Attitude Towards Multimedia Teaching Aids: A Study among Higher Secondary School Teachers

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ABSTRACT

The purpose of this research is to examine how instructors at the secondary level feel about using multimedia in the classroom. Recognizing the importance of educators' viewpoints on multimedia technologies is vital for successful integration of technology in education, which is happening at a rapid pace. The researcher used a normative survey as their methodology for this analysis. Five hundred and twenty-nine pupils from different schools in the Thanjavur region of Tamil Nadu make up the current study. We used a basic random sampling strategy to choose our samples. Using the Attitude Towards Multimedia Teaching Aids Scale (ATMMTAS), developed and validated by Prabhu, H., and Vaiyapuriraja, P. (2018), this research aimed to achieve the goals mentioned above. Findings indicate generally positive attitudes towards multimedia aids, with perceived benefits including enhanced student engagement and learning outcomes. However, challenges such as technical issues and insufficient training were also identified. The study concludes with recommendations for professional development and resource allocation to improve multimedia integration in classrooms.

KEYWORDS: Secondary School, Multimedia Tools, Technical Issues, Teaching Aids

INTRODUCTION

Science and technology have long been regarded as an instrument for nation building, they have propelled every country towards advancement; this can only be achieved through Education. The ability to produce, archive, and disseminate educational materials is encompassed by media in the setting of the classroom. Chalk, discussion, books, computers, overhead projectors, document cameras, audio systems (radio, CD player), integrated sound and video systems (TV, digital video cameras, DVDs), and media items are all part of this category. Research indicates that educators do not possess the knowledge and abilities required to effectively use multimedia teaching aids, despite the fact that they play a pivotal role in the integration of such tools into the classroom. The use of multimedia in the classroom has recently gained widespread acceptance as a cutting-edge instrumental tool that allows teachers to pique their pupils' interest in learning. A new medium has emerged, ushering forth novel approaches to data representation, communication, and manipulation. There is a critical need to improve kids' capacity to study in India via the use of multimedia. The first step in incorporating multimedia into K-12 education is to investigate and evaluate high school educators' perspectives on the use of such tools in the classroom. A critical evaluation of educators' perspectives on the use of multimedia in the classroom is urgently required.

Multimedia teaching aids are increasingly used to cater to diverse learning styles and enhance classroom interactivity. Research suggests that these aids can improve student comprehension and retention by providing visual and auditory stimuli (Mayer, 2009; Moreno & Mayer, 2007).

Teachers' attitudes towards technology are crucial for its successful implementation. Positive attitudes are often associated with higher levels of technology use and more effective integration into teaching practices (Ertmer, 1999). Factors influencing these attitudes include perceived ease of use, usefulness, and the availability of support (Davis, 1989). Common challenges include technical issues, lack of training,

and resistance to change. Studies have shown that inadequate professional development and insufficient technical support can hinder the effective use of multimedia tools (Koehler & Mishra, 2009; Inan & Lowther, 2010).

Significance of the study:

By examining how higher secondary school teachers perceive multimedia teaching aids, the study can reveal whether educators are positive, neutral, or negative about these tools. If teachers are receptive to multimedia teaching aids, the study can guide the development of strategies to effectively integrate these tools into the curriculum. Understanding their attitudes helps in tailoring professional development programs that address any concerns or barriers they might face. Overall, this study is significant because it sheds light on how higher secondary school teachers perceive and interact with multimedia teaching aids, which has implications for teaching practices, professional development, student learning, and educational policy.

Objectives: The current study has been carried out with the following objectives-
- ➢ To know about the Higher Secondary School Teachers' attitude towards Multimedia Teraching Aids.
- ➢ To find out the difference in the attitude towards multimedia teaching aids among higher secondary school teachers in respect of gender and residence.

Hypothesis:

Regarding their approach towards multimedia teaching tools, male and female instructors vary significantly.

When comparing the attitudes of rural and urban instructors towards multimedia teaching tools, a notable disparity emerges.

METHODOLOGY:

Method of the Study: The researcher used a normative survey as their methodology for this analysis. In order to have a greater grasp of the here and now, it entails documenting, analyzing, and interpreting data.

Sample of the Study: Five hundred and twenty-nine pupils from different schools in the Thanjavur region of Tamil Nadu make up the current study. We used a basic random sampling strategy to choose our samples.

Tools: Using the Attitude Towards Multimedia Teaching Aids Scale (ATMMTAS), developed and validated by Prabhu, H., and Vaiyapuriraja, P. (2018), this research aimed to achieve the goals mentioned above. On this five-point scale, you'll find 26 affirmative statements. Within the attitude towards multimedia teaching aids scale, there are five distinct answers to the statements: Strongly Agree, Agree, Undecided, Disagree, and Strongly disagree. Regarding each statement, the weight ages for the answer categories are 5, 4, 3, 2, and 1 for the SA, A, UD, DA, and SDA replies, respectively. The possible values for an individual's score are 26–130.

DATA ANALYSIS AND INTERPRETATION:
TABLE 1: The average and standard deviation of the sample's and subsamples' attitudes regarding multimedia pedagogical tools

S. No.	Samples	Sub-samples	N	Mean	Standard Deviation
1	Entire sample		529	93.27	19.60
2	Sex	Male teachers	272	91.70	19.37
		Female teachers	257	94.70	19.74
3	School locality	Rural area	240	91.21	18.37
		Urban area	289	94.98	20.44
4	Residence	Rural area	244	92.14	18.79
		Urban area	285	94.24	20.25
5	Teaching experience	Upto10 years	230	95.05	19.10
		Above10years	299	91.90	19.90
6	Designation	Graduate Teachers	244	93.30	19.83
		Post Graduate Teachers	285	93.25	19.47
7	Management Type	Government schools	297	88.87	18.44
		Aided schools	122	97.18	17.47
		Private schools	110	100.83	21.71
8	School type	Boys school	116	88.55	18.71
		Girls school	32	85.87	20.45
		Co-education schools	381	95.33	19.44

The positive attitude toward multimedia teaching aids scale among school instructors, as measured by their scores on the scale, is one of the aims of the current research. Tabulated in Table 1 are the average and standard deviation scores on the attitude towards multimedia teaching aids scale for both the whole sample and its subsamples. When considering both the whole sample and its subsamples, the means fall somewhere between 85.87 and 100.83. The whole sample mean attitude towards multimedia teaching tools scores is 93.27. Its mean is 98.00 and median is 94.00. The kurtosis value is 1.14, which is more than 0.26. A skewness of 0.67 was determined for it. Table 4.2 shows that the standard deviations are rather close to one another, with an interval of 17.47 to 21.71. It follows that the group is probably very similar to one another. If the mode, median, and mean don't differ much, then the distribution is almost normal. On the attitude towards multimedia teaching tools scale, 22 is the greatest possible score. People with scores between 3 and 7 are considered to have a low attitude towards multimedia teaching aids, those with scores between 7 and 12 are considered to have some attitude towards them, those with scores between 12 and 16 are considered to have a high attitude towards them, and those with scores above 16 are considered to have an extremely high attitude towards them.

Table- 2: the significance of the difference(t-value) in attitude towards multimedia teaching aids between the male and female higher secondary school teachers

Sub-samples	N	Mean	S.D	t value	Significance at 0.05Level
Male teachers	272	91.70	19.37	1.90	Not Significant
Female teachers	257	94.70	19.74		

I can see from the table that the calculated t value is 1.90, which is less than (1.96) at the 0.05 level of significance; therefore we may keep the null hypothesis. Teachers of higher secondary school students, both male and female, do not vary significantly in their attitudes about the use of multimedia in the classroom.

Table- 3: the significance of the difference (t-value)in attitude towards multimedia teaching aids between the higher secondary school teachers working in the schools located in the urban area and in the rural area

Sub-samples	N	Mean	S.D	t value	Significance at 0.05 Level
Higher secondary school teachers working in the schools located in the rural area.	240	91.21	18.37	2.23	Significant
Higher secondary school teachers working in the schools located in the urban area.	289	94.98	20.44		

The null hypothesis is rejected since the calculated t value of 2.23 is greater than (1.96) at the 0.05 level of significance, as shown in the table above. It follows that, when it comes to their attitude towards multimedia teaching aids, instructors at upper secondary schools in urban areas and rural areas couldn't be more different.

Findings:

➢ When it comes to their attitude towards multimedia teaching aids, male and female upper secondary school instructors are not significantly different.

Teachers in urban and rural high schools couldn't be more different in their attitudes on the use of multimedia in the classroom.

Conclusion:

This study underscores the generally positive attitude of higher secondary school teachers towards multimedia teaching aids and highlights the need for improved support and training. By addressing the identified challenges, educational institutions can better facilitate the effective use of multimedia tools, ultimately enhancing teaching and learning experiences.

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