Knowledge and Attitude of Teachers Toward Teaching English Grammar with Multimedia Technology at the Upper primarylevel

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ABSTRACT *The advent of computer multimedia technology in schools have resulted in the presence of computer hardware and software in the language classroom. To harness the potentials of technology, teachers play a pivotal role in ensuring technology use in the English Language Classroom. Hence, there is a need to investigate teachers' knowledge levels and attitudes towards multimedia technology in teaching English Grammar.. This study seeks to investigate the correlation between knowledge and attitudes of teachers to multimedia technology of 40 teachers, currently teaching English in Panchayat Union Middle Schools in Madurai district participated in this study. Data analysis employing the Pearson Coefficient Correlation calculations matched both components and uncovered a positive correlation. Teacher's responses to the study also indicated the awareness among them of the need to upgrade current knowledge in technology use in the classroom.*

Introduction:

The proliferation of computers in our society, educational institutions and work places have been overwhelming. Computers and the technologies offered have been hailed as an enhancement and advancement if not, a panacea to many challenges faced in everyday activities. Perhaps the greatest investment of computer technology is into educational institutions, notably the schools. In the context of Government of Tamil Nadu, the Department of School Education has embarked on a series of programmes to ensure that more schools are equipped with computer technology.

Indeed it could be said that multimedia technology constitutes a powerful tool which enables integration, convenience and durability. Suffice to state, multimedia technology enables approaches and innovations in language instruction and learning that were never before imagined. But of course the very presence of multimedia technology in and by itself does not ensure pedagogical innovations with a click of a mouse (Murray and Barnes, 1998; McMeniman & Evans, 2003). Galligan (1995) asserts the teacher factor as being "critical to the effective use of computers for learning". At the end of the day it is the teacher who "remains the primary director of learning" (Murray and Barnes, 1998: 251).

Research studies have indicated that while there have been efforts by governments to support the utilisation of multimedia technology in schools, teachers have not been able to tap the purported potentials... McMeniman & Evans (2003) acknowledge the need to have skilled teachers who are able to use the multimedia technology effectively in the classroom to enable improvements in language teaching and learning so as to improve students' target language proficiency.

Indeed, teachers play a pivotal role in the utilization of computer technology in the classrooms. Hence, there is a need to study this teacher factor. And in doing so, one area that needs to be looked at pertains to teacher's attitudes. Woodrow (1991) observes that the success of computer technology programmes depends on the attitudes of teachers. Teachers' attitudes towards multimedia technology influences students' attitude towards technology (Akbaba & Kurubacak, 1998). Further, Akbaba & Kurubacak (1998) argued that unless we identify teacher's attitude towards multimedia technology, we cannot expect the teachers to effectively support the integration of technology into the curriculum.

In order to investigate the attitudes of teachers, it is imperative too that the teachers' knowledge in utilizing technology be also identified. In this respect, knowledge of the various approaches in which computer technology can be utilized. At its most fundamental, computer technology can be utilized in three ways. These are as **a tutor, tool and tutee (Taylor, 1980 in Paul, 1999).**

As a **tutor**, computer technology is utilized as a system that presents the subject to which the learners will respond and provides a learning environment which is controlled (Hsu et al, 2000). This involves the user being presented/presenting and guided by the technology to complete a particular task in a regimented and sequenced approach. At this level, the user in this case, the teachers concerned, possess knowledge which is at a **basic or elementary level.**

In the **tool** category, the computer is exploited "to support or facilitate a variety of instructional activities" (Chen et al, 2000:185). This requires the user to utilize the presentation package for classroom teaching by using the software like Microsoft Power Point, Excel and Word (Taylor, 1980 in Paul, 1999). In doing so, the user utilises the software tools in the computer and in the process needs to learn how to use the software effectively in order to create a good presentation. This utilisation of the computer in this respect can be considered as being at a **intermediate level**. Teachers have the knowledge to utilise the computer as a tool to enhance instructional performance.

As for the computer as a **tutee**, this refers to users, in this case teachers, who are able to create programme(s) using computer programming language such as LOGO, Java Script etc., and have control over the usage of the computer (Taylor, 1980 in Paul, 1999). In short the user learns as well as teaches the computer in the process of creation. Thus, at this particular stage these teachers can be considered as advanced users of the technology and would in turn apply such knowledge level in their instructional efforts.

These three levels of knowledge and use and their corresponding requirements are translated as a guide in whom these teachers' level of knowledge will be assessed. This is

important in investigating these teachers' attitudes towards multimedia technology in correlation to their background knowledge. With these in mind this particular case study intends to investigate the correlations between the English Language Teachers'attitude toward multimedia technology and their background knowledge in using multimedia technology.

This will operate on the following assumptions i. English Language Teachers with positive attitudes towards multimedia technology are at an intermediate or advanced level of knowledge in multimedia technology. ii. English Language Teachers with low or negative attitudes towards multimedia technology are at the most basic level of knowledge in multimedia technology.

Objective of the study:
1) To find out the existing relationship between the knowledge and attitudes of English teachers   in using Multimedia technology.
2) To find out the existing relationship between the knowledge and attitudes of graduate level English teachers in using Multimedia technology.
3) To find out the existing relationship between the knowledge and attitudes of Secondary Grade English teachers in using Multimedia technology.

Hypothesis of the study:
1) There is no significant relationship between the mean scores of Knowledge and Attitude of English teachers in using Multimedia technology.
2) There is no significant relationship between the mean scores of Knowledge and Attitude of Graduate level English teachers in using Multimedia technology.
3) There is no significant relationship between the mean scores of Knowledge and Attitude of Secondary Grade level English teachers in using Multimedia technology.

Sample of the study:
The investigator has chosen 40 English teachers working in T.Vadipatti and Alanganallur Panchayat Union of Madurai district for the investigation by random sampling technique. (LeCompte & Preissle 1993: 98)

English language teachers with Secondary Grade level and Graduatelevel qualifications.

Teachers at Upper Primary school level.

Utilising the computer notebook or laptop, computer desktop, English language Multimedia   CD-ROM,DVDs,Educational CDs and the LCD projector provided by the Department of Elementary Education.

Methodology of the study:
The study is a cross-sectional study using a quantitative and qualitative descriptive survey questionnaire as an instrument to elicit the participants 'response. The descriptive quantitative and qualitative survey will provide the study with the necessary data to analyze the English language teachers' attitudes towards using Multimedia technology.

Research Tools:
Likert scale based questionnaire. The instrument designed is based on **Roberson et al (1995)** list of items of computer attitudes. Robertson et al (1995) set out to investigate gender differences, students and staff differences in attitude towards using computers in the school. The instrument they used to measure the attitude of the students and staff is used as a guide here for developing the attitude survey for English language teachers for this investigation.

Data was obtained using the Likert scale based questionnaire. The questionnaire consisted of 2 sections. The first section was to determine the teachers'background level of

knowledge in using multimedia technology. In this section, the 5 point Likert Scale used has a minimum score of 15 and a maximum score of 75. There are 15 statements related to background knowledge. Teachers with a low level of knowledge in using Multimedia Technology will have a score of 15 to 24. Scores at an average level are between 25 to 50. Teachers with a high level of knowledge in using Multimedia Technology will fall between the scores of 51 to 75.

Table 1: Scores in Level of Knowledge in Using Multimedia Technology

Score	Level of Knowledge
15 to 24	Low or elementary level
25 to 50	Average or intermediate level
51 to 75	High or advanced level

The second section was to determine their attitudes towards multimedia technology. There are 15 items in this section. The items are divided into 3 categories, which are cognitive, affective and behavioral. The minimum point score for this section is 15, while the highest score for this section is 75. Therefore, the neutral score for this section is 45. Scores that fall below this point are scores for negative attitude, while scores that are above 45 are positive attitudes.

Table 2: Score for Level of Attitude

Score	Level of Attitude
15 to 44	Negative attitude
45	Neutral
46 to 75	Positive attitude

Statistical Techniques Used:
Karl Pearson's Product Moment Correlation Technique to study the Relationship between the variables (Knowledge and Attitude).

Analysis and Interpretation:
Hypothesis-I
There is no significant relationship between the mean scores of Knowledge and Attitude of English teachers in using Multimedia technology.

Table 3.1.

Variables	N	Mean	SD	Co efficient of Correlation	Level of significance
Knowledge level	40	39.03	15.72	0.905	Significant at 0.01 level
Attitude level	40	55.93	10.90		

From Table 3.1, it is found that the calculated 'r' value 0.905 is greater than the table value at 0.01 level of significance. Hence the Null hypothesis is rejected and it is concluded that there is significant relationship between the mean scores of Knowledge and Attitudes of English teachers in using Multimedia.

Hypothesis- II
There is no significant relationship between the mean scores of Knowledge and Attitude of graduate level English teachers in using Multimedia technology.

Table 3.2.

Variables	N	Mean	SD	Co efficient of Correlation	Level of significance
Knowledge level	30	37	14.55	0.8765	Significant at 0.01 level
Attitude level	30	54	10.04		

From Table 3.2, it is found that the 'r' value is greater than the table value at 0.01 level of significance. Hence the Null hypothesis is rejected and it is concluded that there is a significant relationship between the mean scores of Knowledge and Attitude of graduate English teachers in using Multimedia technology.

Hypothesis- III
There is no significant relationship between the mean scores of Knowledge and Attitude of Secondary grade level English teachers in using Multimedia technology.

Table 3.3.

Variables	N	Mean	SD	Co efficient of Correlation	Level of significance
Knowledge level	10	46	16.84	0.9336	Significant at 0.01 level
Attitude level	10	61	11.71		

Table 3.3, it is found that the 'r' value is greater than the table value at 0.01 level of significance. Hence the Null hypothesis is rejected and it is concluded that there is a significant relationship between the mean scores of Knowledge and Attitude of Secondary grade English teachers in using Multimedia technology.

Findings of the study:
A significant relationship exists between the knowledge level and attitude level of all English teachers handling upper primary classes.

A significant relationship exists between the knowledge level and attitude level of graduate English teachers handling upper primary classes.

A significant relationship exists between the knowledge level and attitude level of Secondary Grade English teachers handling upper primary classes.

The mean scores of Knowledge level and Attitude level of Graduate English teachers and Secondary grade English teachers show that Secondary grade teachers are superior to graduate teachers.

The co efficient of correlation is very high between Knowledge and Attitude among Graduate and Secondary grade teachers.

Educational Implications:
Although these teachers are at a higher level in terms of knowledge of multimedia, their attitudes towards the technology in terms of the cognitive, affective and behavioural largely correlates but records a minor difference. Perhaps such a negligible difference could be attributed to these teachers' confidence in exploiting the technology for teaching and learning purposes. While they may possess a higher level of knowledge with regards to using the technology, their attitudes towards its use may be slightly affected by their confidence in integrating it with their lessons. A good knowledge in Multimedia helps the teacher to a great extent to make the learning process easy and concrete in the Upper primary classroom.

Conclusion:
It could be concluded that English Language Teachers with positive attitudes towards using multimedia technology in the Upper primary classroom have a higher level of knowledge in using multimedia technology and this knowledge is at an intermediate or advanced level.

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