Attitude of Smart Board Using Teachers towards Smart Board Teaching

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Abstract:

Education is an instrument that shows new paths and knowledge to all the learners. Over the last three decades or so, world has been promoting the use of the technology in education system. Innovative technology is shaping the existing and future of higher education and influencing teaching methodologies. The globalization of technology continues to change the way we live and work. A number of studies have been under gone in the developed countries that have advanced descriptive approaches on how educators should go about the using of Smart IWB's in education. Teachers, therefore, ought to have required skills to integrate IWB's in teaching and learning system. School leaders have a role in enabling the effective use of IWB's. This study intends to find out the attitudes of Smart Board using teachers in their classrooms towards smart board teaching. Objectives, Hypothesis, Variables, Tool, Sample, Method, Data Analysis, and Educational Implications are discussed as follows.

Keywords: Technology, Innovation, Smart Classroom, Interactive White Board (IWB).

I. Introduction:

Education opens our concealed qualities and helps people to attain Salvation. According to the primitive sages, "Education is the third eye of a person". It gives insight into all affairs. It teaches him how to act justly and rightly. Education is solution for all our individual, social, national and universal problems. Man is a social animal who is always on a lookout of creativity. Human life has improved tremendously as a result of the growth in science and technology. In a world based on science and technology, it is education that controls the level of prosperity, welfare, and security of the people. Science and Technology are two sides of a coin. It have been linked new discovered in science have helped to lead advancements in new technologies and improvements in existing technologies in turn aid in new developments in science. The Indian education commission (which is known as Kothari Commission) report rightly said that "the destiny of India is now being shaped in her class rooms. This we honest are no more rhetoric. Education is a social institution that has also been effected by technological developments. We have been using technology so much these days in each and every domain of our lives, in the regular household work, the truth is that we've become addicted, neglecting the direction of its impact. For instance, technology is causing education to improve over time or have we just been communicating up with the trend of educational technology. Earlier, technology in education was a debatable topic amongst the society. Everyone have their own negative and positive views on modernizing education with technology. But, gradually as technology was evoked by the educational institutes, they realized the importance of technology in teaching process. And now, with technology, education has changed the living style and it lives us with no doubt that our educational system has been transformed to the ever-advancing technology. Technology and education are a great combination if used together with a right reason and vision. With the help of technology, educators and students have a variety of learning devices at their fingertips.

II. Meaning of Interactive whiteboard:

An interactive whiteboard is a touch-sensitive screen that works in conjunction with a computer and a projector. Or an interactive whiteboard (IWB) is a large interactive display

that connects to a computer. A projector plans the computer's desktop onto the board's surface where users control the computer by means of a pen, finger, stylus, or other tool. The board is typically mounted to a wall or floor stand. They are used in a range of settings, counting classrooms at all levels of education, in corporate board rooms and work groups, in training rooms in favor of professional sports coaching, in broadcasting studios, and others.

III. History of the Interactive Whiteboard:

Nancy Knowlton and her husband David Martin initially came up with an idea as a means of making presentations and classroom actions more interactive. They evolved the smart board as a means of replacing flipcharts, chalkboard and whiteboard. They are known for their innovation that was launched in 1991, the Smart Board. The Smart Board was the first interactive whiteboard. This product permits for touch control on a whiteboard for application being run on a computer that is joined to the Smart board. Their initial research and development was done in the kitchen of their condo in Calgary, Alberta, Canada. This technology obtained precedence due to its interactive properties and has become a design that is used in all types of industries all over the world, including schools. They started from their own home and afforded their way up as they attempted towards their goal. This product was innovative and helped move presentation manufacturing and classroom studying in a more digital and interactive direction. These individuals have won many awards for their subscription to this industry and for their forward thinking innovations.

IV. Components of Interactive Whiteboard:

The hardware components of Interactive Whiteboard comprise the following:

1. Interactive Whiteboard: An Interactive Whiteboard is plainly a surface onto which a computer screen can be displayed, via a projector. It is touch-sensitive and lets use a Pen (Stylus) or Finger on it to act like a mouse, controlling the computer from the board itself. Changes completed to information projected onto the whiteboard are moved to the computer and can be saved and retrieved for future use.
2. Projector: A projector is a device containing a light source, an optics system, and electronics that takes a signal from a computer, VCR, DVD, Camcorder, or other video device and projects a large image onto a wall or screen for viewing by groups.
3. Classroom CPU: The Central Processing Unit (CPU) is the part of a computer that does the majority of the data processing. The CPU and the memory form the central part of a computer to which the peripherals are attached.
4. Server: The server is a computer system that manages and delivers information for teachers PCs.
5. Teacher PC: Teacher PC is a personal computer meant to be used by the teacher to store, transmit and beam learning materials in the class. Everything that can be displayed on a computer can be projected onto the whiteboard and, if the computer is attached to speakers and a DVD or video player, multimedia resources can be integrated too. If the board is connected to the Internet, teachers can have immediate access to appropriate websites to enhance work in the lesson.
6. UPS: An uninterruptible power supply (UPS) is a device that allows a computer to keep running for at least a little time when the primary power source is lost. It also provides protection from power surges.

V. Need and importance of the study:

Interactive whiteboards are an effective way to interact with digital content and multimedia in multi-person learning surroundings. It is day to day support and monitoring of usage, manipulating text and images, making notes in digital ink, creating digital lesson activities with templates, images and multimedia, makes learning a pleasant experience for students, lessons and notes can be saved and printed.

Learning activities with an interactive whiteboard may include the following:

- Provision of digital content mapped to schools syllabus
- Preliminary and ongoing training of teachers
- Saving notes for later review by using e-mail, the Web or print
- Viewing websites as a group
- Representing or using software at the front of a room without being tied to a computer
- Writing notes over educational video clips
- Using presentation devices that are included with the white boarding software to enhance learning materials
- Showcasing student presentations
- Improves teacher usefulness and productivity
- Brings abstract and difficult curriculum concepts to life
- Improves academic performance of students
- Enables instant formative assessment of learning outcomes in class.
- Incorporate Interactive Whiteboard activities that generate classroom discussion

VI. Title Of The Study: *"ATTITUDE OF SMART BOARD USING TEACHERS TOWARDS SMART BOARD TEACHING "*

VII. Operational definitions:

Smart Board: Smart board in this study taken as a large, touch-sensitive board which is connected to a digital projector and a computer. The projector exhibits the image from the computer screen on the board. The computer can be controlled by touching the board, either directly or with a special pen. With Smart Board, teachers can teach lessons to the students.

Smart Board Using Teachers: Teachers who are using Smart Board in the classroom for teaching at school level.

VIII. Objectives of the study:

The objectives of the study are

i) To find out the attitudes of smart board using teachers towards smart board teaching and to classify them.
ii) To find out the attitudes of the smart board using teachers towards smart board teaching w.r.t following variables:
a. Gender (Male/Female)
b. Qualification (Graduate/Post Graduate)
c. Subject of Teaching (Language/Arts/Science)

IX. Hypothesis of the study:

- There would be no significant difference between the attitudes of male and female teachers towards smart board teaching.
- There would be no significant difference between the attitudes of graduate and post graduate teachers towards smart board teaching.
- There would be no significant difference between the attitudes of language, arts and science teachers towards smart board teaching.

X. Methodology of the study:

Survey Method was adopted for this study.

XI. Tool, sample and data collection:

For this research 50 smart board using teachers in Warangal District was taken and collected their attitudes through questionnaire. The utility of Interactive Classroom teaching questionnaire was prepared with five point scale by the investigator with 20 statements asking of Strongly Disagree (S.D.A), Disagree (DA), Neutral (N), Agree (A) and Strongly Agree (S.A). We distributed the questionnaire to all Smart Board using teachers and collected after 30 minutes. The collected data was scored as 1 of SDA, 2 of DA, 3 of N, 4 of A and 5 of S.A and then interpreted with Mean, S.D., 't' test and 'f' test through Statistical Package for social sciences (SPSS ver. 20.0) and it explained in the following tables.

XII.Data analysis:

TABLE-1: Classification of teachers according to their attitudes towards smart board teaching:

S.No	Scores of the Attitude	Level	No. of Teachers	% of Attitude
1	1-33	Low	0	0
2	34-67	Moderate	8	16
3	68-100	High	42	84

From the above taxonomy of teachers, we define their attitudes on the basis of above analysis. None of the teachers found in between 0-33 scores of the attitude, 8 teachers are categorized under moderate level in between 34-67 marks, and the remaining 42 teachers fall under the high level. Hence we conclude that smart board classes are improving their teaching higher levels.

TABLE-2: Attitude of Smart Board using Teachers towards Smart Board Teaching:

OPINION	MEAN	% of MEAN	S.D
TEACHERS	78.68	78.68	10.13

From the above table, the smart board classes utilization of teachers mean is 78.68. Henceforth we conclude that the attitude of the teachers using smart board classes is high.

TABLE-3: Attitude of Smart Board using Male & Female Teachers and TGT & PGT towards Smart Board Teaching:

S.No	Variable	Group	Mean	% of Mean	S.D	't' Value
1	Gender	MALE	77.48	77.48	9.04	0.763 N.S
		FEMALE	79.70	79.70	10.87	
2	Qualification	TGT	83.87	83.87	9.27	2.456 S
		PGT	76.46	76.46	9.67	

* Significant at 0.05 Level

The above table explains that the attitudes of smart board using teachers according to their gender wise. The calculated 't' value (0.763) is less than the tabulated 't' value (2.011 at 0.05 level) and the calculated 't' value is not significant. Hence the attitudes of smart board using male and female teachers are not significant at 0.05 levels. Hence the hypothesis is accepted.

And it shows that the attitudes of smart board using teachers according to their qualification wise. The calculated 't' value (2.456) is greater than the tabulated 't' value (2.011 at 0.05 level)

and the calculated 't' value is significant. Hence the opinions of smart board using graduate and post graduate teachers are significant differ each other. Therefore the hypothesis is rejected.

TABLE-4: Comparing the attitudes of Smart Board using Language, Arts and Science Teachers:

DEPARTMENTS	MEAN	% of MEAN	S.D	'f' Value
LANGUAGES	71.18	71.18	11.04	4.940 S
ARTS	83.5	83.5	7.78	
SCIENCES	79.86	79.86	8.90	

* Significant at 0.05 Level

The above table shows that the attitudes of smart board using teachers according to their department wise. The calculated 'f' value (4.940) is greater than the tabulated 'f' value (0.011 at 0.05 levels) and the calculated 'f' value is significant. Hence the opinions of smart board using Arts, Sciences and Languages teachers are significant differ each other. Therefore the hypothesis is rejected.

XIII. Findings:

On the basis of analysis and interpretation of data, the following can be drawn:

- Most of the teachers are interested in utilization of smart board classes.
- The attitudes of teachers towards smart board using are up to 78.68.
- There is no significant difference between the attitudes of Male and Female Teachers towards smart board teaching.
- There is a significant difference between the attitudes of Graduate and Post Graduate Teachers towards smart board teaching.
- There is a significant difference between the attitudes of Language, Arts and Science Teachers towards smart board teaching.

XIV. Educational Implications:

By using smart board classrooms, teachers can teach Whole-class teaching, demonstrating an activity before students begin independent work, introducing and generating excitement about a new topic, writing notes that will be saved and printed or posted to a class website, idea generation and concept-mapping, reviewing and revising at the ending of the day or unit, showing a video and annotating on top of it, teachers can be more supple with their presentation of material, students can be involved in active full-class activities, images and multimedia can be easily incorporated and past work will be easily pulled up and revisited

XV. Suggestions for further Research:

- The sample size can be enlarged to more concrete results.
- The same study can be conducted in the single subject teachers also.
- Similar type of study can be conducted with large sample of teaching.
- Comparative study can be conducted with different subjects.

XVI. Implications:

Smart IWB plays very vital role in academic achievement in all subjects of students from this research. The following are the implications that can be made through this study.

1) Smart IWB classroom help students to a great extent. Students can interact, understand and remember things very easily as these are innovative where visuals have more impact than just reading. So, smart class technology must be enhanced.
2) Smart board help to saving notes for later review by using e-mail, the Web or print
3) It Improves teacher usefulness and productivity and it brings abstract and difficult curriculum concepts to life
4) Smart Board classroom makes learning a pleasant experience for students. It will review and revise at the ending of the day or unit.
5) Students can be involved in active full-class activities and images and multimedia can be easily incorporated
6) Teachers can do more with their full-class lessons using less preparation time on Smart IWB.

XVII. Conclusion:

Interactive whiteboards affect learning in many ways, including raising the level of student engagement in a classroom, motivating students and promoting eagerness for learning. Interactive whiteboards support many different learning styles and are used in a variety of learning surroundings, including those catering to students with hearing and visual impairments. Research also indicates that notes taken on an interactive whiteboard can play a key role in the student review process, leading to higher levels of student attendance. In addition to the observed positive impacts on student learning, research shows that designing lessons approximately interactive whiteboards helps educators streamline their preparation, be more efficient in their Information and Communication Technology (ICT) integration and increase their productivity overall.

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