Teacher Effectiveness and Information and Communication Technologies (ICT)

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Abstract

The usage of Information and communication technologies (ICT) in the field of education helps in enhancing teaching-learning process in classroom. Information and communication technologies (ICT) enhances the teacher effectiveness among the teachers and makes the teaching-learning process more student-centric than the traditional methods of teaching. With the rapidgrowth of digital information and media in the 21st century, the part and role of Information and communication technologies (ICT) in teaching-learning processhas become more and more integrally importantfor the teachers. In this paper, a literature review survey with regards to usage of Information and communication technologies (ICT) inthe field of education has been provided for teacher effectiveness.

Keywords: Teacher Effectiveness, Information and communication technologies (ICT)

INTRODUCTION

Information and communication technologies (ICT) are one of the important and basic building material of the present modern society (Daniels, 2002). People usually have wrong pre-conceived notions and misconceptions thatInformation and communication technologies (ICT) are only related to computers. The usage of the term computer was changed and replaced by the termInformation technology commonly abbreviated as "IT" at the late 1980s(Pelgrum and Law, 2003). It meant to be not justa technology for computations but the technology which can retrieve information and store it. In and around the year 1992 when electronic mail i.e. e-mail was made available to everyonethen the Information Technology was then followed by the introduction of Information and communication technologies (ICT) (Pelgrum, W.J., Law, N., 2003). Teacher effectiveness is the teacher's capability and competence to teach effectively thereby being effective in the areas of preparation and planning for teaching, classroom management, knowledge of subject matter, teacher characteristics and interpersonal relations (Kulsum, 2011). Therefore, ICT usage by the teachers is important for their overall teacher effectiveness. The education field has been positively affected in terms of research and in teaching-learning process by Information and communication technologies (ICT) (Yusuf, 2005). Many researches have proved that it has benefitted the quality of the education system. (Al-Ansari, 2006).

REVIEW OF RELATED LITERATURE OF FAMILIARITY OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)AND TEACHER EFFECTIVENESS

For enhancement of a teacher's capabilities in the classroom, ICT plays an important role.(Parraton and Creed, 2000).Technology usage has more effectiveness in school curricula, school's ability/capability to bring change, training of teachers and assessment of students (Rosechella et al., 2000). Hakkarainen et al. (2001) revealed that most of the teachers have access to computer at school or at home but only a less percentage of teachers have adequately acquired ICT technical skills. By ICT usage, teachers are able altercate and bring modifications in the presentation with regards to the needs of the learners (Jes and Co, 2001).Thequality in education is associated with effective teachers who havehigh personal contact with pupils and ICT usage in education thereby

making a student-centric learning environment (Oliver, 2002).The ingredients for achieving successin teaching should be understood as it includesteachers using environment and contentusing technology (Marshall, 2002). For the development of teachers professionally, it is important to aid them in learningabout how to use new technologies to impart instructionsas well as perform activities which are meaningful in the classroom environment (Ringstaff and Kelly, 2002). A teacher's role can never be replaced or substituted. The technology is a means of enhancement of mode of the teacher's teaching effectiveness (Cunnighum, 2003). New lecturer teachersshould be inducted for the development of skills needed in ICT usage and also there should be development ofanoptimistic attitude with regards tothe use of ICT for teaching (Yusuf and Onasanya, 2004). Neva (2007) studied teacher effectiveness with respect to utilization of media and attitude towards ICT application amongst secondary school teachers. It was found that the higher effective teachers portrayed better attitudes towards ICT than their less effective teacher counterparts of private schools and government schools. To teach Physics concepts at senior secondary level, teaching based on computer-assisted learning is the best mode of teaching (Kannan, 2007). Dawson (2008) concluded that the ICT usage helped and aided teachers in increasing their self-efficacy. Teacher effectiveness has most strong association with the technology tools available for data collection for instructional planning purposes (Ownes and Fralinger, 2008). Sahin and Turan (2009) studied the effects and uses of educational technology in learning and teaching. They revealed that the effect of technology in the classroom is highly productive depending on factors like teacher's background knowledge of equipment of teaching used by them, theircapability for using the technology, also the strategies, techniques and methods of using them. Besoluk et al. (2010) found that teachers having teaching experience of more than fifteen years are not very familiarin using computers. Science and technology Student-teachers pointed that their work assignments require the usage of educational technology. Sanchez et al. (2012) revealed that teachers have highly positive attitude towards ICT but the ICT usage in classrooms is very rare. There was no significant difference in the ICT usage in classrooms after training. Masino (2013) studied the perceptions about usage of technology inteacher lecturers. Majority of respondents pointed out thatif ICTis used appropriately then it can enhance teaching-learning process.Dwivedi (2016) revealed that teachers familiar with ICT are more effective than their unfamiliar counterparts. She also revealed that there is a significant effect of familiarity in ICT on teacher effectiveness of teachers.Zhelezovskaia (2016) revealed that the teacher respondents had positive attitude towards ICT in majority. ICT provided teachers fast information access and students actively participate in classroom with interest in studying. Stella (2017) revealed that student-teachers had positive attitude towards usage of ICT in teaching pedagogy. There was no significant influence of gender on the attitude of the student-teachers. Suniya and Lhungdim (2017) revealed that there is a significant difference in the attitude of female and male secondary school teachers towards their attitude regarding ICT. Male teachers had better attitude towards ICT than the female Teachers. There was no significant difference in the attitude towards ICT with respect to race i.e. tribal and non-tribal teachers and also with respect to type of school.Dhara (2018) revealed that majority of teachers at tertiary level possess moderate level of knowledge about ICT.Sharma (2019) revealed thatfor the preparation of lectures,majority of teachers use facilities of ICT offered by their department. Teachers in majority were in the opinion that ICT promotes application oriented research. The teachers feel that ICT is helpful for them for better management of classroom activities and is helpful in development of their teachingmotivation. Sukhanand (2020) revealed that for effective teaching-learning process, the most preferred tools of ICT were videos, messaging application 'whatsapp' and mobile applications.

CONCLUSION OF THE STUDY

The literature based survey of the present study reveals thatthe Information and communication technologies (ICT) which is based on teaching and learning through technology is more effective method of teaching as compared to traditional classroommode of teaching. It increases the effectiveness of the teachers in teaching-learning process. This is true since, by using Information and communication technologies (ICT)based equipment and tools,promotion of a more receptive and activeteaching-learning environment in the classroom takes place.Itpeaksthe interest of the students in learning and also peaks the teacher's zest to teach more effectively. Therefore, Information and

communication technologies (ICT) is effective for teachers as well as students. So, in conclusion, the very first stage of implementation of Information and communication technologies (ICT) at schools should be effective so that teachers are able to make the best use of itfor effective teaching-learning process. There should be proper time to time maintenance of Information and communication technologies (ICT) tools with necessary upgradation with changes taking place in the technology. The Information and communication technologies (ICT) integration in the schools result in a huge success and bearsfruitful benefits for students to get practical learning experience and for teachers for their overall development of teacher effectiveness thereby meeting the cut throat demands of being a teacher in the 21st century.

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