Skills of ICT for teacher (2.7), Integration of ICT in teaching (2.8) in public sector. It is concluded that the Mean of ICT falls in category “2.6”.

**Table 2: Means course of integration of ICT in early childhood education (Private)**

Variable	Mean	Remarks
Effective use of ICT	3.6	Agree
Available ICT facilities	3.5	Agree
Skills of ICT for teacher	3.6	Agree
Integration of ICT in teaching	3.8	Agree
Total	3.6	Agree

Table 2 Shows Means of variables of Effective use of ICT (3.6), Available facilities ICT (3.5), Skills of ICT for teacher (3.6), Integration of ICT in teaching (3.8) in private sector. It is concluded that the means of ICT falls in category “3.6”

**Table 3: Comparison of Public and Private Sector Regarding ICT Integration**

Subscales of ICT	Public		Private		T	Sig	df
	M	Std	M	Std			
Effective use of ICT	16.08	4.169	22.12	4.139	9.207	.000	158
Available ICT facilities	21.48	4.867	28.09	4.675	8.756	.000	158
Skills of ICT for teacher	22.22	5.208	29.31	5.658	8.245	.000	158
Integration of ICT in teaching	33.72	7.594	45.77	6.098	11.075	.000	158

Table 3 shows that there is significant difference in public and private sector teachers at primary level regarding effective use of ICT, Available facilities of ICT, skills of ICT for teachers and integration of ICT in teaching. The t values of above-mentioned variables are (9.207, 8.756, 8.245 and 11.075) and respectively so it is concluded that significance difference is found related to sub scales of integration of ICT in early childhood education among male and female primary school teachers.

## DISCUSSION

This study was concluded that public sector teachers have less opportunities, skills and facilities for ICT integration in teaching learning process. The result shows that teachers have less interest in utilization of ICT in the classroom. The study shows that most of the public sectors teachers think that integration of ICT is less useful in teaching and learning process.

The result also shows that private teachers have more opportunities, skills and facilities regarding ICT integration in early childhood education. Public schools' teachers have less opportunities and facilities for ICT integration in the classroom. The result also shows that private teachers have positive attitude toward integration of ICT in teaching learning process. They are given in service training for ICT integration in classroom. In public sector school's teacher, they have lack of knowledge and skills regarding use of ICT in teaching and learning. Public sector school's teacher has less interest in ICT integration in teaching and learning. The study examines that the there are no ICT facilities in public schools. Private schools' teachers agree that the utilization of ICT in teaching is useful and beneficial for students' learning.

The purpose of this study was to find out the teacher's perception regarding access and use of ICT in early education schools in comparison to public and private. In this study the integration of the ICT facilities at private and public schools explained that most of the private schools have different ICT devices (desktop, laptop, tablet, multimedia and printer at their schools) in their schools. Also, private schools have ICT facilities, their teachers have skills for ICT. While in the opposite government schools have no ICT facilities for their students' use and different devices including laptop, tablet, multimedia and printer were not available in almost all government schools. In public schools' teachers are not much educated or less professional skills regarding use of ICT in classroom. There is significant difference in public and private sector teachers at primary level regarding effective use of ICT, available facilities of ICT, skills of ICT for teachers and integration of ICT in teaching. This indicates that private schools have more facilities of ICT available at schools for their students' use in comparison with government schools, so they are in better position to teach, train, advancement the learning and making the limit of the students. In the study by Qureshi (2013) supports the result of this study, it says "the private school system, is giving quality

training from previous 34 years by utilizing ICTs for giving interesting, creative, and well-adjusted learning environment for the students in order to create higher order thinking". Finding regarding to difficulties that are faced during integration of ICT in early education (schools of Rwanda) discover four most important complications. These include (1) absence of enough required skills for ICT integration in early education process; (2) absence of satisfactory technology devices; (3) absence of enough infrastructure and (4) absence of motivation that related to teacher financial payment.

These results were observed in agreement with other recent studies to such that of Kayisire and Wei (2016) who recognized external and internal barriers to ICT integration. By Kopcha, 2012 studies stated that there is lack of technology resources in teaching used by teachers. Studies of Gray, Thomas, & Lewis, 2010 studied that there are 3000 teachers to check the availability and use of technology in the elementary and secondary government schools of the US and studies found that there are 50% teachers who utilized technology for teaching. Basically, technology used for only office work, attendance record, and for results. Kopcha, 2012 stated that the reason behind this gap are those barriers that are faced by teachers in ICT integration in early education. Teachers perception towards ICT and their perception of ICT effectiveness plays a vital part in their creative utilization of ICT in their teaching and evaluation exercises in the classrooms. The first objective of this study perception of teacher on effectiveness of ICT integration is related to the studies of Schwasbky, 2013 stated that the positive attitude of teachers towards implementation of ICT is the important reason of success in early education. The second objective of this study teacher's perception regarding ICT facilities reflected from the findings of the (Jackson, D. B. Edwards & C. Berger, 2003) that utilization of ICT enhances students' higher order skills for example, investigation, intellectual, critical thinking and basic leadership capacities, basic creative reasoning and figuring out how to learn. This study also shows that utilizing computers positively affects student's success in comparison with traditional methods by Sterling & Gray, 1991 in Means, Barbra (ED), 2004.

The third objective of this study skills of teachers for ICT integration related to the studies of (Greenleaf, 1994) stated that lack of ICT facilities changes into absence of abilities in the utilization of ICT equipment and programming which cause due to absence of utilizing ICT devices among students. Research by Pelgrum, 2001 founded absence of teachers' technological abilities is a main obstruction to their acknowledgment and implementation of ICT. The last objective of this study teacher's perception regarding ICT integration in teaching relate with some other studies. There is significant change occur in utilization of ICT rapidly due to advancement of internet. Studies by Hague & Payton, 2013 stated that the world is involved with full of technologies and children lives fill with use of technologies. Many past studies work

on all level's teachers' perception regarding ICT integration in schools, college and universities (Karasavvidis, 2009; Al-Senaidi, Lin, & Poirot, 2009). Though, there are some researches on early education teachers' perception towards integration of ICT at early education classrooms by Gialamas & Nikolopoulou, 2010. Studies of Kayisire, and Wei (2016); Igbo and Imo (2017) are specified that there is positive attitude of teachers regarding integration of ICT and positive relationship between their point of view and impression of computer qualities. The studies of Koehler et al., 2014 & Burkhardt et al., 2003 proved that the skills of ICT integration counted in latest skills of 21st century.

### RECOMMENDATIONS

The government may participate in arrangement of ICT resources to encourage integration of ICT in government funded schools.

The government may progress in its efforts of ICT integration programs in schools develop positive view among teachers on the advantages of ICT in learning and teaching.

Teacher training institutions may encourage effective utilization of ICT in preparing teachers to improve access, learning and organization in delivery of ICT integration in schools.

The government may improve the educational programs on ICT trainings to assure teachers are enough prepared in the usage of ICT resources at the time of teacher's induction

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