ICT KNOWLEDGE OF TAMIL LANGUAGE TEACHERS IN TEACHING

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ABSTRACT

Teaching has become one of the most challenging professions in our society, where modern technologies demand teachers to learn how to use them and where knowledge is developing quickly. In order to prepare their students for the challenging technological world and satisfy the demands of 21st century learning, teachers should update the technology and be aware of their students' demands. When teachers are computer savvy and know how to incorporate technology into the curriculum, information and communications technology (ICT) can significantly improve student learning. However, it is not the same as other teachers; language teachers other than English be afraid or anxious about using technology in classroom teaching due to machine language and other psychological factors. Hence, the present study attempts to explore teachers' use of ICT resource and their knowledge of the usage of technology in classroom teaching. A total of 600 school teachers participated from Erode district of Tamil nadu, India, were in this survey. The data was collected through a self-constructed objective- type questionnaire. The study showed that ICT knowledge of the Tamil language teachers towards their teaching is average, and there is no significant difference in gender as well as grade taught. However, the ICT knowledge is differed based on the type of school where they worked.

Keywords: *ICT knowledge, Digital platform, Language teacher, Secondary school teachers, and gender.*

INTRODUCTION

Teaching is a divine profession where teachers shape their country's culture, intellectualsociety, and destiny by teaching in the classroom. Traditionally, teachers were considered the only source of learning. But, in the digital era, learners are more advanced in assessing digital gadgets and gaining information from many digital mediaand sources. While students are advanced in learning, teachers who handle them must be well in information literacy skills. Moreover, teachers must be up to date in technology development for classroom instructional purposes.

Moreover, the fast development of computers and information technology has made everything more convenient and sophisticated. Several research studies reveal that the usage of digital devices has gradually increased in recent years. Nowadays, technologyis integrated with academics. The recent technology infusion changed classroom communication and methods of teaching (Suleiman 2013). According to the National Curriculum Framework (NCF), Information and communication technologies (ICT) integration into education "requires substantial study" (NCF 2005). Presently, Digital technologies are strongly rooted in teaching-learning and recommend the developmentof techno-skills among the teacher. Even though there is more emphasis on ICT resources, not all teachers generally use them. Moreover, in some sections, the teacherfelt difficulty in using technology. Thus, this paper explores the usage of ICT resourcesand the recent technology of language teachers in teaching.

NEED AND SIGNIFICANCE OF THE STUDY

Computer use in educational settings has evolved into a crucial component of education. Therefore, technology is one of the most important instruments in the educational community for transferring information to students (Spelman Khululwa1, 2018). According to UNESCO's ICT-Competency Standards for Teachers (ICT-CST), "Traditional educational processes no longer offer prospective teachers with all the required abilities to teach pupils to live economically in today's profession," according to UNESCO's ICT-Competency Standards for Teachers (ICT-CST).

However, the majority of educational institutions confront several obstacles to reaching high ICT proficiency; one of the most important requirements for removing these obstacles is to have enough ICT resources and infrastructure, which is almost certainly a costly investment. National Curriculum Framework stated, "Integration of Information and Communication Technologies (ICT) into schooling needs serious consideration" (NCF 2005) Machine or international languages are used to create the majority of digital gadgets and apps. For teachers of other than international languages, there is a gap between knowing machine language and international languages. Particularly, it differs from the Pattern of the majority of Indian languages. As a result, the instructor found it challenging to use technology. Therefore, this study is considered significant and needed to identify the ICT knowledge of Tamil language teachers.

THE CONCEPT OF TECHNOLOGY USAGE

Technology's expanding capabilities are making it possible to allow more meaningful connections and communication across generations, cultures, and distances (Logan Reis et al, 2021). People have greater opportunities to interact and collaborate with digital systems as their availability and prevalence grows (Musa Adekunle Ayanwale, 2022). These fundamental conditions are said to be composed of a number of skills. They comprise broad competencies (like general cognitive abilities), digital system usage competencies (like fundamental computing competencies), as well as personal characteristics like attitudes (Peiffer et al., 2020). The ability to utilise digital device effectively has become essential in various spheres of life, including work and school. 21st-century skills are those that are necessary for participation in education, employment, and daily living in contemporary civilizations. These knowledge and abilities are related to digital devices (such as computers, smartphones, and tablets), apps, and settings (OECD, 2016).

Carretero, Vuorikari, and Punie (2017) framed Developing digital competences base on competence areas in technology. They are Information and data literacy, Communication and collaboration, Digital content creation, Safety, and Problem-solving (Anna-Sophie Ulfert-Blank, 2022). It has been discovered that implementing these technologies by various organizations leads to increased productivity, improved communication and cooperation, engagement and creativity, and less waste (Attaran et al., 2019). However, obtaining such advantages requires more than merely "turning on" the technology (Elizabeth Marsh, 2021). To maintain academic activity, the majority of educational institutions have turned to online learning platforms. However, there are also doubts regarding how planned, designed, and successful e-learning is, especially for a developing country such as India, where technological challenges like device appropriateness and availability represent a significant problem (Muthuprasad et al 2020).

RESEARCH QUESTIONS

1. Does the Tamil language teacher have ICT knowledge?

2. What kind of ICT provision do language teachers have?

3. Is there any difference between gender, grade level, and type of management with respect to ICT knowledge?

THE OBJECTIVE OF THE STUDY

1. To find out ICT provisions and the level of ICT knowledge of Tamil language teachers in teaching with respect to a) Computer Courses attended, b) ComputerSkills c) ICT Provisions, d) Digital Platform usage, and e) Laptop Provision in teaching.

2. To find out the level of knowledge of ICT of Tamil language teachers in teachingwith respect to gender, grade level, and type of management.

3. To find out the significant difference in knowledge of ICT scores of Tamil language teachers with regards to gender, grade level, and type of management.

The hypothesis of the study

1. The level of ICT knowledge of Tamil language teachers with respect to a) Computer Courses attended, b) Computer Skills c) ICT Provisions d) Digital Platform usage and e)Laptop Provision in teaching is low

2. The level of ICT knowledge of Tamil language teachers with regard to the selected sub-samples gender, grade level, and type of management is low.

3. There is no significant difference in ICT knowledge of Tamil language teacherswith regard to gender, grade level, and type of management.

RESEARCH METHODS

Participants

The researcher applied a normative survey method to identify Tamil language teachers' ICT knowledge and usage. Teachers of Secondary and Higher secondary schools were chosen as the respondents for this study. A total of 600 teachers participated in the survey, with 250 (41.7%) teaching in the secondary grades and 350 (58.3%) in the higher secondary grades. These teachers were chosen from the Erode district of Tamil Nadu, India. 447 of them (74.5%) were men and 153 (25.5%) were women. The researcher employed a suitable random sampling method. They included 11 educators from private schools (1.8%), 72 teachers from aided schools (7.5%), and

517 teachers from government schools (86.5%).

Tools used in the study

The data was collected through a self-constructed objective-type questionnaire having 4 alternate choices to test the ICT knowledge of Tamil language teachers. The researcher constructed and established the validity and reliability to questionnaire through a pilot study. The validated questionnaire consists of 10 items in ICT knowledge questionnaire and demographical data. These items are used to find out theTamil language teachers' ICT knowledge.

ANALYSIS

1.   The level of ICT knowledge of Tamil language teachers with respect to a) Computer Courses attended, b) Computer Skills c) ICT Provisions, d) Digital Platform usage and e)Laptop Provision in teaching is low

Table 1: Showing the mean, SD, frequency, and percentage of ICT knowledge of Tamillanguage teachers

Variable - ICT Provisions		Frequency	Percent	Mean	SD
Computer Courses	Attended	448	74.7	8.53	3.422
	Not Attended	152	25.3	8.25	3.104
Computer Skills	Known	448	74.7	8.37	3.153
	Unknown	152	25.3	8.72	3.852
ICT Provisions	Available	462	77.0	8.53	3.496
	Not Available	138	23.0	8.23	2.774
Digital Platform usage	Often	237	39.5	8.37	3.432
	Sometimes	348	58.0	8.49	3.23
	Rarely	15	2.5	9.13	4.533
Laptop Provision	Yes	483	80.5	8.49	3.06
	No	117	19.5	8.34	4.335
Total Sample		600	100.0	8.46	3.344

A total of 600 Tamil language school teachers participated in this survey. The Computercourses attended teachers are 74.7% (448) and not attended teachers are only 25.3%(152). It shows that most teachers had attended at least a single computer course.74.7% (448) of teachers used computer skills for teaching. Only 25.3%(152) of teachersdo not have computer skills. In the case of ICT Provisions, 77% (462) teachers are available, and only 23%(138) teachers do not use this provision. But 80.5%(483) teachers have laptops for personal use or teaching, and 19.5% (117) do not have laptops. 39.5% of teachers often use the digital platform for teaching or learning, and 58% of teachers use the digital platform sometimes, 15% of teachers rarely use it.

Moreover, the calculated mean and standard deviation of ICT knowledge of Tamil language teachers are found to be 8 above and 3 above, respectively. The mean score lay in between (M±σ) value, i.e., 5 to 12; hence, the framed hypothesis is rejected, andit is concluded that the level of ICT knowledge of Tamil language teachers based on itsdimensions is average.

The above Mean and Standard deviation for ICT knowledge of Tamil language teachersare shown in figure 1. The above frequency and

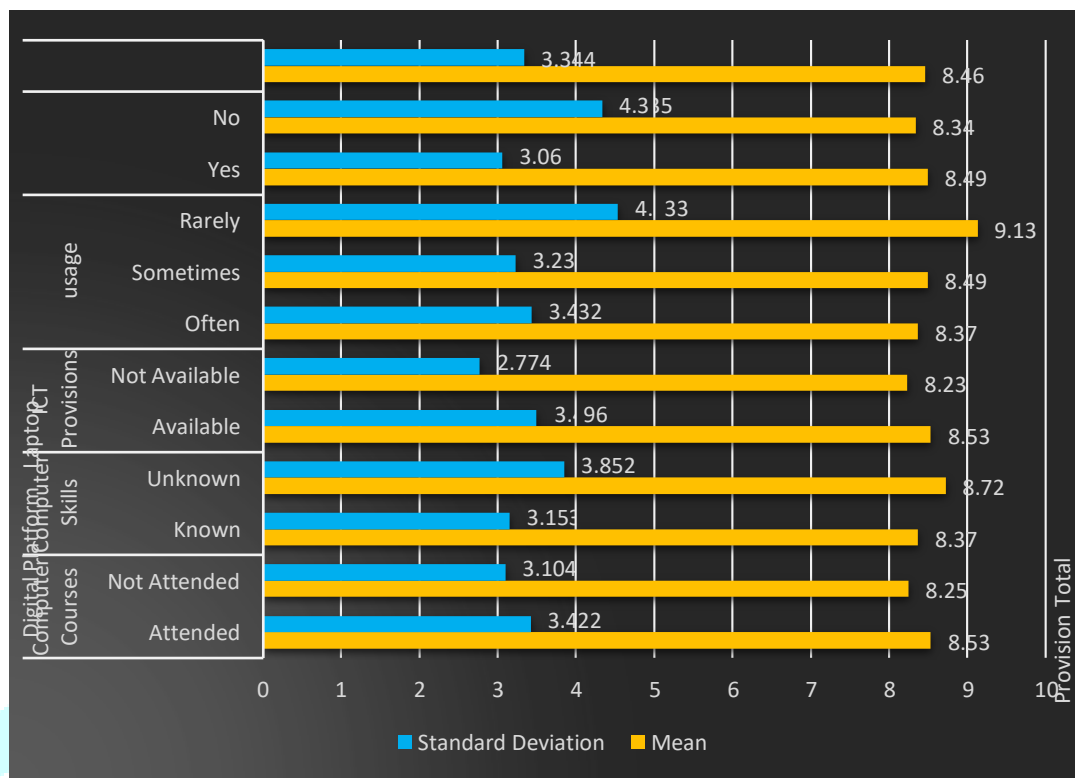percentage for ICT knowledge of Tamillanguage teachers are shown in figure 2.

Figure 1: Bar Diagram Showing the mean and SD for ICT knowledge of Tamil language teachers
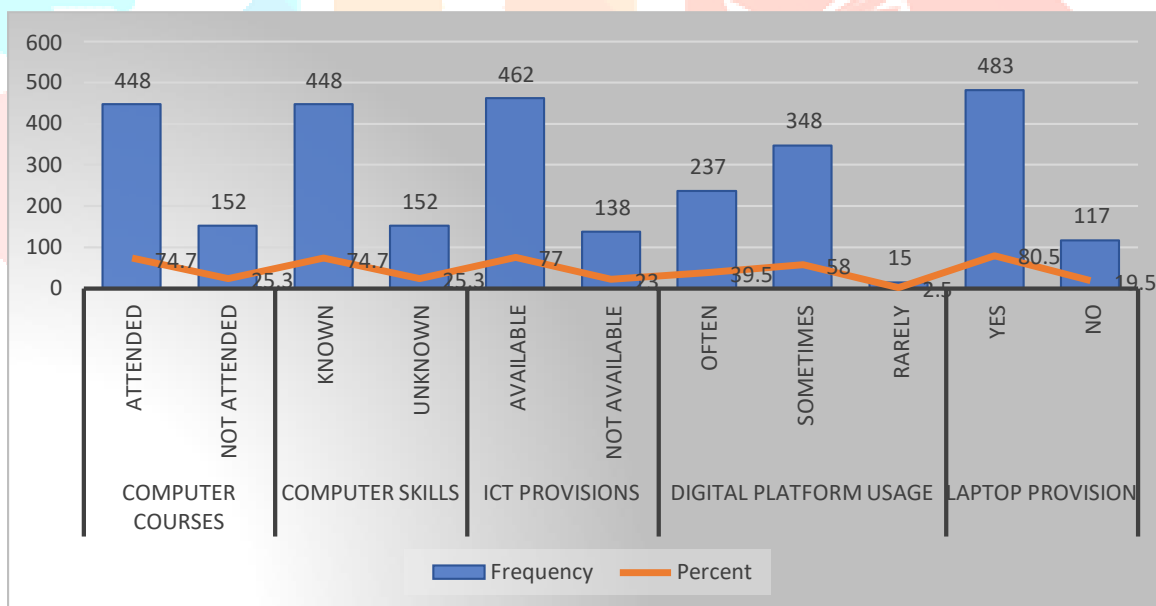

Figure 2: Bar Diagram Showing the frequency and percentage for ICT knowledge of Tamil languageteachers.

2. **The level of ICT knowledge of Tamil language teachers with regard to theselected sub-samples gender, grade level, and type of management is low.**

Table 2: Showing the Mean and Standard Deviation for ICT knowledge of Tamil language teachers with respect to Sub-Samples

S.No	Sample and Sub-sample	Dimension	N	Mean	Std. Deviation
1	Gender	Male	153	8.75	4.525
		Female	447	8.36	2.828
2	Types of Management	Government	517	8.59	3.439
		Aided	72	7.51	2.518
		Private	11	8.55	2.659
3	Grade Level	Secondary	250	8.50	3.808
		Higher Secondary	350	8.43	2.974

From the above table 2, it is observed that for all the sub-samples of the study, the mean score lay in between ($M\pm\sigma$) value i.e., 5 to 12. Hence it is inferred that the Tamil language teachers have an average level of ICT knowledge scores in terms of gender (male, female), working in Types of management (Government, aided, private schools), and Grade Level (those handlining secondary classes or higher secondary classes).

This Mean and Standard deviation for ICT knowledge of Tamil language teachers withrespect to Sub-Samples are shown in bar diagram figure 3.
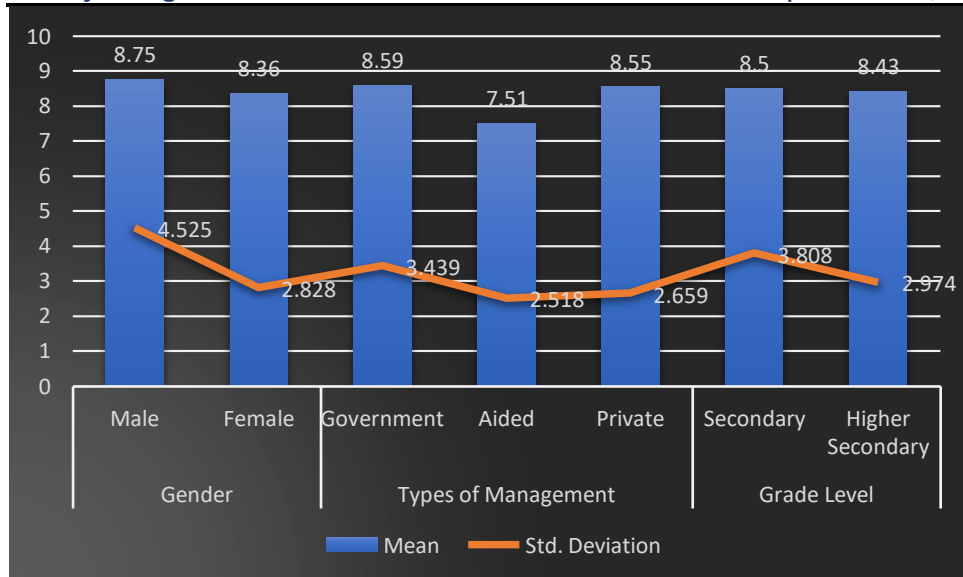
Figure 3: Bar Diagram Showing the Mean and Standard for ICT knowledge of Tamillanguage teachers with respect to Sub-Samples

3. **There is no significant difference in ICT knowledge of Tamil language teacherswith regard to gender, grade level, and type of management**

Table 3: t' test for ICT knowledge of Tamil language teachers with regard to Gender,Grade level.

Sub-sample	Dimension	N	Mean	Std. Deviation	't' value	Level of Significance at 0.05 level
Gender	Male	153	8.75	4.525	1.258	Not Significant
	Female	447	8.36	2.828		
Grade level	Secondary	250	8.50	3.808	0.233	Not significant
	Higher Secondary	350	8.43	2.974		

From the above table 3, with regard to gender, the calculated 't' value is found to be1.258; which is less than the table value 1.96 at 0.05 level of significance. Hence, the framed hypothesis 3(a) is accepted and it is concluded that there is a significant difference between male and female Tamil language teachers in their ICT knowledge. Moreover, with regard to Grade level, the calculated 't' value is found to be 0.233;which is less than the table value 1.96 at 0.05 level of significance. Hence, the framed hypothesis 3(b) is accepted, and it is concluded that there is no significant differencebetween secondary grade and higher secondary grade Tamil language teachers in theirICT knowledge.

Table 4: F' test for ICT knowledge scores of Tamil language teachers with regard toTypes of Management

Variables	Groups	Sum of squares	df	Mean square	'F' value	Level Significance at 0.05 level
Types of Management	Between Groups	72.999	2	36.500	3.290	Significant
	Within Groups	6623.959	597	11.095		
	Total	6696.958	599			

From table 4 above, with regard to Types of Management, the calculated 'F' value is found to be 3.290; which is larger than the table value 3.01 for 597df 2 at 0.05 level. Hence, the framed hypothesis 3(c) is rejected, and it is concluded that there is a significant difference between Tamil language teachers working in Government, aided,and private schools in ICT knowledge scores. Its mean scores graph is shown in figure4.
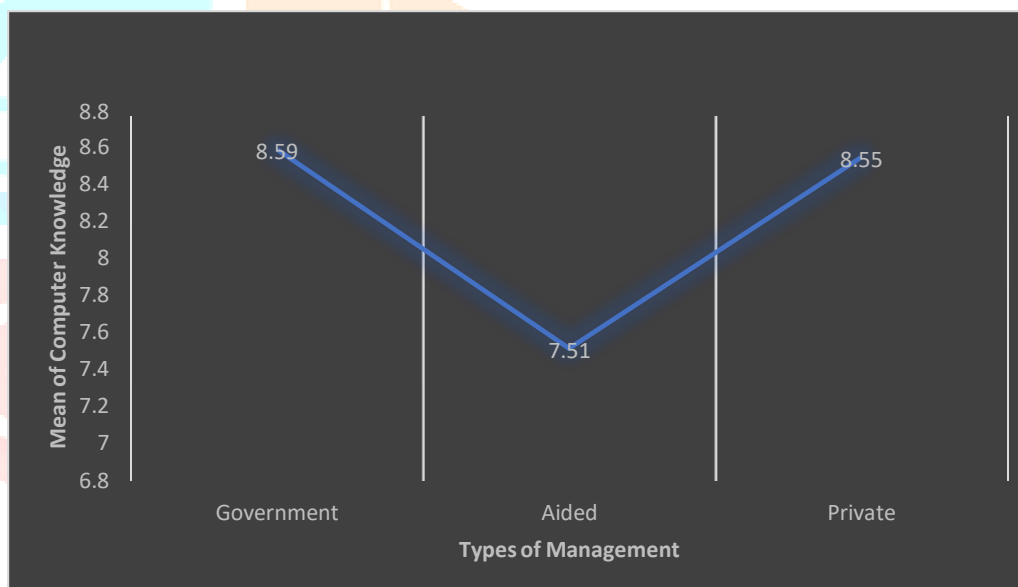

Figure 4: Linear graph showing the Mean of ICT knowledge of Tamil language teachersbased on working in Types of Management.

Findings and Discussion

The goal of high-quality education cannot be met without the use of technology in teaching and learning. Technology affects teachers' attitudes and skills at all levels (Nibedita Roy and Kaushik Das 2022). The present study found that Tamil language teachers had ICT knowledge at an average level.

According to Muthuprasad et al(2020), The technical competence of students and teachers in relationship to computer and internet usage is a key element affecting the efficacy of online classrooms. Similarly, the result of the analysis found that the level of ICT knowledge of Tamil language teachers with respect to a) Computer Courses attended, b) Computer Skills c) ICT Provisions d) Digital Platform usage and e) LaptopProvision in teaching is average.

According to Raju and Aruna, (2022) the ICT knowledge of secondary school teachersis independent with respect to gender, age, or teaching experience. Similarly, the presentstudy found that Tamil language teachers not differed in ICT knowledge with respect to male and female, working in Government, aided, and private schools, but differed with respect to handlining secondary or higher secondary classes.

Hence, the finding of this study shows that Tamil language teachers have ICT knowledge, and most of them attend computer courses and have computer skills. Theyuse the ICT provisions such as laptops or smart boards, etc.

CONCLUSION

When teachers are computer savvy and know how to incorporate technology into the curriculum, information and communications technology (ICT) can significantly improve student learning. Hence, the finding of this study shows that Tamil language teachers have ICT knowledge, and most of them attend computer courses and have computer skills. They use the ICT provisions such as laptops or smart boards, etc. Moreover, the study showed that the ICT knowledge of the Tamil language teachers towards their teaching is average, and there is no significant difference in gender as wellas the grade in which they taught. However, the ICT knowledge is differed based on thetype of school where they worked. In conclusion, the study suggested that strength training in the native language and embedded ICT-oriented techniques in the curriculumcan improve the usage of ICT by resident language teachers and develop ICT knowledge.

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