

# Study of awareness of school teachers teaching in English medium at different boards towards using Information Communication Technology in Teaching Learning Process in Mumbai Region

Rahidabano Firoz-Ahamad Patel<sup>1</sup>, Dr. Karuna Sinha<sup>2</sup>

<sup>1</sup>Head of Mathematics Department, Singapore International School, Mumbai, Maharashtra, India

<sup>2</sup>Professor H. J. College, Gujrat Research Society of Education, Mumbai, Maharashtra, India

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## ABSTRACT

Now a days, in every field, Information Communication Technology (ICT) has been Integrated extensively and hence in education field too. Teacher plays a primary role in the delivery of education. Hence, it is extremely important that teacher uses ICT in teaching learning process for which the teacher must be aware of relevant ICT knowledge and competencies. This study aims to examine the awareness of teachers teaching in English medium schools at different boards towards using Information Communication Technology (ICT) in Teaching Learning Process (TLP) with regards to the number of years' experience of the teachers in Mumbai region. In this study, the tool made by researcher has been use to collect primary data from the school teachers teaching in English medium schools in Mumbai region at different boards. A sample of 500 school teachers teaching grade 1 to 12 national and International boards were collected using random sampling technique. Data were analyzed using inferential and descriptive statistics. The study found out that there is a significant difference between the awareness of teachers of the use of ICT in TLP by the number of years of teaching experience.

**Keywords:** Awareness, School teacher, Information Communication Technology (ICT) and Teaching Learning Process (TLP)

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## INTRODUCTION

**“If we teach today as we taught yesterday, we rob our children of tomorrow.” – John Dewey**

Being a teacher today is clearly different from what it was even half a decade ago. To improve the quality of education, integration of Information Communication Technology (ICT) in Teaching Learning Process (TLP) is extremely important. Technology has introduce and available in almost all the schools. The teacher plays a crucial role in education system. Therefore, in order to align education with the future of technology, globally, it is a real challenge to teachers to gain ICT knowledge and apply it in enriching Teaching Learning Process. Teacher must be aware of different available ICT tools which could be used at the four different stages of Teaching Learning Process such as planning, Implementation (actual teaching in the classroom), various assessments and providing feedback to the students for the better teaching and learning experiences. As per National education policy (2020), one of the fundamental principle is extensive use of technology in teaching and learning in various subjectsto conduct virtual classes, better student support, enrolment, attendance etc. Government has already taken many steps to develop and support technology tools for better participation and learning outcomes such as the use of technology platforms SWAYAM/DIKSHA online training for teachers (Ministry of Human Resources Development, MHRD). Government has set up of an autonomous body - National Educational Technology Forum (NETF) to provide a platform for free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration and so on, both for School and higher education (NEP 2020). Awareness and implementation of use ICT in TLP will increase the efficiency of the teacher. It will help them to transform the relevant skills before they scaled up. Students in 21st century are well versed in many areas of ICT such as using different apps, digital platforms and continuous use of mobile, hence, Integration of ICT will make TLP more engaging and interactive. Teacher's awareness and use of mobiles appropriately in education field will also benefit learners in education instead of just using it for entertainment purpose.

The **aim** of this study to assess the awareness of teachers teaching in English medium schools at different boards towards using Information Communication Technology (ICT) in Teaching Learning Process (TLP) with regards to the years of teaching experience of the teachers in Mumbai region.

## LITERATURE REVIEW

Integration of ICT in teaching learning process make TLP more relevant and help to clear abstract concepts. Hence, awareness of appropriate ICT knowledge is extremely important for teacher. 85% secondary teachers in Punjab province have the opinion that traditional teaching aids should be replaced with the new ICT tools to improve the teaching learning process (Muhammad Qasim Ali1, Noshaba Nargis, Rehana Yasmeen & Zafar Iqbal 2015). Many studies reveals that there are various factors involved in the awareness of ICT tools such as age, gender of the teacher (Dr. Pramod Kumar & Madhumalathi, April 2016), teachers attitude towards ICT, demographic profiles, their perceptions on the usefulness and on the ease-of-use of ICT (K. M. Cassim & S. D. Eyono Obono 2011), available ICT infrastructure, support from the school, trainings available, time, teaching subject (Hussein M. Yaghi (2016) lack of effective training, lack of modern methods of evaluation, less competencies and motivation on part of teachers in use of ICT (Manpreet Kaur 2019), frequency of personal computer use and computer ownership (John A. Ross, Anne Hogaboam-Gray, and Lynne Hannay 2016). According to the study of Ratan Chavhan & Dr. Vijaykumar Exambi (2016), the computer trained teacher educators were more aware and used more ICT resources for classroom teaching. According to Bozdogan, Derya; Özen & Rasit (2014) lack of knowledge and skills, negatively influence ICT self-efficacy.

### Objective and Hypothesis

**Objective:** To compare the awareness of school teachers towards the use of Information Communication Technology (ICT) in Teaching Learning Process (TLP) with respect to their years of teaching experience.

**Hypothesis:** There is no significant difference between the awareness of school teachers of using Information Communication Technology (ICT) in Teaching Learning Process (TLP) and their years of teaching experience.

### Tools

In this study, the tool use was prepared by researcher. It was designed in 2 parts, Personal information of the teachers and questionnaire to measure the awareness of the teachers towards use of ICT in TLP. Part 2 consists 19 questions for which linkert scale has been used from scale 1 (Strongly Disagree) to 5 (Strongly Agree).

The reliability coefficient of the awareness tool, Cronbach's Alpha,  $\alpha = 0.961$ .  
Mean score of awareness is found to be 85.95 of SD 13.556.

Minimum score of awareness of ICT found to be 29 and maximum score is 100.

$$\text{Mean} - \text{SD} = 85.95 - 13.556 = 72.394$$

$$\text{Mean} + \text{SD} = 85.95 + 13.556 = 99.506$$

Hence,

a) **Mean** awareness < 72.394 is considered as **Low level of awareness of ICT**.

b)  $72.394 \leq \text{Mean awareness} < 99.506$  is considered as **Medium level of awareness of ICT** and

c) **Mean** awareness  $\geq 99.506$  is considered as **high level of awareness of ICT**.

### Figures and Tables

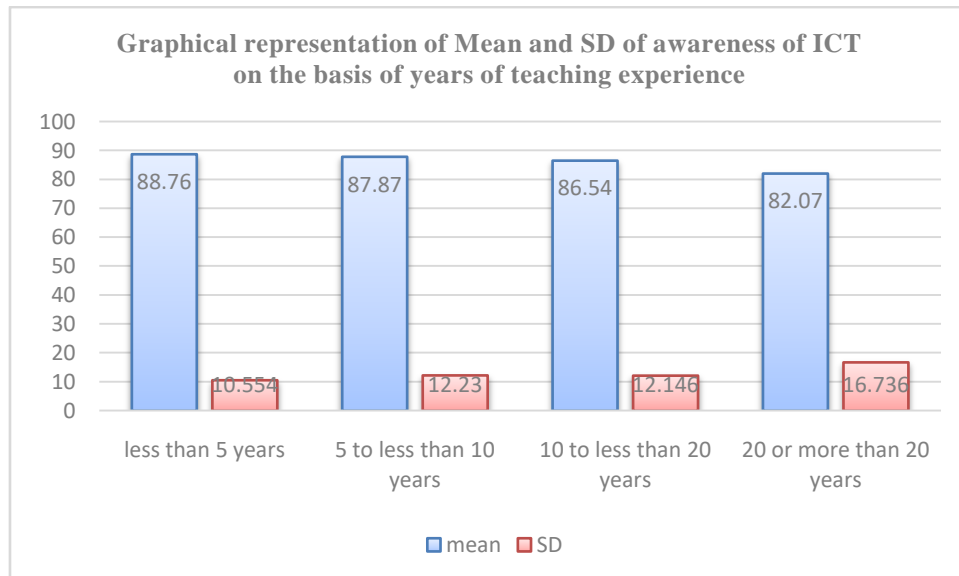
Table 1: Frequency of Awareness of ICT at different levels

	Frequency	Percent	Valid Percent	Cumulative Percent
Low level Awareness	73	14.6	14.6	14.6
Medium level Awareness	374	74.8	74.8	89.4
High level Awareness	53	10.6	10.6	100.0
Total	500	100.0	100.0	

Table 2: Descriptive statistics for the Score of awareness of ICT on the basis of years of teaching experience

Years of teaching experience	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
less than 5 years	71	88.76	10.554	1.253	86.26	91.26

5 to less than 10 years	113	87.87	12.230	1.151	85.59	90.15
10 to less than 20 years	181	86.54	12.146	.903	84.76	88.32
20 or more than 20 years	135	82.07	16.736	1.440	79.23	84.92
Total	500	85.95	13.556	.606	84.76	87.14



**Figure 1: Bar graph of mean and SD with respect to the years of teaching experience**

**Table 3 : One-way ANOVA for awareness of ICT between and within groups**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3067.613	3	1022.538	5.722	.001
Within Groups	88636.137	496	178.702		
Total	91703.750	499			

## FINDINGS

In order to assess whether there is a statistically significant difference between the teachers' awareness towards use of ICT in TLP by their number of years of teaching experience, we used a One-way ANOVA.

### From the table 1

14.6% of teachers have little awareness of use of ICT in the TLP.  
74.8% of teachers have moderated awareness of use of ICT in the TLP and  
10.6% teachers are highly aware of the use of ICT tools which could be used in Teaching Learning Process.

### From the table 2

The results in Table 2 shows that the mean awareness score of use of ICT in TLP of teachers having teaching experience,

Less than 5 years is 88.76 of SD 10.555,  
5 years to less than 10 years is 87.87 of SD 12.230,  
10 years to less than 20 years is 86.54 of SD 12.146 and  
20 and more than 20 years is 82.07 of SD 16.736,

This means as the number of teaching years (experiences) is more, the awareness of use of ICT tools used in teaching learning process is less. Fresher teachers have more aware of use of ICT in TLP.  
Also, as the number of years of experience is more the SD is more .For the teachers having more than 20 years teaching experience, SD is highest .

### From the bar graph, figure 1

Mean of awareness of ICT tools in TLP is a decreasing and SD is increasing as the number of years of teaching experience increases.

### From the table 3

Results in table 3 shows that,

The mean square between the groups (=1022.538) is much higher than the mean square within the groups (=178.702).

Also, F-value (=5.722) > p value (0.001)

Hence, do not accept the null hypothesis, so we accept the alternate hypothesis. Which means, **there is a significant difference between the awareness of school teachers towards using Information Communication Technology in Teaching Learning Process and their years of teaching experience.** This result, consistent with the findings of Hussein M. Yaghi (2016) who in their respective studies reported that teachers with more years of teaching have significantly lower level of confidence in using computer applications. This means fresher teachers learn latest technology and hence have more ICT knowledge. Teachers with more experience have growing age and might have lack of confidence to learn new technology, hence, have less knowledge of ICT tools.

## CONCLUSION

### Scope and Limitations of the study

The study is limited to the teachers teaching grade 1 to 12 of English medium schools in Mumbai region. It could be further explored to other demographic regions, vernacular medium teachers and different levels of teaching such as college or universities.

Results showed that majority (74.8%) teachers have medium level of awareness of ICT which could be used in TLP. Also, the study found no significant difference between the number of years of teaching experience and ICT awareness. According to the study of Muhammad Qasim Ali, Noshaba Nargis, Rehana Yasmeen and Zafar Iqbal (2015) government should replace the traditional teaching aids by new technologies for the better learning of students and these technological aids would play a convenient role in the teaching of secondary school teachers. Study also concluded that school education department should have to facilitate the teachers in the use of ICT and must have to support the secondary school teachers through the conduction of trainings in ICT.

The results of this research could be helpful in the following area,

- AS per National Education policy 2020, all B.Ed. programmes will include training of use of educational technology, however, at the same time government should also organize more awareness trainings of ICT for experienced teachers. There is a need of more customized workshops and conferences at regional, National and international level for the awareness of ICT tools as per the years of teaching experience teachers have.
- Educational software developers can keep awareness level ICT and number of teaching experience in mind while designing different software or tools.
- Curriculum development projects should integrate technology as an integral step in curriculum design.
- Teacher trainers to understand the need of the awareness of ICT with respect to the number of teaching years and design training strategies to enhance the learning outcomes of the teachers.
- Policy makers to understand and consider the factor, then number of teaching years affecting effectiveness and level of the awareness of ICT for making different policies.

## REFERENCES

- [1] "If We Teach Today as We Taught Yesterday, We Are Destroying the Future of Our Children." PlayShifu, <https://www.playshifu.com/blog/if-we-teach-today-as-we-taught-yesterday-we-rob-our-children-of-tomorrow>.
- [2] [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf)
- [3] Charles Buabeng. "Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature." 2012.
- [4] Dr. Pramod Kumar & Madhumalathi. "A study of ICT awareness need and usage among teacher educators: With focus on education" 2016.
- [5] K. M. Cassim, S. D. Eyono Obono. "On the Factors Affecting the Adoption of ICT for the Teaching of Word Problems," WCECS, vol I, Oct. 2011
- [6] Manpreet Kaur "Role of Teachers' Attitude and Beliefs regarding use of ICT in Indian Classrooms" 2019.
- [7] Ratan Chavhan, Dr. Vijaykumar Exambi. "A study on the ICT awareness among teacher educators of B.Ed. colleges of Hyderabad Karnataka region." Oct. 2016.

- [8] Muhammad Qasim Ali1 , Noshaba Nargis , Rehana Yasmeen & Zafar Iqbal . “ICT Use for Effective Teaching-Learning Process in Secondary Schools in Punjab Province.” Asian Journal of Social Sciences & Humanities Vol. 4(3), August 2015
- [9] Bozdogan, Derya; Özen & Rasit. “Use of ICT Technologies and Factors Affecting Pre-Service ELT Teachers' Perceived ICT Self-Efficacy,” TOJET, v13 n2 p186-196, Apr 2014
- [10] [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf)
- [11] Hussain Yaghi. “Subject Matter as a Factor in Educational Computing by Teachers in International Settings.” July, 2016.
- [12] John A. Ross, Anne Hogaboam-Gray, & Lynne Hannay. “Predictors of Teachers' Confidence in Their Ability to Implement Computer-Based Instruction.” July, 2016.
- [13] PDF.js Viewer,  
[https://unesdoc.unesco.org/in/documentViewer.xhtml?v=2.1.196&id=p%3A%3Ausmarcdef\\_0000231288&file=%2Fin%2Frest%2FannotationSVC%2FDownloadWatermarkedAttachment%2Fattach\\_import\\_dfd15983-4cbc-4521-9012-a3911f8b8e12%3F\\_%3D231288eng.pdf&locale=en&multi=true&ark=%2Fark%3A%2F48223%2Fp0000231288%2FPDF%2F231288eng.pdf#%5B%7B%22num%22%3A33%2C%22gen%22%3A0%7D%2C%7B%22name%22%3A%22XYZ%22%7D%2C%22%2C700%2Cnull%5D](https://unesdoc.unesco.org/in/documentViewer.xhtml?v=2.1.196&id=p%3A%3Ausmarcdef_0000231288&file=%2Fin%2Frest%2FannotationSVC%2FDownloadWatermarkedAttachment%2Fattach_import_dfd15983-4cbc-4521-9012-a3911f8b8e12%3F_%3D231288eng.pdf&locale=en&multi=true&ark=%2Fark%3A%2F48223%2Fp0000231288%2FPDF%2F231288eng.pdf#%5B%7B%22num%22%3A33%2C%22gen%22%3A0%7D%2C%7B%22name%22%3A%22XYZ%22%7D%2C%22%2C700%2Cnull%5D)