SMART CLASSROOM KNOWLEDGE OF THE TEACHERS IN RELATION TO THEIR ICT ATTITUDE

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ABSTRACT

The latest technology of teaching and learning in the field of education is now shifted on smart classes. It is a new vision in education. The smart learning approach provides smart thinking tools as well as a techno based environment to learn for learners of all age groups. The use of ICT and a different educational technology in teaching learning techniques gives a smart effect too. Instruction through computer, internet and multimedia procedures will be a common thing in future. The smart class concept is completely new vision and able to produce interest in studies. Smart school and smart class is an innovative concept for teachers and students. This study was conducted to study the smart classroom knowledge of the teachers in relation to their ICT attitude. Random sampling technique has been used in the selection of the sample of 500 teachers working in the higher secondary schools situated in vellore District of Tamilnadu, India. The Smart Classroom Knowledge Test (SCRKT) constructed and validated by Prabhu, H., and Vaiyapuriraja, P., (2019) and Attitude Towards the use of ICT in Teaching Scale (ATUITS) constructed and validated by Rajasekar, S., (2014) has been used and the findings of the investigation reveals that the majority of the teacher shows average level of smart classroom knowledge and neutral attitude towards ICT. Moreover, the teachers shows no significant difference in smart classroom knowledge and attitude towards ICT whereas to their sex, school locality, residential area and medium of instruction.

Keywords: Smart classroom knowledge, Attitude towards ICT, Teachers.

INTRODUCTION:

Teacher is an effective and dominating factor among the ones contributing to educational improvements. The teacher effectiveness depends mainly on the teachers' attitude, characteristics and the classroom phenomena such as environment and climate, organization and management. Various commissions and committees have recommended methods of bringing about qualitative improvements in education. As a result, the teachers are

motivated, inspired and endured to develop better curriculum, text books and teaching aids. But, all the efforts are meaningless unless teachers are not having the positive attitude towards educational technology. The teaching learning process has been greatly influenced by rapid advances in smart classroom and Information and Communication Technology (ICT).

Smart classrooms are electronically enhanced lecture theatres and classrooms. These rooms create new opportunities in teaching and learning by integrating computer, multimedia and network technology. The smart classroom is highly technological concept where presentation of content is optimal, interactive, convenient access of learning resources. It is also helpful for contextual awareness, classroom layout and management. It may be summarized as Showing, Manageable, Accessible, Real-time Interactive and Testing, which nicknames "SMART".

LITERATURE REVIEW:

Ali Semerci and Kemal Aydm (2018) conducted a study on high school teachers' attitudes towards ICT use in education and examined whether the teachers' attitudes significantly differ according to their gender, age, teaching experience, ICT experience, ICT skills and ICT training. The participants consisted of 353 teachers working in different high schools in Ankara in the academic year 2016-2017. Research results illustrated that teachers have a high level of positive attitude towards ICT use in their classes, yet there is no significant difference between teachers' ICT willingness by their gender, age, teaching experience, ICT experience, ICT skills and ICT training. However, they have significantly different negative attitude (ICT anxiety) towards ICT use in education by their ICT experience, ICT skills and ICT training.

Dipankar Das (2016) conducted a study on the effectiveness of Smart classroom in modern teaching-learning situation. The study is mainly analytical in nature. The data has been collected from various publications, reports, monographs, books, journal, newspaper and internet source etc. The researcher found that Smart Classroom is very effective in educational system. But in India this concept is not widely spread throughout the country. Only few cases are to be noticed. The Concept of smart classroom is Scientific and psychological. So students must be benefited from this concept. Smart whiteboard provides the opportunity of joyful learning. In the present study, the researcher tries to know how far this concept is student friendly and helpful for educational system.

Balta Nuri and Duran Moharren (2015) made a study on Interactive whiteboards which are highly rated by both teachers and students. Students mostly prefer the usage of interactive whiteboards in math courses, and their attitudes differ across their genders and school levels. As students get elder, their positive attitudes toward interactive whiteboard technology decrease, and it has been found out that there is no difference between teachers' and students' attitudes. This study includes some implications for policy makers, educator and researchers.

METHODOLOGY:

Normative survey method has been used to study the objectives of the present study which are as follows:

1. To study the level of smart classroom knowledge of the teachers.
2. To study the favourableness or unfavourableness of the attitude towards ICT of the teachers.
3. To study if there is any significant difference in the (a) smart classroom knowledge and (b) attitude towards ICT between

    (i) Male and Female teachers (ii) the teachers working in the schools located in rural area and urban area (iii) the teachers residing in rural area and urban area (iv) teachers teaching in Tamil medium and English medium.
4. To study if there is any significant relationship between the teachers' smart classroom knowledge and attitude towards ICT.

Random sampling technique has been used in the selection of the sample of as many as 500 teachers working in Tiruvannamalai district of Tamilnadu, India.

The Smart Classroom Knowledge Test (SCRKT) constructed and validated by Prabhu, H., and Vaiyapuriraja, P., (2019) has been used in this study. This consists of 28 Multiple choice questions with four choices. The correct answer scores 1 and the wrong answer scores 0. The score ranges from 0 to 28. One who scores upto 7 said to have low level of smart classroom knowledge, one scores above 7 upto 21 said to have average level of smart classroom knowledge, and one who scores above 21 said to have a high level of smart classroom knowledge. The reliability of the scale has been found by as 0.90 and its intrinsic validity was found to be 0.81. Thus the smart classroom knowledge test has validity and reliability.

The Attitude Towards the use of ICT in teaching Scale (ATUITS) constructed and validated by Rajasekar, S., (2014) has been used in this study. This consists of 37 statements. Each statements has been build against 5 responses namely "Strongly Agree", "Agree", "Undecided", "Disagree", and "Strongly disagree" which bears the arbitrary weights of 5,4,3,2 and 1 for the positive statements and the scores were reversed for the negative statements. The score ranges from 37 to 185. One who scores upto 41 and below said to have Highly unfavourable attitude towards the use of ICT in teaching, one who scores above 88 upto 42 said to have Unfavourable attitude towards the use of ICT in teaching, one who scores above 132 upto 89 said to have Neutral attitude towards the use of ICT in teaching, one who scores above 179 upto 133 said to have Favourable attitude towards the use of ICT in teaching and one who scores 180 and above said to have a Highly favourable attitude towards the use of ICT in teaching. The intrinsic validity of the scale was found to be 0.84, and the reliability of the scale as 0.71. Thus the Attitude towards the use of ICT in teaching scale has validity and reliability.

STATISTICAL TECHNIQUES:

The mean and standard deviation for the entire sample and its sub-samples were computed for smart classroom knowledge and attitude towards ICT scores. The test of significance ('t' test) was used in order to find out the significance of the difference between the means and correlation analysis of the smart classroom knowledge and attitude towards ICT scores. SPSS 11.5 was used to compute the smart classroom knowledge and attitude towards ICT scores and the results were furnished in the Table1, Table 2, Table 3. respectively.

TABLE 1

THE MEAN, SD AND 't' VALUE OF THE SUB SAMPLES OF THE SMART CLASSROOM KNOWLEDGE SCORES

S.NO	SUB-SAMPLES	N	MEAN	SD	't' VALUE	SIGNIFICANT AT 0.05 LEVEL
1	Entire sample	500	18.66	2.20		-
2	Male teachers	312	18.60	2.22	0.20	Not Significant
	Female teachers	188	18.77	2.17		
3	Rural area school teachers	283	18.63	2.23	0.37	Not Significant
	Urban area school teachers	217	18.70	2.16		
4	Teachers residing in rural area	307	18.61	2.16	0.62	Not Significant
	Teachers residing in urban area	193	18.74	2.27		
5	Teachers teaching in tamil medium	291	18.76	2.14	1.16	Not Significant
	Teachers teaching in English medium	209	18.53	2.27		

TABLE 2

THE MEAN, SD AND 't' VALUE OF THE SUB SAMPLES OF THE ATTITUDE TOWARDS ICT SCORES

S.NO	SUB-SAMPLES	N	MEAN	SD	't' VALUE	SIGNIFICANT AT 0.05 LEVEL
1	Entire sample	500	124.52	7.30	-	
2	Male teachers	312	124.47	7.21	0.20	Not Significant
	Female teachers	188	124.61	7.46		
3	Rural area school teachers	283	124.37	7.21	0.53	Not Significant
	Urban area school teachers	217	124.72	7.42		
4	Teachers residing in rural area	307	124.27	7.35	0.97	Not Significant
	Teachers residing in urban area	193	127.92	7.22		
5	Teachers teaching in tamil medium	291	124.92	7.23	1.44	Not Significant
	Teachers teaching in English medium	209	123.96	7.37		

TABLE 3

THE SIGNIFICANCE OF THE RELATIONSHIP ('r' VALUE) BETWEEN SMART CLASSROOM KNOWLEDGE SCORES AND ATTITUDE TOWARDS ICT SCORES OF THE TEACHERS

VARIABLES	N	MEAN	S.D	'r' VALUE	SIGNIFICANCE AT 0.05 LEVEL
SMART CLASSROOM KNOWLEDGE	500	18.66	2.20	0.786	Not Significant
ATTITUDE TOWARDS ICT	500	124.52	7.30		

FINDINGS OF THE STUDY

The following are the important findings obtained from this investigation:

1. Majority of the teachers show average level of smart classroom knowledge.
2. Majority of the teachers shows neutral attitude towards ICT.
3. There is no significant difference in smart classroom knowledge between the male and female teachers.
4. There is no significant difference in smart classroom knowledge between the teachers working in the schools located in the urban areas and in the rural areas.
5. There is no significant difference in smart classroom knowledge between the teachers residing in the urban areas and in the rural areas.
6. There is no significant difference in smart classroom knowledge between the teachers whose medium of instruction was in the English medium and in the Tamil medium.
7. There is no significant difference in attitude towards ICT between the male and female teachers.
8. There is no significant difference in attitude towards ICT between the teachers working in the schools located in the urban areas and in the rural areas.
9. There is no significant difference in attitude towards ICT between the teachers residing in the urban areas and in the rural areas.
10. There is no significant difference in attitude towards ICT between the teachers whose medium of instruction was in the English medium and in the Tamil medium.
11. To study if there is any significant relationship between the teachers smart classroom knowledge and attitude towards ICT.

DISCUSSION OF THE RESULTS

The study was designed with the objectives of finding out the level of Smart classroom knowledge of the teachers in relation to their Attitude towards ICT. The findings of the present study are discussed below.

The present study revealed that teachers shows average level of Smart classroom knowledge. This gets contradiction from an earlier study done by Balta Nuri and Duran Moharren (2015). In the present study no significant difference has been observed in respect of the Smart classroom knowledge such as Sex, Locality, Residence and Medium of instruction of the school teachers. This gets contradiction from an earlier study done by Balta Nuri and Duran Moharren (2015).

The present study revealed that teachers shows neutral attitude towards ICT. This gets contradiction from an earlier study done by Ali Semerci and Kemal Aydm (2018). In the present study no significant difference has been observed in respect of the attitude towards ICT such as Sex, Locality, Residence and Medium of instruction of the school teachers. This gets support from an earlier study done by Ali Semerci and Kemal Aydm (2018).

CONCLUSION

This study has revealed that majority of the higher secondary teachers show average level of smart classroom knowledge and neutral attitude towards ICT. Even though, there is no significant difference between teachers' in respect of their gender, locality of the schools, residence of the schools, and medium of the instruction, Moreover the results shows there is no significant relationship between the teachers smart classroom knowledge and attitude towards ICT. Through an awareness of their preferred smart classroom knowledge, The rapid advancement in Information and Communication Technology (ICT) has been greatly influenced to the teaching learning process. Integration of ICT in classroom helps to create an environment for students' activities that lead to meaningful and sustainable learning experiences.

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