

# A Study To Diagnose The Secondary School Teachers' Beliefs About The Use Technological Innovations In Teaching Learning Process

Dr. Shafqat Ali<sup>1</sup>, Dr. Tariq Mahmood<sup>2</sup>, Muhammad Saleem<sup>3</sup>, Dr. Safia Rehmat Ullah<sup>4</sup>, Abid Ali<sup>5</sup>

<sup>1</sup>Associate Professor of Education, Minhaj University, Lahore, [drshafqat.edu@mul.edu.pk](mailto:drshafqat.edu@mul.edu.pk)

<sup>2</sup>Headmaster, Govt. High School Chicherwali, Sialkot.

<sup>3</sup>Govt High School No 1. Pasrur, Sialkot.

<sup>4</sup>Government Girls High School Sham Ki Bhattian, Lahore.

<sup>5</sup>Govt. Higher Secondary School No. 1 Ghakhar, Gujranwala.

Corresponding Author: [tariq\\_903@hotmail.com](mailto:tariq_903@hotmail.com)

## ABSTRACT

Utilization of mechanical advancements plays essential part in growing experience. The fundamental subject of the article was to examine the instructors' opinions about mechanical advancements while educating the learners. Objective was to recognize educators' opinions towards use of technological innovations. To address this objective an examination question was created i.e. Is there any main contrast of educators' opinions towards technological innovations. A five point likert scale instrument was created and used to gather information. 400 instructors educating to secondary classes were chosen for taking responses. The gathered information was dissected by utilizing SPSS programming. For inferential insights t-test was utilized to address the planned question. Information showed that there was significant contrast among various teachers on their convictions to utilize mechanical advancements. On the foundations of conclusions it was suggested that educational program developers ought to add material for the significance and utilization of mechanical advancements to upgrade belief level of instructors towards the utilization of innovation.

## Introduction

In the cutting edge period, the students developed up in a world limited by innovation, energetic and prone to utilize it. In the cutting edge time innovation has gotten a surge of developments varying backgrounds and in schooling as well. It is the need of time to outfit youthful age with innovative apparatuses (Derbel, 2017). The quick changes in worldwide level require educators, central participants during the time spent educating and learning, to secure and foster

proficient abilities equipped for answering the changing attributes of learning. Instructors need to master present day and refreshed abilities to further develop their showing style and information with the necessities of the world (Koh, Chai and Lim, 2017).

The accessible innovative limit of educators to coordinate the material this age necessities is beginning to be investigated (Lai and Hong, 2015). For sure, there is a critical relationship between teachers' innovation

abilities and showing system in a reasonable and experienced technique. There is a desperate need to prepare the educators in regards to choice and viable usage of mechanical developments during their educating (Almerich, Orellana, Suárez-Rodríguez and Díaz-García, 2016).

At present, it is required for educators to show their field understanding in an innovation empowered enlightening way, and every instructor can rapidly and effectively foster qualified showing materials in their field involving mechanical developments in the homeroom for better learning. Many examinations portrays that as the utilization of PCs turns out to be more significant in instructive settings, more investigations have been led and recognized the variables that impact educators' utilization of PCs during homerooms and for setting themselves up. These incorporate instructors' PC information and abilities, deficient preparation, educator inspiration, responsibility and absence of time (Chigona, Chigona, 2014).

Numerous scientists tracked down that nervousness, showing experience, admittance to innovation, specialized mastery, and cutting-edge programming and equipment support are extremely critical elements in use of mechanical devices for educators. Numerous instructors were tracked down restless about the utilization of mechanical advancement because of absence of information and abilities (Salehi and Salehi, 2012).

Griffin, McGaw and Care (2012), discovered a portion of the vital variables for effective innovation reception and combination in schooling system. Improvements in the arising areas of science, innovation, economy and society play changed the parts of educators and understudies in schools and instructive practice. It was inferred that the endurance of school system has straightforwardly relationship with

transformation of such imaginative mechanical apparatuses by educators and understudies. The one of center targets of instruction is portrayed as arrangement of essential abilities to understudies as per the quickly changing climate and worldwide necessities. The world is change because of quick headway of innovation. It is the time of innovation. There is dire need to lay out schooling system as indicated by the requirements of time. Understudies need to acquire new refreshed information and abilities (Jacobson-Lundeberg, 2016).

Data innovation gives apparatuses to producing, collecting, stockpiling, and consuming information, and for teaming up and coordinating in schooling system. Schooling foundations can use different mechanical devices in guidance learning technique to work on the information on understudies. Educators have abilities to choose and execute such apparatuses really (Kozma, 2003).

An exploration as of late portrayed that educator's expansions in esteem the personality of ICT in the homeroom, in any case ceaselessly face hindrances in through these advancements in the educating methodology. For the most part educators have absence of refreshed information and abilities with respect to execution of mechanical advancement during homeroom. Educators have various feelings of dread connected with utilization of mechanical devices because of absence of ability in I.T.

In the cutting edge timeframe, individuals habitually use ICT in various fields of life to work with themselves. They entertain themselves with various exchanges to get data and complete their assignments. Headway of innovation should be visible in each field of life. Data innovation has upset. The world has turned into a worldwide town (Kozma, 2008). Many examinations directed in various societies of nations show that in spite of the rising openness

of ICT contraptions in organizations, it isn't reasonable that teachers are using ICT as expected because of absence of tension, dread, absence of refreshed information and abilities with respect to mechanical development in training (NESTA, 2012).

Arthy and Gowrishankar (2015) likewise reason that innovation can be utilized as a decent showing help, like radio and TV, not exclusively to make the learning technique persuading yet in addition ensure better ability to learn. As of late, many examinations have zeroed in on the impacts of involving PCs in the educating and growing experience. It is likewise presumed that educators' discernments, mentalities and evaluation of suspicions are the advantages of involving ICT in schooling. Starting educator preparing was accounted for to assist them with coordinating the utilization of innovation into instructing and learning. Hence, educators are considered as key entertainers in the dynamic consolidation of innovation into educating (Teo, 2011).

Much examination has been finished with respect to significance of educator's disposition towards use of ICT and developments in schooling. Concentrates on show that educators have a hopeful demeanor to utilize ICT. It is viewed as a fitting element for educators to have a helpful disposition related the use of ICT, as individuals very early on have generally more openness and involvement with instructing with ICT. Thusly, the significance of ICT combination in helping and educators' capacity to involve innovation overall is the consequence of the development of another age, the "Organization Age", and that signifies "the people who computerized locals", for example youngsters brought into the world somewhere in the range of 1982 and 1994 who grew up drenched in innovation (Oblinger and Oblinger, 2005).

Educators' convictions and perspectives are key to the successful application and utilization of ICT in establishments. In this manner, educators' methodologies and feelings have all the earmarks of being exceptionally critical for creations in establishments, especially those that affiliation educating and innovation. Sugar, it have observed that educators' mentalities or convictions are a significant human element that essentially affects PC acknowledgment and innovation application in the class (Oye et al. 2014).

Bullock (2004) likewise calls attention to that educator disposition is a basic component in innovation execution and application. An instructor having uplifting perspective with respect to mechanical development has better execution of creative apparatuses when contrasted with the educator having negative mentality towards instructive advancements.

Educators' disposition to involve PC in showing educational experience is a main element for future utilization of PCs in the homeroom. Research directed on understudy instructors found a critical connection among mentalities and utilization in regards to PCs. It is accounted for that generally teachers have confidence in that act of utilizing ICT emphatically affects perspectives concerning PCs. Consequently, perspectives in regards to PCs can show a basic person in the gathering and genuine use of PCs. Hence, the viable use of innovation in the preparation methodology for the most part relies upon educators' mentalities headed to ICT mechanical assemblies (Kumar and Kumar, 2003).

Current mechanical variances influence the schooling and helps required for people in the data culture to viably advantage from innovation and succeed in a mechanical setting. To hold up with such varieties, having instructors acquire the fundamental abilities to use innovation is one of the critical subjects of schooling. Close to with the development of innovation, varieties in the

school system additionally strength changes in information and educating rehearses. Especially in auxiliary and advanced education establishments, the use of innovation is developing, and the use of innovation by educators is turning out to be almost necessary. It is expected that explores connected with the use of innovation in schooling system is many times led inside the structure of educators' abilities, perspectives or mentalities. After an inside and out happy examination audit of worldwide investigations connected with instructors' innovation use, it was observed that the greatest bantered subjects were data innovation use and educators' declaration through the elements affecting their act of these advances.

In the cutting edge time of innovation, the most concentrated on issues are educators' utilization of data innovation for enlightening commitments, innovation skill, responsive qualities, convictions and perspectives about the utilization of innovation. Besides, review related to instructor power, various factors, for example, school climate, work fulfillment, student independence, understudies' accomplishment and showing style of educators are depicted exceptionally critical (Baradaran, 2016).

Collected data through instrument was figured out the instructors' beliefs towards utilizing mechanical advancements and the results are given in the tables below:

**Table 1** t-test between SST and SSE teachers regarding technological utilization beliefs

Teacher	N	M	S. D.	t-value	P
SST	317	3.927	.497	-3.109	.002
SSE	106	4.092	.388		

Table 1 shows the distinctions between educators designation wise in regards to their opinion towards utilization of mechanical advancements. Results shows that SSE instructors have better

beliefs towards utilization of mechanical developments when contrasted with the SST educators. P value narrated that the difference is significant.

**Table 2** t-test between male and female teachers regarding technological utilization beliefs

Teachers	N	M	S.D.	t-value	P
Male	219	4.024	.385	-4.563	.000
Female	204	4.213	.466		

Gender-wise contrast in regards to their opinion towards utilization of mechanical advancements

is displayed. Investigation exhibits that a huge difference between male and female educators. Furthermore, investigation shows that female

instructors have better belief towards utilization of mechanical advancements when contrasted with the male educators.

**Table 3** t-test between urban and rural teachers regarding technological utilization beliefs

Locality	N	M.	S.D.	t-value	P
Urban	200	4.177	.380	5.396	.000
Rural	223	3.883	.683		

Table 3 shows the distinctions between educators locality wise in regards to their opinion towards utilization of mechanical developments. Investigation exhibit that there was significant

uniqueness among urban instructors and rural educators. Moreover, investigation shows that urban instructors have better belief towards utilization of mechanical advancements when contrasted with the rural educators.

**Table 4** ANOVA among different qualifications of teachers regarding technological utilization beliefs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.416	2	9.208	26.377	.000
Within Groups	146.621	420	.349		
Total	165.038	422			

A One-way ANOVA was generated among teachers with different qualifications to know their belief towards utilization of mechanical developments. Instructors were divided into three classes; B.Ed., M.Ed. also, M.A.

The table 4 showed ANOVA results among various categories of educators to know their beliefs in regards to utilization of mechanical advancements. Above table showed that there was huge difference among the different expert capability instructors on their beliefs to utilize mechanical advancements.

**Table 5** ANOVA among different qualifications of teachers regarding technological utilization beliefs

#### Multiple Comparison

Qualifications	N	M.	S. D.	M.D	Sig.
1 B.Ed.	66	3.604	.740	-.449*	.000

	M.Ed.	308	4.053	.573		
2	B.Ed.	66	3.604	.740		
	M.A Education	49	4.389	.464	-.784*	.000
3	M.A Education	49	4.389	.464		
	M.Ed.	308	4.053	.573	-.335*	.001

Post hoc test was executed for extra comprehension of instructors' beliefs of educators. Generally educators' beliefs with respect to utilization of mechanical advancements showed that instructors having B.Ed. was altogether not the same as instructors having M.Ed. qualification having p .000 and furthermore altogether having M.A qualification having p.000. Educators with M.Ed. qualification likewise varies altogether from instructors having M.A qualification having p .001.

On the bases of results it was suggested that that newly recruited educators i.e. SSE have better beliefs viewing mechanical developments when contrasted with SST, therefore, organizations like QAED ought to organize courses to boost old educators to improve their IT abilities for better showing educational experience.

## References

1. Almerich, G., Orellana, N., Suárez-Rodríguez, J., & Díaz-García, I. (2016). Teachers' information and communication technology competences: A structural approach. *Computers & Education*, 100, 110-125.
2. Arthy R., Gowrishankar R (2015) Technology mediated training to develop listing skills. *Golden research thoughts*, 5, (3), p.1-5.
3. Baradaran, A. (2016). The relationship between teaching styles and autonomy among Iranian female EFL teachers, teaching at advanced levels. *English Language Teaching*, 9(3), 223-234. <http://dx.doi.org/10.5539/elt.v9n3p223>
4. Bullock D (2004) Moving from theory to practice: an examination of the factors that preservice teachers encounter as they attempt to gain experience teaching with technology during field placement experiences. *Journal of Technology and Teacher Education*, 12(2), 211–237.
5. Chigona, A. & Chigona, W. (2014). Capability approach on pedagogical use of ICT in schools. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 6(1), 209-224. doi:<http://hdl.handle.net/10394/3617>
6. Derbel, F. (2017). Technology-capable teachers transitioning to technology-challenged schools. *Electronic Journal of e-Learning*, 15(3), 269-280.
7. Griffin, P., McGaw, B. & Care, E. (2012). The changing role of education and schools. In P. Griffin, B. McGaw & E. Care (Eds.), *Assessment and teaching of 21st century skills* (pp. 1-16). Heidelberg: Springer. <https://www.springer.com/gp/book/9789400723238>
8. Jacobson-Lundeberg, V. (2016). Pedagogical implementation of 21st

- century skills. *Educational Leadership and Administration: Teaching and Program Development*, 27, 81-99. [https://www.icpel.org/uploads/1/5/6/2/15622000/capea\\_volume\\_27\\_march\\_2016.pdf](https://www.icpel.org/uploads/1/5/6/2/15622000/capea_volume_27_march_2016.pdf) [also at <https://files.eric.ed.gov/fulltext/EJ1094407.pdf>]
9. Koh, J. H. L., Chai, C. S., & Lim, W. Y. (2017). Teacher professional development for TPACK-21CL: Effects on teacher ICT integration and student outcomes. *Journal of Educational Computing Research*, 55(2), 172- 196.
  10. Kozma R (2008) Technology, innovation, and educational change: A global perspective. Eugene,: International Society for Technology in Education (ISTE).
  11. Kumar, P. and Kumar, A. (2003). Effect of a web-based project on pre-service and in-service teachers' attitude toward computers and their technology skills. *Journal of Computing in Teacher Education*, 19(3), 87-91
  12. Lai, K. W., & Hong, K. S. (2015). Technology use and learning characteristics of students in higher education: Do generational differences exist? *British Journal of Educational Technology*, 46(4), 725-738.
  13. NESTA (2012) Decoding learning: The proof, promise and potential of digital education. [WWW document]. URL: [http:// www.nesta.org.uk](http://www.nesta.org.uk).
  14. Oblinger D. G and Oblinger, J. L. (2005) Educating the net generation. Washington, DC: EDUCAUSE. OECD, 2005. Annual Report OECD 2005, Paris.
  15. Oye, N. D., Lahad, N. A., & Rahim, N. (2014). The history of UTAUT model and its impact on ICT acceptance and usage by academicians. *Education and Information Technologies* 19(1): 251-270.
  16. Salehi, H. & Salehi, Z. (2012). Integration of ICT in language teaching: Challenges and barriers. *Proceedings of the 3rd International Conference on e-Education, e-Business, e-Management and e-Learning* (pp.215-219). Hong Kong: IPEDR.
  17. Teo, T. (2011) Factors influencing teachers' intention to use technology: Model development and test. *Computers & Education*, 57 (4), 2432-2440