



Identification of Technophobia of Tamil Language Teachers Towards their Teaching

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ABSTRACT

As long as there are new technologies, there will always be a specific type of Technophobia linked with them. Technophobia is a phenomenon intertwined with technology. This study examines the Technophobia of Tamil language teachers toward their teaching. Further, it explores the gender, grade, and type of management influences the Technophobia of the teachers. A total of 600 school teachers participated from Erode district of Tamilnadu, India, were in this survey. The data was collected through a self-constructed 5-point Likert scale questionnaire. The study showed that Technophobia and its dimension is average level in Tamillanguage teachers towards their teaching. However, the Technophobia in male and female Tamil language teachers have differed significantly (t value is 2.279), but Technophobia doesnot differ with respect to their grades and types of schools.

Keywords: *Technophobia, Language teacher, Secondary school teachers, and Gender.*

INTRODUCTION

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, technology is integrated with academics. The recent technology infusion changed classroom communication and methods of teaching (Suleiman 2013). Even though technology development has flourished in every field, techno-stress exists among teachers. It may be due to lacking technological knowledge, fear, device language, or physical, psychological, and economic factors. Fear of technology usage is a psychological factor termed as 'Technophobia'. It obstructs the successful application of technology in the teaching field. Ali Asghar (2012) defines Technophobia as a negative attitudinal response to technology. In teaching, Technophobia is caused by personal failure, device ambiguity (machine), and willingness to learn. Here, the term 'personal failure'

describes someone who is not up to date or has knowledge about the technology. Device ambiguity represents the immediate shift to new digital devices, causing hesitation in usage or confusion in handling the devices. The third, 'willingness to learn,' means opposes the changes from traditional teaching methods even though the technology tools and devices are available.

Moreover, the machine languages are in international languages. Hence, it could not be used by a teacher of the local language because they are not familiar with the international language. Thus, this paper explores the Technophobia of language teachers toward their teaching.

NEED AND SIGNIFICANCE OF THE STUDY

Teaching is a divine profession where teachers shape the culture, knowledge of society, and future nation in the classroom through their instruction. Traditionally, teachers were respected as "Guru" and only he was the only source for learning. But, in the modern and digital era, students get information from many digital media and have different 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. Therefore, technology must be integrated with academics (Yoshida, 2008). 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 development of techno-skills among the teacher. Even though digital applications and devices are available, not all teachers use them properly. It is due to psychological factors such as willingness to learn, machine ambiguity, personal failure, language understanding, fear etc.

Most digital devices and applications are built in machine or international languages. There is a gap between understanding machine language/international languages for teachers teaching other than international languages. Especially the Pattern of the most Indian language have differed from it. Hence, the teacher felt difficulty in the usage of technology. It causes Technophobia. Therefore, this study is considered significant and

needed to identify the Technophobia of Tamil language teachers. As one of the research gaps, this study explores the Technophobia of language teachers toward their teaching.

REVIEWS OF LITERATURE

Technophobia is a psychological condition characterized by fear of using technology. It hinders the successful integration of technology into the teaching profession: Technophilia (attraction to technology) and Technophobia on a psychodynamic level (rejection of technology). The two extremes of the interaction between technology and people, particularly between technology and society, are Technophilia and technophobia (Osiceanu 2015). The concept of "technophobia" has arisen due to

someone's fear of modern technology (Osiceanu 2015). According to some researchers, Technophobia is invariably pathological in nature. It derives from the Greek words 'techne' and 'Phobos', which means "fear or aversion", and "dislike or discomfort" when employing advanced technologies (Raju and Aruna, 2022). Alhaji and Usman (2013) stated that Technophobia is the main problem deterring academics from efficiently using ICT for teaching-learning. Anxiety and perception of the technology can both contribute to Technophobia (Joong-Gyu et al 2011). They further stated that the causes of Technophobia are a) Perception of Technology b) Technological Experience and c) Future Assumptions about the Effect of Technology. According to Roy and Das (2022), "teachers who have been in the field for a while absolutely lack technical skills." According to Chen K.T. (2012), teachers who resist using computers frequently suffer the consequences. High computer anxiety and low computer self-efficacy are two significant barriers. Technophobia affects student and teacher performance (Spelman Khululwa et al 2018). Technophobia is frequently considered a psychological orientation toward technology and an attitude toward technology that may result in poor technology utilization (Khasawneh, 2018).

Research Questions

1. Does Technophobia influence the Tamil language teacher in their teaching?
2. Is there any difference between gender, grade level, and type of management with respect to the Technophobia of language teachers toward teaching?

THE OBJECTIVE OF THE STUDY

1. To find out the level of Technophobia of Tamil language teachers in teaching.
2. To find out the level of Technophobia of Tamil language teachers based on its dimension of Personal failure, Machine ambiguity, and willingness to learn in teaching.
3. To find out the level of Technophobia scores of Tamil language teachers with regard to the selected sub-samples
4. To find out the significant difference in Technophobia scores of Tamil language teachers with regards to gender, grade level, and type of management.

THE HYPOTHESIS OF THE STUDY

1. The level of Technophobia of Tamil language teachers is low
2. The level of Technophobia of Tamil language teachers based on its dimensions
 - a) Personal Failure; b) Machine ambiguity and c) Willingness to learn is low
3. The level of Technophobia scores of Tamil language teachers with regard to these selected

sub-samples gender, grade level, and type of management is low.

4. There is no significant difference in **Technophobia scores** of Tamil language teachers with regard to gender, grade level, and type of management.

RESEARCH METHODS

Participants

The researcher applied a normative survey method to identify the Technophobia of Tamil language teachers. Teachers of Secondary and Higher secondary schools were chosen as the respondents for this study. A total of 600 school teachers participated in this survey, 250(41.7%) Secondary grade teachers and 350(58.3%) Higher Secondary School teachers selected from Erode district of Tamilnadu, India. Among them 153(25.5%) were female and 447(74.5%) were male. The researcher used a convenient random sampling technique. They were 517 teachers from government schools(86.5%), 72 teachers from aided schools (7.5%), and 11 teachers from Private schools (1.8%).

Tools used in the study

The data was collected through a self-constructed 5-point Likert scale questionnaire. The researcher constructed and established the validity and reliability to test the Technophobia of language teachers through a pilot study. The validated questionnaire consists of 30 items. These items are categorized under three dimensions, namely a) Personal Failure, b) Machine ambiguity, and c) Willingness to learn. Each dimension has ten items.

HYPOTHESIS TESTING

1. The level of Technophobia of Tamil language teachers is low

Table 1: Showing the Mean and Standard Deviation for Technophobia scores of Tamil language teachers

Variable	N	Mean	SD
Total Technophobia	600	111.02	13.271

The calculated mean and standard deviation for Technophobia of Tamil language teachers are 111.02 and 13.271, respectively. The mean score lay between $(M \pm \sigma)$ values, i.e., 99 to 123. Hence, the framed

hypothesis is rejected, and it is concluded that the level of Technophobia of Tamil language teachers is average. Based on the mid-value calculation, it is unfavorable.

2. The level of Technophobia of Tamil language teachers based on its dimensions

a) Personal Failure; b) Machine ambiguity, and c) Willingness to learn is low

Table 2: Showing the Mean and Standard Deviation for Technophobia scores and its Dimensions of Tamil language teachers

Variable	N	Mean	SD	Level
Personal Failure	600	37.7	4.925	Average
Machine ambiguity	600	35.98	5.353	Average
Willingness to learn	600	37.34	4.712	Average

The calculated mean and standard deviation for the dimension personal failure under Technophobia of Tamil language teachers are found to be 37.7 and 4.925, respectively. The mean score lay in between $(M \pm \sigma)$ value, i.e., 34 to 42; hence, the framed hypothesis is rejected, and it is concluded that the level of Technophobia of Tamil language teachers based on its dimensions - Personal Failure is average.

The calculated mean and standard deviation for the dimension Machine ambiguity under Technophobia of Tamil language teachers are found to be 35.98 and 5.353 respectively. The mean score lay in between $(M \pm \sigma)$ value i.e., 32 to 40. Hence, the framed hypothesis is rejected, and it is concluded that the level of Technophobia of Tamil language teachers based on its dimensions – “Machine ambiguity” is average.

Similarly, The calculated mean and standard deviation for the dimension of Willingness to learn under Technophobia of Tamil language teachers are found to be 37.34 and 4.712, respectively. The mean score lay between $(M \pm \sigma)$ values, i.e., 34 to 41. Hence, the framed hypothesis is rejected, and it is concluded that the level of Technophobia of Tamil language teachers based on its dimensions – “Willingness to learn” is average.

This Mean and Standard deviation for the dimension of Technophobia of Tamillanguage teachers are

shown in bar diagram 1.

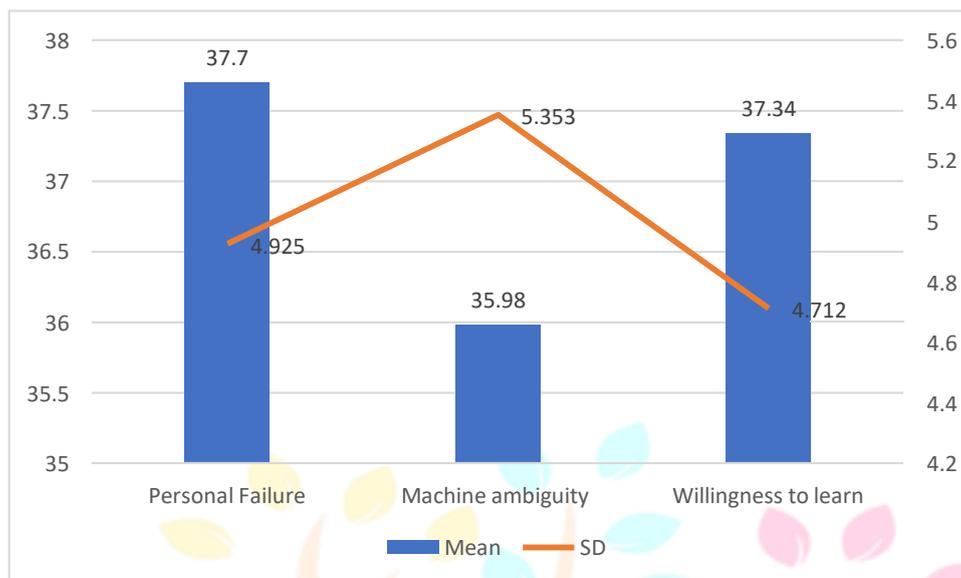


Figure 1: Bar Diagram Showing the Mean and Standard Deviation for Dimension of Technophobia scores of Tamil language teachers The level of Technophobia scores of Tamil language teachers with regard to the selected sub-samples gender, grade level, and type of management is low.

Table 3: Showing the Mean and Standard Deviation for Technophobia scores of Tamillanguage teachers based on the Sub-Samples

S.No	Sub-sample	Dimension	N	Mean	Std. Deviation
1	Gender	Male	153	108.92	14.516
		Female	447	111.74	12.755
2	Types of Management	Government	517	110.87	13.542
		Aided	72	111.42	11.723
		Private	11	115.45	9.363
4	Grade Level	Secondary	250	110.44	13.785
		Higher Secondary	350	111.43	12.895

From the above table 3, it is observed that for all the sub-samples of the study, the mean score lay in between $(M \pm \sigma)$ value i.e., 99 to 123. Hence it is inferred that the Tamil language teachers have an average level of Technophobia scores in terms of gender (male, female), working in Types of management (Government, aided, private schools), and Grade Level (those handling secondary

classes or higher secondary classes).

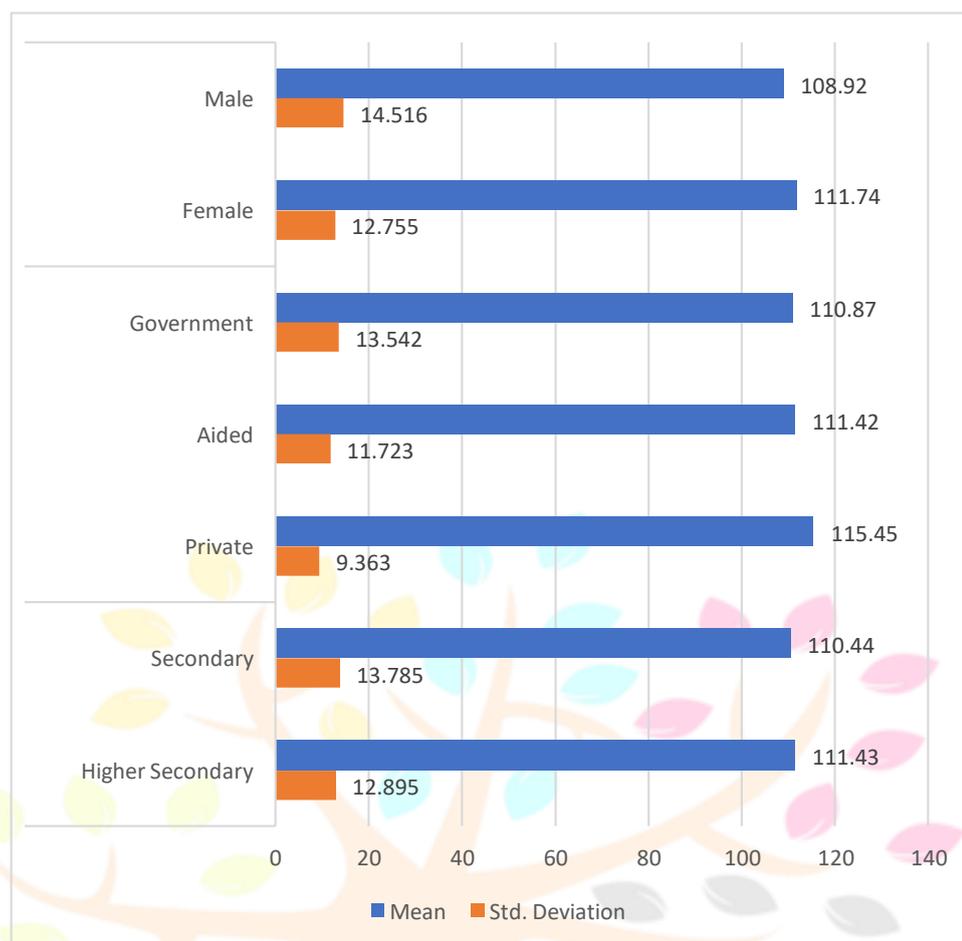


Figure 2: Bar diagram showing the Mean and Standard Deviation for Technophobia scores of Tamil language teachers based on the Sub-Samples

3. There is no significant difference in Technophobia scores of Tamil language teachers with regard to a) gender, b) grade level, and c) type of management.

Table 4: *t*' test for Technophobia scores 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	108.92	14.516	2.279	Significant
	Female	447	111.74	12.755		
Grade level	Secondary	250	110.44	13.785	0.902	Not significant
	Higher Secondary	350	111.43	12.895		

From the above table 4, with regard to gender, the calculated 't' value is found to be 2.279; which is higher than the table value 1.96 at 0.05 level of significance. Hence, the framed hypothesis 4(a) is rejected and it is concluded that there is significant difference between male and female Tamil language teachers in their Technophobia scores.

However, with regard to Grade level, the calculated 't' value is found to be 0.902; which is lower than the table value 1.96 at 0.05 level of significance. Hence, the framed hypothesis 4(b) is accepted, and it is concluded that there is no significant difference between secondary grade and higher secondary grade Tamil language teachers in their Technophobia scores.

Table 5: t' test for Technophobia scores of Tamil language teachers with regard to Types of Management

Variables	Groups	Sum of squares	df	Mean square	'F' value	Level Significance at 0.05 level
Types of Management	Between Groups	239.515	2	119.757	0.679	Not Significant
	Within Groups	105257.3	597	176.310		
	Total	105496.8	599			

From table 5 above, With regard to Types of Management, the calculated 'F' value is found to be 0.679; which is less than the table value 3.01 for 597df 2 at 0.05 level. Hence, the framed hypothesis 4(c) is rejected, and it is concluded that there is no significant difference of Tamil language teachers working in Government, aided, and private schools in Technophobia scores. Its mean scores graph is shown in figure 3.

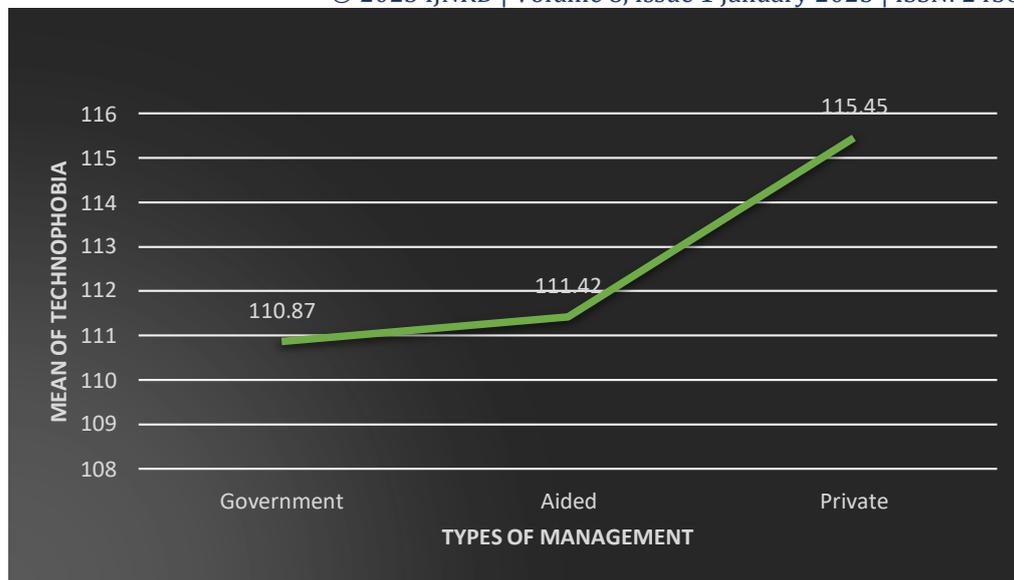


Figure 3: Linear graph showing the Mean of Technophobia scores of Tamil language teachers based on working in Types of Management.

Findings and Discussion

Without the use of technology in teaching and learning, the aim of high-quality education cannot be achieved. Technology is one of the variables that lead to changes in teachers' attitudes and abilities at all levels. But some oppose it, like "technophobia." Any unfavorable psychological response to technology, whether minor or severe, is referred to as Technophobia (Nibedita Roy and Kaushik Das 2022). The present study found that Tamil language teachers had Technophobia at an average level.

According to Nibedita Roy (2022), lack of individual skills, communications skills, the complexity of use, perceived uselessness, ethical and cultural influences, lack of training, age and experience are the major factor for Technophobia. Similarly, the result of the analysis at dimension-wise was determined. It found that the level of Technophobia of Tamil language teachers based on its dimensions- 'Personal Failure', 'Machine ambiguity', and 'Willingness to learn' is average.

Raju and Aruna, (2022) found that the Technophobia of secondary school teachers is unaffected by gender, age, or teaching experience. However, compared to their urban counterparts, secondary school teachers in rural regions exhibit greater degrees of Technophobia. However, the present study found that Tamil language teachers have an average level of Technophobia in terms of male and female, working in Government, aided, and private schools, and with respect to handling secondary or higher

secondary classes. Moreover, the study found no significant difference between secondary and higher secondary grade Tamil language teachers in their Technophobia scores. Similarly, this study found no significant difference between Tamil language teachers working in Government, aided, and private schools in Technophobia scores, but there is a significant difference between male and female Tamil language teachers in their Technophobia scores.

CONCLUSION

As long as there are new technologies, there will always be a certain type of Technophobia linked with them. Technophobia is a phenomenon intertwined with technology. The study showed that Technophobia and its dimension is average level in Tamil language teachers towards their teaching. Technophobia does not differ with respect to teachers teaching in secondary or higher secondary. Similarly, it has not differed regarding teachers working in different types of schools. However, the Technophobia in male and female Tamil language teachers were differed significantly. In conclusion, the study suggested that strength training in the native language can remove the Technophobia of resident language teachers.

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