CHAPTER-2

REVIEW OF RELATED LITERATURE

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2.0.0 INTRODUCTION

Research is defined as a structured inquiry to discover answers to a problem (Burns, 1994). Review of related studies is an essential part of any research. It gives valuable insights and manifests the direction to move in research. It is one of the major steps in research study. It allows the researcher to familiarize himself/herself with current knowledge in the field or area in which he/she is going to conduct his/her research.

Best and Kahn (1998) points out that review of related literature is "A brief summary of previous research and writing of recognized experts provide the researchers familiar with what is already known and with what is still unknown and untested. Since effective research must be based on past knowledge this step helps to eliminate the duplication of what has been done already and provides useful hypothesis and helpful suggestions for significant investigation". The review of related literature paves a clear way for the investigator to present in a proper way to solve the distinguished problem. It helps the investigator to form proper objective and hypothesis for the study. It avoids unnecessary duplicity of work. "Since effective research must be based on past knowledge, this step helps to eliminate the duplication of what was been done already and provides useful hypothesis and helpful suggestions for significant and investigation (Best and Kahn).

2.1.0 IMPORTANCE OF THE REVIEW OF LITERATURE

The purpose of this review of qualitative research is to provide an overview of studies pertaining to teacher perceptions, beliefs and dispositions when it comes to technology integration. These articles investigated the potential predictors and/or potential barriers to technology integration into the classroom. The central research questions that are addressed throughout this literature review include the following: -

(1) What are the perceived barriers that cause teachers not to integrate technology consistently into their teaching practices?

(2) Are the teacher perceptions related to their gender, years of teaching experience, grade level or subject level?

2.2.0 REVIEW OF LITERATURE

ICT integration and utilization in educational institutions and carefully selected that are considered important. They are classified under two heads and presented in the following:

(i) Foreign Studies

(ii) Indian Studies

2.2.1 Foreign Studies

Cuban (2001) explains that in each instance of technology adoption, after the initial excitement was over, the technologies ended up having a similar result on classroom instruction. The face of education stayed the same. Old teaching practices changed slightly to fit the latest technology of the time, but for the most part, changed very little. Cuban argues that history is repeating itself again with the personal computer in the classroom.

According to Cuban (2001), one of the reasons technologies have historically failed to improve or reform our education system is that teachers were not involved in the planning and implementation phase of technology integration. Instead, he argues, policy makers have driven the purchasing and use of technologies in the classroom. They do this mainly in an effort to make education more efficient and productive. However, teachers are not part of the planning or implementation of the technologies, so in each instance, all of these technologies have suffered similar fates. Specifically, they are not being used in the classroom, and if they are, they are being used for tasks that could be completed without the use of a computer.

Sasseville (2004) conducted a study on integrating Information and Communication Technology (ICT) in classroom: A comparative discourse analysis. The research investigated this phenomenon through a comparative discourse analysis of primary and secondary school teachers and promoters of ICT integration. The results show that promoters tend to view ICT as a way of transforming education whereas teachers see it only as a means to an end. The former's vision is borrowed from a prospective current of

thought, a vision of social changes based on technological advances; the latter considers only the needs of the students and the practical ways to respond to them. The research shows that teachers are not opposed to ICT integration; they're interested in effective ways to implement learning. The organizational context into which ICT is integrated is also a major impediment when it comes to changing the teacher's practice.

Roznina (2006) found that male teachers reported significantly higher levels of confidence in using ICT with students for teaching and learning and used ICT more frequently to enhance and transform the curriculum. Further, there was no significant relationship between years of teaching experiences and teacher confidence but experience did affect the level of ICT use that teacher preferred their students to demonstrate. With teachers who had least experience preferred their students to use ICT more to both enhance and transform the curriculum.

Jimoyiannisa (2007) conducted a study on Examining teachers" beliefs about ICT in education: Implications of a teacher preparation programme. Peloponnese: University of Peloponnese. The survey presented in this article examines current teachers" beliefs and attitudes towards ICT in education. A total of 1165 primary and secondary education teachers participated in the study, immediately following a training programme on basic ICT skills. Our results show that the majority of the teachers in the sample have positive attitudes towards the training programme they attended, the general role that ICT can play in education and the integration of ICT in the educational process. Our findings have also revealed some parameters that interfere negatively, thus making many teachers cautious of or sceptical about ICT integration in educational practice. Multivariate analysis identified three groups of teachers that exhibited a consistent approach: a group of teachers having positive attitudes towards the items of the research, a second group stated negatively, and a third one with neutral beliefs about ICT in education. Moreover, our analysis extracted significant information on the profile of the teachers within each of the three groups. We have found that personal factors (subject matter, teaching experience,

and gender) are strongly associated with the beliefs and perceptions teachers held about ICT in education.

Olteanu (2007) studied students' perception concerning the implementation of ICT in the classroom. Results found out that it was easy to understand the content through ICT, and increased the fastness and attractiveness of the teaching modalities which combined the ICT with traditional methods. According to some teachers it was also a good opportunity to discuss about the use of ICT.

Buabeng (2012) conducted a study on Factors influencing teachers" adoption and integration of Information and Communication Technology (ICT) into teaching: A review of the literature. Global investment in ICT to improve teaching and learning in schools have been initiated by many governments. Despite all these investments on ICT infrastructure, equipment and professional development to improve education in many countries, ICT adoption and integration in teaching and learning have been limited. This research reviewed personal, institutional and technological factors that encourage teachers" use of computer technology in teaching and learning processes. Also, teacher-level, school-level and system-level factors that prevent teachers from ICT use were reviewed. These barriers included lack of teacher ICT skills; lack of teacher confidence; lack of pedagogical teacher training; lack of suitable educational software; limited access to ICT; rigid structure of traditional education systems; and restrictive curricula.

Mwila and Ogula (2014) conducted a study on effects of Information and Communication Technology on students" academic achievement in Moshi municipality, Tanzania. This study examined the effects of Information and Communication Technology on student academic achievement in Moshi Municipality, Tanzania. It employed an ex-post facto research design. One hundred and twenty respondents were sampled from 10 secondary schools. Document analysis schedule, questionnaires and observation schedule were also used as research instruments. Data were analysed using mean scores; standard deviation, frequencies and percentages. Hypotheses testing were

carried out using t-test independent and ANAOVA. The study found out that (i) students in secondary school where ICT is integrated had a higher mean score for the passing success in art subjects in National Form Four Examinations, (ii) teachers and students had positive attitude towards integration of ICT in teaching and learning of art subjects, Additionally testing of hypothesis reviewed that (i) There is a significant relationship between integration of ICT in teaching and learning of arts subjects and students' academic achievement, (ii) There is a significant relationship between teacher's gender and attitudes towards integration of ICT in teaching and learning of arts subjects, (iii) There is a significant relationship between a teacher's age group and attitudes towards integration of ICT in teaching and learning of arts subjects. This study concluded that the integration of ICT in education has a significant potential to enhance teaching and learning in secondary schools provided it is carefully planned for and adequate technical and material support is given to teachers and students.

2.2.2 Indian Studies

Uniyal and Pandey (2008) conducted a survey on teachers of Uttarakhand and observed that teachers who were above 40 years of age and teachers with 20 years of experience and above showed a favourable attitude towards ICT but used less in the classroom. The study also reported that there was no difference between the attitude of male and female teachers towards ICT, but difference was found out between rural and urban teachers. The study also found out that though there was availability of computers teachers did not use.

Manisha (2012) studied the attitude of secondary school teachers towards using of new technologies in Northern Goa with a sample of 150 secondary school teachers working in 45 schools and found out that there was no difference in attitude by gender or experience but significant difference was noticed with respect to age, computer ownership and computer experience of the respondents.

Kapoor, G. & Husain, I. (2015) in a research entitled Digital era- challenges and opportunities for teachers 'revealed that teachers from government and private school does not have any difference in the perception towards the strength of digital resources in effective teaching learning process. They reported that digital resources are beneficial in increases classroom interaction among students, facilitating delivery of the concept, evaluation of progress of the student, diagnosing students learning need, tailoring the learning experience to meet individual students' pace, supporting student's collaboration and fosters independent practice of specific skills. They suggested that the focus should not be limited to educating teachers only to use ICT resources, instead, they must provide the teachers with the skills and expertise to use ICT required to transact curriculum in order to better suited for the students of 21st century.

Senthil Kumar (2015) conducted a study on effectiveness of Computer Aided Learning (CAL) in teaching of Commerce concepts. This study focused on teaching of computer aided learning packages for the students up to XII Standard and found that the students were very much interested to learn all the subjects through computer aided learning.

Kumar and Basavaraja (2016) investigated the computer access and use: understanding the expectations of Indian rural students. Purpose: This study aims to understand the expectations of rural students with respect to their computer access and use. It also made an attempt to learn the expectations of rural students from their schools and local government in providing the information and communication technology (ICT) infrastructure. Design/methodology/approach: Interview schedules were used to collect the necessary data from the rural students. The interview schedules consisted of various questions that were designed to elicit the expectations of rural students in terms of their usage of computers. A total of 300 interview schedules were collected from the students, and data were analysed using Statistical Package for the Social Sciences (Windows 19.0 version) to test the formulated hypothesis. Findings: This study clearly showed that 72 per cent of female and 63.33 per cent of male students have not used a computer. Most of the students opined that lack of support from

Literature review gave the research good insight into the current research work done on the subject matter and how certain areas need to be covered from education sector perspective.