The Attitude of Tamil Language Teachers towards technology assisted teaching

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Abstract

Information and communications technology (ICT) may considerably enhance student learningwhen teachers are proficient with computers and know how to integrate Technology into the curriculum. As technological development is accelerating, digital access quickly affects everyaspect of global education, making digital literacy essential for everyone (OECD, 2015). Digital technologies are strongly rooted in teaching-learning and recommend the developmentof techno-skills among teachers. However, there is a gap in teachers' instructional activities and their usage of Technology in the classroom. It may seem due to the attitude of the teacherstowards the usage of Technology and its constraints. Hence, the present study explores TamilLanguage teachers' Attitudes towards Technology-assisted 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 5-point Licker scale. The study showed that Tamil language teachers had digital knowledge and an average level of Attitude towards Technology-assisted teaching in general. Moreover, their attitude differed based on Gender but not on Types of Management, Educational Qualification, Grade, and Experience.

Keywords: Language teacher, Secondary school teachers, Attitude, Technology assisted teaching, and Gender.

Introduction

As technological development is accelerating, digital access quickly affects every aspect of global education, making digital literacy essential for everyone (OECD). According to the National Curriculum Framework (NCF), Information and communication technologies (ICT) integration into education "requires substantialstudy" (NCF 2005). 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). Presently, Digital technologies are strongly rooted in teaching-learning and recommendthe development of techno-skills among the teachers.

When using Technology, Attitude is fundamental (Krishnakumar & Rajesh, 2011). Theterm "attitude" often refers to a person's perspective on something, whether favourableor unfavourable. Moreover, the effectiveness of technology usage greatly depends on teachers' attitudes toward it. Hence, this paper studies Attitude of Tamil Language Teachers towards Technology-assisted teaching.

Need and significance of the study

The advancement of digital innovation changes the present scenario of the classroom. However, there is a gap in the instructional activities of the teacher. Technology in society has revolutionized, and its usage goes beyond our thinking. Even the teaching-learning activities at the school level have implemented all kinds of Technology. However, And the other hand, the teachers' attitude toward utilizing Technology in theteaching-learning process in the classroom is not so achieved cent percent. Even though teachers had knowledge of information and communication technology, they were not interested in using classroom teaching. They still go such an ancient way. National Curriculum Framework stated, "Integration of Information and Communication Technologies (ICT) into schooling needs serious consideration" (NCF 2005). Hence, finding the teachers' Attitude towards

Technology-assisted teaching will give ideas to overcome this gap. Therefore, the study may be significant in exploring the Attitude ofTamil Language Teachers towards Technology-assisted teaching

Attitude towards Technology Usage

It is well acknowledged that teachers' attitudes about innovations are important when itcomes to implementing Technology in classrooms. If instructors don't adopt favourableattitudes toward new technologies, ICT implementation may not be successful. Teachers' attitudes against ICT usage in schools, according to Detrudes et al. (2003), not only make it harder to employ Technology but also nullify the learning benefits thatwere anticipated to result from the instructional change. Innovation is a multifaceted process that modifies practices as well as beliefs and attitudes.

When using Technology, Attitude is fundamental (Krishnakumar & Rajesh, 2011). Theterm "attitude" often refers to a person's perspective on something, whether favourableor unfavourable. According to Kumar (2017), a person's attitude influences how they act to achieve particular aims and objectives. Moreover, the effectiveness of technologyusage greatly depends on teachers' attitudes toward it because the success of every information system depends on its users (Almaiah, 2018).

The objective of the study

1. To find out the level of Attitude of Tamil language teachers towards Technologyassisted teaching and its Dimensions are (Significance in Teaching, Usefulness for students, Productivity for teaching and Teachers interest and acceptance).

2. To find out the level of Attitude of Tamil language teachers towards Technology-assisted teaching with regard to the selected sub-samples (Gender, Types of Management, Educational Qualification, Grade level and Experience).

3. To find out any significant difference in Attitude towards Technology-assisted teaching scores of Tamil language teachers with regard to Gender, Types of Management, Educational Qualification, Grade level and experience

The hypothesis of the study

1. The level of Attitude of Tamil language teachers towards Technology-assisted teaching and its Dimensions are (Significance in Teaching, Usefulness forstudents, Productivity for teaching and Teacher's interest and acceptance) is low.

2. The level of Attitude of Tamil language teachers towards Technology-assisted teaching with regard to the selected sub-samples (Gender, Types of Management, Educational Qualification, Grade level and Experience) are low.

3. There is no significant difference in **Attitude towards Technology-assisted teaching scores** of Tamil language teachers with regard to Gender, Types of Management, Educational Qualification, Grade level and experience

Participants

The researcher applied a normative survey method to identify Tamil language teachers' attitudes towards Technology-assisted teaching. The researcher employed a random sampling method. 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 41.7% teaching in the secondary grades and 58.3% in the higher secondarygrades. These teachers were chosen from the Erode district of Tamil Nadu, India. 74.5%were men, and 25.5% were women. They included 1.8% of teachers from private schools, 7.5% from aided schools, and 86.5% from government schools.

Tools used in the study

The data was collected through a self-constructed 5-point Likert scale questionnaire to test Tamil language teachers' attitudes towards Technology-assisted teaching. The researcher constructed and established the validity and reliability to questionnaire through a pilot study. The validated questionnaire consists of 40 items inteachers' attitude towards Technology-

assisted teaching questionnaire.

Analysis

1. The level of Attitude of Tamil language teachers towards Technology-assisted teaching and its Dimensions a) Significance in Teaching, b) Usefulness for students, c) Productivity for teaching and d) Teachers' interest and acceptance arelow.

Table 1: Showing the Mean and Standard Deviation for Attitude of Tamil language teachers towards Technology assisted teaching and its Dimensions of Tamil language teachers

Variable	N	Mean	SD	Level
Attitude of Tamil language teachers	600	138.38	11.328	Average
D1. Significance in Teaching	600	35.08	3.706	Average
D2. Usefulness for students	600	35.39	4.070	Average
D3. Productivity for teaching	600	34.31	4.416	Average
D4. Teachers interest and acceptance	600	33.60	4.102	Average

The calculated mean and standard deviation for total scores of Attitude of Tamil language teachers towards Technology-assisted teaching of the total sample is found tobe 138.38 and 11.328 respectively. The mean score lay in between (M±σ) value i.e., 128 to 149, Hence, the framed hypothesis 1(a) is rejected and it is concluded that the level of Attitude of Tamil language teachers towards Technology-assisted teaching is average

Similarly, the calculated mean and standard deviation for the dimension 1, 2, 3 and 4 are 35.08 (3.706), 35.39 (4.070), 34.31(4.416), 33.60 (4.102), respectively. They lay between (M±σ) value are 30-38 for all four dimensions.

Hence, the framed hypothesis 1(b), 1(c), 1(d) and 1(d) are rejected and it is concluded that the level of Attitude of Tamil language teachers towards Technology-assisted teaching with all four dimensions are average.

The following bar diagram shows the Mean and Standard Deviation for the Attitude of Tamil language teachers towards Technology-assisted teaching and its Dimensions of Tamil language teachers
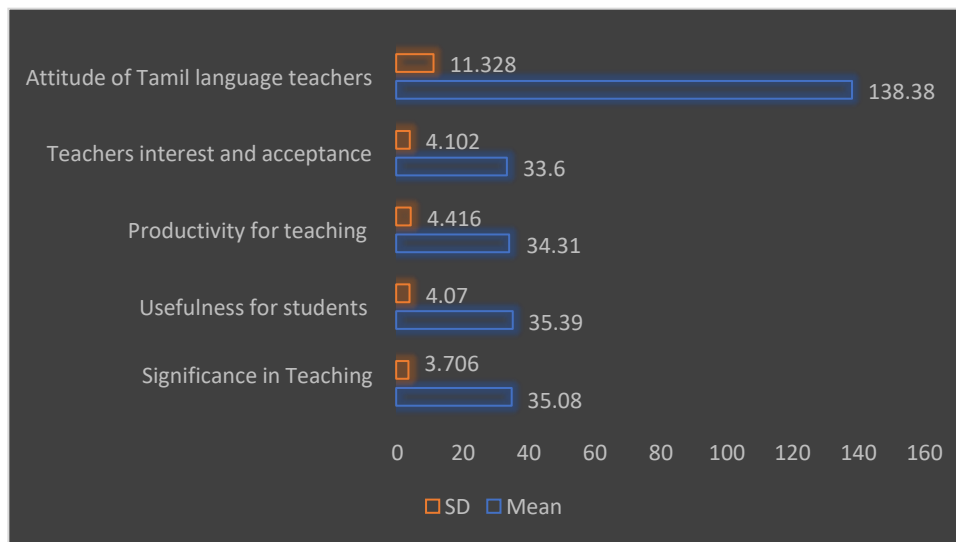
Figure 1: Bar Diagram Showing the Mean and Standard Deviation for Dimension of Attitude of Tamil language teachers towards Technology assisted teaching

2. **he level of Attitude of Tamil language teachers towards Technology-assisted teaching with regard to the selected sub-samples (Gender, Types of Management, Educational Qualification, Grade level and Experience) are low.**

Table 2: Mean and Standard Deviation with respect to the Attitude of Tamil language teachers towards Technology-assisted teaching based on the Sub-Samples

S.No	Sub-sample	Dimension	N	Mean	Std. Deviation
1	Gender	Male	153	136.67	12.521
		Female	447	138.96	10.843
2	Types of Management	Government	517	138.45	11.573
		Aided	72	137.26	9.878
		Private	11	142.45	7.421
3	Educational Qualification	UG with B.Ed.	243	138.42	11.673
		PG with B.Ed	357	138.35	11.103
4	Grade level	Secondary	250	138.93	12.188
		Higher Secondary	350	137.99	10.672
5	Experience	Below 5 Years	222	138.19	12.181
		Above 5 Years	377	138.49	10.826

From the above table 2, it is observed that for all the sub-samples of the study, the meanscore lay in between (M±σ) value i.e., 128 to 149. Hence it is inferred that the Tamil language teachers are having **average level** of Attitude towards Technology-assisted teaching with regard to the selected sub-samples - male and female(Gender), working in Government, aided and private schools (Types of Management), Educational Qualification (UG/PG with B.Ed.), taught at secondary or higher secondary level (Grade)and Experience (below/above 5 years). Hence, the framed hypothesis 2 is rejected.

Mean and Standard Deviation of Attitude towards Technology assisted teaching of Tamil language teachers with regard to the selected sub-samples is also graphically represented in figure 2.

Figure 2: Bar Diagram Showing the Mean and Standard Deviation for Attitude of Tamillanguage teachers towards Technology assisted teaching based on the Sub-Samples

3. **There is no significant difference in Attitude towards Technology-assistedteaching scores of Tamil language teachers with regard to Gender, Types of Management, Educational Qualification, Grade level and experience.**

Table 3(a): 't' test for Attitude towards Technology-assisted teaching scores of Tamil language teachers with regard to Gender, Educational Qualification, Grade level, experience.

Sub-sample	Dimension	N	Mean	SD	't' value	Level of Significanceat 0.05 level
a. Gender	Male	153	136.67	12.521	-2.172	Significant
	Female	447	138.96	10.843		
b. Educational qualification	UG with B.Ed.	243	138.42	11.673	0.081	Not significant
	PG with B.Ed	357	138.35	11.103		
c. Grade level	Secondary	250	138.93	12.188	1.005	Not significant
	Higher Secondary	350	137.99	10.672		
d. experience	Below 5 Years	222	138.19	12.181	-0.307	Not significant
	Above 5 Years	377	138.49	10.826		

From the above table 3(a), with regard to Gender, the calculated 't' value is found to be2.172; which is greater than the table value 1.96 at 0.05 level of significance. Hence, the framed hypothesis 3(a) is rejected and it is concluded that there is a significant difference between male and female in Attitude towards Technology-assisted teachingscores of Tamil language teachers.

Moreover, with regard to **Educational Qualification**, the calculated 't' value is found to be 0.081; with regard to **Grade level**, the calculated 't' value is found to be 1.005; with regard to experience, the calculated 't' value is found to be 0.307;

These t values are less than the table value 1.96 at 0.05 level of significance. Hence, theframed hypothesis 3(b), 3(c), 3(d) is accepted, and it is concluded that there is no significant difference between secondary grade and higher secondary grade, no significant difference in educational qualification (UG/PG with B.Ed.,) and no significant difference in experience(Below/Above 5 years) of Tamil language teachersin their Attitude towards Technology-assisted teaching scores.

Table 3(b) ANOVA results for Attitude towards Technology-assisted teaching of Tamillanguage teachers with regard to Types of Management

Variables	Groups	Sum of squares	df	Mean square	'F' value	Level Significanceat 0.05 level
e) Types of Management	Between Groups	274.618	2	137.309	1.070	Not Significant
	Within Groups	76592.501	597	128.296		
	Total	76867.118	599			

From the above table 3(e), with regard to Types of Management, the calculated 'F' value is found to be 1.070; which is less than the table value 3.01 for 597df 2 at 0.05 level. Hence, the framed hypothesis 3(e) is accepted, and it is concluded that there is no significant difference between Tamil language teachers working in Government, aided,and private schools in their *Attitude towards Technology-assisted teaching* scores. Its mean scores graph is shown in figure 3.
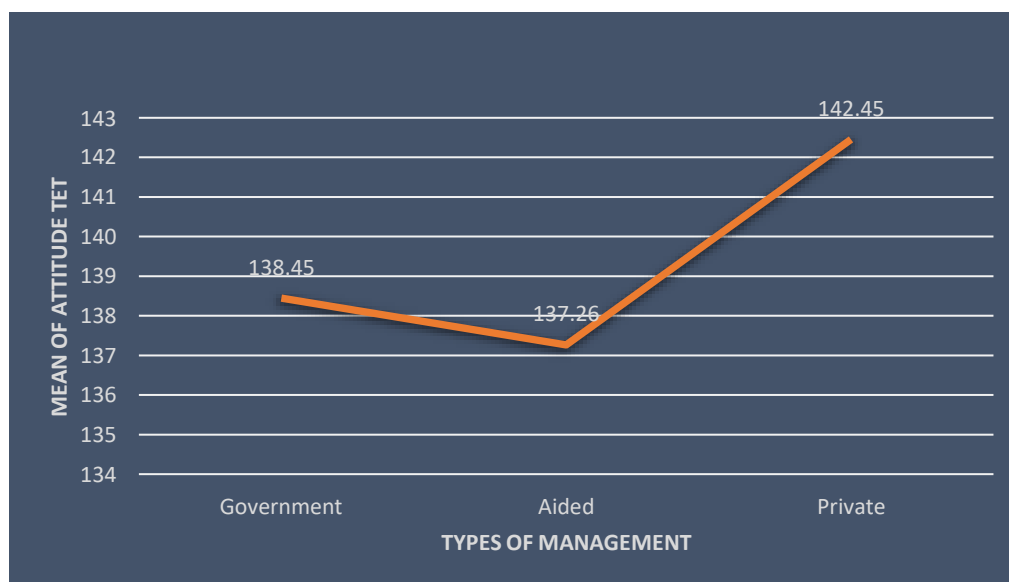

Figure 3: Line graph Showing the Mean for Attitude of Tamil language teachers towards Technology-assisted teaching based on the Sub-Samples - Types ofManagement.

Findings and Discussion

According to Karmakar and Behera (2015), higher secondary school teachers in West Bengal, India, did not have either good or negative attitudes toward e-learning. Primaryschool teachers in a Riyadh school that supported Technology had favourable attitudesabout e-learning, according to Alwahoub et al. (2020). The present study's finding supports this finding. i.e., the present study found that the level of Attitude of Tamil language teachers towards Technology-assisted teaching is average. Moreover, it foundthat the dimensions of attitude D1. Significance in Teaching, D2. Usefulness for students, D3. Productivity for teaching, and D4. Teachers' interest and acceptance are also average.

Muniisvaran Kumar et al (2020) found no significant mean score difference in Attitudetowards Technology between Government School Teachers and Government Aided school teachers. He also found no significant difference between males and females as well as experience in their Attitude towards Technology (Alkhalaf et al., 2012; Almaghaslah & Alsayari, 2020; Hoq, 2020). The present study supports their result. It found that no significant difference between secondary grade and higher secondary grade, no significant difference in educational qualification (UG/PG with B.Ed.,) and no significant difference in experience(Below/Above 5 years), and no significantdifference between working in Government, aided, and private schools in their Attitudeof Tamil language teachers towards Technology-assisted teaching.

However, this study found a significant difference between males and females in Tamillanguage teachers' attitudes towards Technology-assisted teaching scores. Moreover, The present study found that Tamil language teachers have an average level of Attitudetowards Technology-assisted teaching with regard to the selected sub-samples - male and female(Gender), working in Government, aided and private schools (Types of Management), Educational Qualification (UG/PG with B.Ed.), taught at the secondaryor higher secondary level (Grade)and Experience (below/above 5 years).

Conclusion

As technological development is accelerating, digital access quickly affects every aspect of global education, making digital literacy essential for everyone(OECD, 2015).Information and communications technology (ICT) may considerably enhance studentlearning when teachers are proficient with computers and know how to integrate Technology into the curriculum. Hence, the finding of this study shows that Tamil language teachers have digital knowledge and computer skills. They have an average level of Attitude towards Technology-assisted teaching in general. Similarly, with regard to the selected sub-samples, such as Gender, Types of Management, EducationalQualification, Grade, and Experience, they have an average level of attitude. Moreover, attitude is differed based on Gender but not differed based on Types of Management, Educational Qualification, Grade, and Experience.

In conclusion, the study suggested that positive attitudes towards digital devices and attitudes towards technology-assisted teaching will influence the teacher's performancein teaching and the student's achievement in learning.

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