EXPLORING TEACHERS' MOTIVATION AND AWARENESS TOWARDS THE USE OF ICTs AT SECONDARY SCHOOL LEVEL

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Abstract

The study was aimed to investigate teachers' motivationand awareness about the usage of Information and Communication Technologies (ICTs) at secondary school level. The study was qualitative in nature;six public sector secondary schools (three male and three female) of district Gujranwala were selectedconvenientlyas a sample of the study. From each sampled school, two teachers were chosen for interview. Data were collected through semi-structured interview guide from 12 teachers (6 male and 6 female) of secondary school. Collected data were categorized into different themes. After the collection of data, thematic analysis was done; further, themes were generated from the analyzed data. The results revealed that all of the respondents were motivated towards ICTs and hadawareness about ICTs technologies like computer, multimedia, internet, audio-videos, and multimedia projectors, butowing tonon-availability and lack of proficiency, they were unable to use them properly.Therefore, the study recommends for need-based in-service training programmes for teachers forincorporation of ICTs in their classroom teaching and learning.

Key Words: Teachers, ICTs, Motivation, awareness.

Introduction

This is an era of information and communication technology. It is imperative to implement ICT in Education Sector, to have adaptability with the current age. The quality of teaching and learning quality can be enhanced by using ICT in classroom instruction. Teachers'performance can be improved by incorporating ICT during teaching. Similarly, students learning skills can be improved by using ICT. Sharp (2009) stated that the role of ICT cannot be ignored all over the world in quality performance.

Zhang and Aikman (2007) saidthat ICT has becomecrucial part of most organizations and industries as well. Therefore, it is imperative to incorporate technology in classrooms for improvement of teachers and students' performance.

For the achievement of educational goals and objectives in the digital age; the schools are in dire need to guarantee that their teachers have sufficient competency to incorporate technology into the school curriculum. In view of that, research studies

must be conducted at the pre-service teachers training stage by putting emphasis on pre-service teachers' willingness for technology incorporation of technologyalongside the existing practices of teacher education in the use of ICTs. Moreover, technical and pedagogical experiences should be ensured for the usefulness of their upcoming teaching as well.Many studies have been conducted forexploringthe relationships between pre-/in-service teachers' attitudes and actual use of computer technologies (Drossel et al., 2017; Ozer, 2018).

Steiner and Mendelovitch (2016) conducted a study on science teachers and they concluded that in promotion of students' concentration and active learning, the science teachers found ICT integration useful in their teaching; furthermore, it meets all the students' needs as these tools can be adjusted according to the pace, ability level and needs of the learners at the same time.Moreover, they found that ICT is being used by these teachers as an aide to improve their teaching as well.

Kreutz and Rhodin (2015) conducted a study on ICT impact on learners, they found that computers are helpful in making learning exciting by increasing learners'motivation, inquisitiveness, developing and personalized learning. The use of ICT in learning isdirectlylinked with the use of computers and internet. That is the reason that computers and internet are considered important parts in the progress of the use of ICT (Budiman, 2012).

According to Rahim (2011) computers areconsidered not only electronic devices that are helpful for teachers for the preparation of teaching materials using Microsoft Office (Word, Excel and PowerPoint), but also useful in communication as well. Consequently, ICT has been proved to be a learning medium;

therefore, it is being widely used for improvingthe efficiency and effectiveness in the learning process.

Nawaz and Kundi (2011) say that disempowerment is one of the problems for under developed countries; however, ICTs have the capacity to get rid of the impediments to the global knowledge by empowering the developing states. Teachers' motivation and trainings play asignificant role in the incorporation of ICT in education (Keramati et al., 2011). The sense of isolation from rest of the world is the greatest problem for under developed countries; however, this loneliness can be reduced by adopting new technologies (Tinio, 2002).

According to Albirini (2006) the success of technology use is highly associated with attitude of the teachers.Balanskat et al. (2006) state that teachers' co-operation and commitment can be promoted through ICT; furthermore, it is highly important for teachers' efficiency as well. It is also helpful in reducing their stress and work load by appropriate planning. ICT can be helpful to change their traditional pedagogical thinking. ICT also enhances relationship between students and teachers as well as helpful in implementation of new student centered teaching strategies.

Solomon (1998) stated thatwith the help of computer the students are facilitated with innovative ideas in a dynamic way.Hence, for the improvement of teaching and learning, there is dire need that the schools, colleges and the universitieshave to take up information and communication technologies (Nawaz &Kundi, 2011).

The current study was conducted to explore the teachers' motivation and awareness towards information and communication technologies,in view of its great importance and less availability of

research in Pakistan. The main purpose was to investigate the teachers' motivation towards ICTs at secondary school level in district Gujranwala.

Research objectives

The objectives of the study were to:

1. Investigate the teachers' motivation towards Information and Communication Technologies (ICTs) at secondary school level.
2. Investigate the teachers' awareness about the Usage of Information and Communication Technologies (ICTs) at secondary school level.

Research questions

On the basis of the above stated objectives of this study following research questions have been developed to find out their answers by collecting data from sampled schools and teachers.

1. How much secondary school teachers are motivated for the use of Information and Communication Technologies (ICTs) in their classrooms for the purpose of teaching and learning?
2. How much secondary school teachers are aware about the usage of Information and Communication Technologies (ICTs) in their classrooms for the purpose of teaching and learning?

Research Methodology

The nature of the study was qualitative; all public sector secondary school teachers of district Gujranwala (Central Punjab, Pakistan)were selected as population.Five secondary schools were taken as sample conveniently. Ten secondary school teachers were selected as sample conveniently;two teachers from each school.Semi-structured interviews guide was used for the purpose of data gathering as an instrument. The instrument was piloted on three secondary school teachers other than

sampled schools for the purpose of its reliability and validity. After collecting data through interviews, it was transcribed and divided into themes. After developing themes, they were changed into categories and codes.

Data were collected through semi-structured interviews with 10 secondary school teachers. First of all, the researchers took consent from the concerned head teachers to conduct interview and to record the interview from teachers. They were told about the length and way of conducting the interview. The researchers gave options tothe participants where they feel comfortable could manage for an interview, either at home or in the school. The participants were told the purpose of interview and they were also told that the study was being conducted for research purpose only andit was beneficial for teachers, students, and educational stakeholders. It was told to them that all the information would be kept confidential and used for research purpose only.

Data analysis

After data collection, themes and codes were generated by analyzing data. After the analysis and interpretation of data, it was presented in discussion. Ten Secondary School teachers including 5 males and 5 females were interviewed about awareness of ICTs.The data were analyzed in threesteps.

At first, the interviews were analyzed for recurrent themes; each recorded interview was listened many times, reflected upon relevant themes in the interviews, and noted down interpretation. After that, the teachers' responses in relation to the recurrent themes were compared to each other. Third, comparisons were also made between the teachers' responses and the previous studies. At last, these comparisons were made with the purpose of enabling the

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researchersto understand the real essenceof the interview questions. The following themes were discovered in the teachers' responses.

Types of ICTs

There are different meanings and views about ICT technology.Eight out of ten respondents were more or less aware of the ICTs. One of the female interviewee said, "She is aware of ICT technology like computer, internet, multimedia, PowerPoint".Another male reported thathe was aware of projectors and mobile phones.Another respondent said that "I am aware of Dump terminals and video conferencing also".

ICT as a pedagogical tool

The use of ICT can help to promote constructivist innovation in teaching and learning process. It also helps the students "to learn how to learn". Students are able to seek solutions to real world problems. The ICT based technological and pedagogical framework helps students to engage themselves in the development of curiosity and take initiative for learning, leading to critical and analytical thinking.

Lacking ICT facility in schools

Two out of ten respondents said that it is not possible for us to adopt ICT as a pedagogical tool, due to non-availability in the school. The common use of ICT in Secondary level is still not found. This use is not only for those students who selected computer as a subject but also for every student who has got admission in school.Another male respondent said,"I adopt traditional method of teaching at this level because multimedia is not available at this level". There is no training of teachers regarding implementation of ICT as aninstructive tool".

Adopt demonstration and simulation

Seven out of ten respondents were not comfortable with the skill of demonstration and simulation of ICTs. The rest three reported that they possess desired skill, for example, one of the respondents reported as,"I adopt ICTs as a direct method, demonstration, simulation and for interactive teaching. Lecture becomes more interesting through ICTs.

Adopt power point software as a pedagogical tool

Five out of ten respondents replied that they can use power point presentation. For example, one of the interviewee said,"I use computer as a pedagogical tool. So, sometimes I use PowerPoint presentation".Hence, teachers responding put emphasis on using ICTs for the support of open ended problem oriented task that require teacher facilitation and enables different learning ways.

Ways of enhancing motivation

Fifty percent teachers showed their motivation towards the use of ICTs in teaching and learning but non availability of ICTs is the hurdle in their use of ICTs. Fifty percent teachers showed no motivation toward the use of ICTs because they were not aware about the use of ICTs in teaching learning process.

Students become more active participants and focused

Most of the respondents expressed thatnow students seem more active in using ICTs and if teachers motivate them, they can further polish their ICTs skills. One of the interviewees reported, "Use of ICT in classroom makes our teaching method more easy and effective, students become active participant. In this way we feel well confident". Same response was received from other five teachers. Another participant replied,"The magical use of ICT makes the students more focused, attentive and ICT tools may attract students toward better way".

Teaching becomes effective

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Three out of ten respondents said,"ICT can make teaching process more interesting and (effective) enjoyable by using audios and videos".Two of the female respondents said,"It makes my teaching practice more effective. It brings all five senses in use while teaching. I can convey my knowledge in better way and improves my teaching skills and strategies, the use of ICT may have tremendous effect on teaching practice. It may do the teaching task easy. It may be helpful for teaches to accomplish task in short time and students may attain a lot of information".

Enhances the students learning

The target of ICTs is to enhance students learning. Teachers were asked on this them. Fifty percent replied positively and fifty percent were against the use of ICTs in classroom. They argued that teacher becomes passive in class which results passiveness in students. They further supported their point of view by saying that teachers deliver more information in short time and majority of students is not able to digest accumulated information. Consequently, students cannot learn properly.

Insufficient competency/skills of teachers in the use of ICTs

Five of the respondents said, "We have little bit but not sufficient skills to sue ICTs for educational purpose. Proper use of ICT requires training to implement it. Only computer teacher and students of computer science make use of computer lab to some extent. Therefore, there exists a gap between ICTs and classroom activities". Others showed their total ignorance about the use of ICTs in the classroom.

Helpful in communication skills

One of the respondents said, "It is an innovative way for better teaching to have better feedback from the students. It makes teaching practice more effective".

Another respondent said,"It helps to enhance communication skills of the teachers to teach especially at secondary level. Teachers may feel comfortable to plan the lessons more effectively. It integrates the whole situation of teaching and learning process". No one contradicted the theme strongly. Every teacher was in favour of ICTs in the effectiveness of communication skill of teacher.

Findings

On the basis of above data analyses following findings have been derived:

1. Secondary school teachers were not well trained in the use of ICTs in their teaching process.
2. Teachers were aware about the usage of ICTs as pedagogical skill.
3. Teachers were motivated for the use of ICTs in teaching learning process but cannot use due to two basic reasons: First, non-availability of ICTs facility in secondary schools and second, teachers are not so trained as to use ICTs in their classrooms for the purpose of teaching and learning.
4. There was no difference in the opinions of male and female teachers on the use of ICTs in their teaching learning process. Both male and female respondents had same opinion on the use and awareness of ICTs in teaching learning process.

Discussion

All respondents were aware about ICTs like computer, multimedia, internet, audio-videos, and multimedia projectors; but they were unable to use these technologies as a pedagogical tool due to non-availability of ICT tools and incompetency of ICTs skill in the public sector schools. Finger et al. (2007) stated that the term ICT is usually used to refer to computer-based and computer related devices.Furthermore, most

of the teachers had motivation regarding incorporation of ICTs in their teaching because it could make the teaching and learning process effective.Teachers' suggestion focused primarily ICTs training for staff, and how to use ICTs as a pedagogical tool. It was vital for the teachers in schools to encourage and guide the students to use ICTs Tools of websites (Sharp, 2009). The majority of the teachers claimed that they had no training; lack of ICTs resources, infrastructure facilities and staff training in schools was the most common reason that impedes the integration of ICTs tools in teaching learning process.

The computers, available in the schools were just for the students of computer science, so this was a serious problem in public sector schools at secondary level. Another frequent complaint of teachers was the lack of opportunities for training in ICTsskills. Training in ICTs skills was necessary for implementation of ICTs in the teaching. As more teachers became competent in the use of basic ICTs tools, there would be more ICTs integrated activities in the classroom. Therefore, computer skills training should be provided on an ongoing basis as new software is introduced. Roblyer (2006) found that lack of confidence, lack of competency and lack of success to resources are the main barriers for successful incorporation of ICTs in teaching learning process. The study investigated teachers' motivation regarding ICTs usage in Pakistani schools and covered areas of interest.

The teachers have strong beliefs about the value of ICTs as a learning tool and relevant to social life. Severalteachersare computer phobic; therefore, they avoid using computer during their classroom teaching (Sherman& Howard, 2012).ICTs are not only helpful for the implementation of new student centered

teaching strategies; it also strengthens relationship between teachers and students (Balanskat et al., 2006). Pelgrum(1993) stated that school teachers' positive attitude about implementation of computers in schools is highly crucial.

Conclusion

At present, information and communication technology has affected all walks of human life. Information and communication technology has influenced teacher education a lot; now a days, ICTs, specifically computer has become an important part of our life. Currently, teaching is becoming one of the most challenging professions in Pakistan. The teachers have to accept the demands of this digital age; therefore, to tackle this challenge it is necessary to change their old ideas and teaching methodology by the incorporation of modern technology like computers during their teaching. Therefore, the current study is an effort to explore the teachers' motivation regarding ICTs at secondary level and their knowledge about the usage of ICTs in teaching learning process.

Based on data analysis and previous discussion it is concluded that teachers are motivated about the ICTs and are aware about the importance of ICTs in teaching learning process. Furthermore, fifty percent teachers are unable to use ICTs in their teaching because of non-availability of ICTs in schools;others cannot use it because of having no training and skill in the use of ICTs in teaching learning process.

The study concludes that Pakistani schools are equipped with computer labs. The interviews uncovered that teachers ICTs skills are not sufficient. Although they are aware of ICTstoolsyet cannot carry it out in classroom activities. They cannot use this modern technology in their pedagogy. The feedback by teachers showed a positive and

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encouraging dimension on the acceptance of the idea to use ICTs in teaching and they are motivated towards incorporation of ICTs at secondary school level.

Recommendations

Based on the findings and discussion following recommendations are suggested.

1. Government should ensure the provision of ICTs facilities in public sector secondary schools of district Gujranwala.
2. IT laboratories in schools should be monitored to ensure their functional situation.
3. There is need of planning for implementation of ICTs in schools.
4. ICT based courses should be integrated in teachers' training institutions.

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