



TEACHER EDUCATORS PERCEPTION TOWARDS USAGE OF SMART BOARDS

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Abstract:

Technology benefited us in every aspect of our life right from communication to education. New methods of teaching have been introduced which is known as smart board technology. In this aspect the present study holds importance. The objectives of the study were to find whether there is any significant difference in the perception towards usage of smart boards among male and female teacher educators and teacher educators belonging to private and government Institutions. Samples of 150 Teacher educators belonging to B.Ed colleges, Karnataka during the academic year 2024-2025 were selected. Data pertaining to the usage of smart boards were collected through stratified random sampling techniques through survey method. The tool used for the present study was smart board scale developed by Manjunath (2022) was adopted. The researcher visited the B.Ed colleges personally and it order to collect the data. The tools were administered to the selected samples under normal conditions. The separate variance model of t-test was used for testing the hypotheses for the significance of mean difference in the usage of smart boards' scores of various groups was compared. Findings revealed that Male and female teacher educators differ statistically in their perception towards usage of smart boards. Comparing to the mean values of male teacher educators [1.4492] is greater than female teacher educators [1.3870]. Hence male teacher educators have more perception towards usage of smart boards. Teacher educators belonging to government and private Institutions differ statistically in their perception towards usage of smart boards. Comparing to the mean values of teacher educators belonging to Private Institutions (1.4254) is greater than that of teacher educators belonging to government Institutions (1.3886). Hence teacher educators belonging to private Institutions has more perception towards usage of smart boards.

Index words: Teacher Educators, Technology, Smart boards, ICT

Background of the study:

Quality education is an essential requisite in today's competitive environment. Technology has affected us in every aspect. The smart classes is a modernized method of education in Indian education scenario which provides quality education to students by helping them in better concept formation, concept elaboration, improvement in reading skills and academic achievement.

The traditional approach of lecture and note taking has lost its effectiveness as the modern day around education grows. In efforts to grow academically it must be considered that differentiated modalities of teaching and learning are necessary to implement deeper levels of growth and conceptual development. Since every student is not interested in all subject matters. However, it is the responsibility of the education system to employ a variety of opportunities for the students to gain interests, orchestrating academic growth and progression throughout childhood and adolescence. ICT has turned from being a technology of communication and information to a curriculum creation and delivery system for teachers and learners.

Characteristics of Smart boards:

Adaptive learning: Any classroom will always have students of different types of learning abilities in it which often makes it difficult for teacher educators to make sure that all of them understand the concepts. The modern approach of adaptive learning gives students the freedom to learn at their own pace and in the way they are most comfortable with.

Collaborative learning: Learning through collaboration is one of the most effective forms of learning. Teaching and learning in isolation are very restrictive and hinder progress. Learning in groups enhances the scope of learning and develops critical thinking. Collaborative learning activities include collaborative writing, group projects, joint problem solving, debates and more. Collaborative learning redefines traditional student-teacher relationship in the classroom.

Computing devices: Computers are readily available in modern classrooms, since they are essential tools for 21st century students and replace the utilities of pen and paper. They give teachers the opportunity to enhance their lessons and assist them.

Mutual respect: Teacher educators and students should always have respect for each other. As now the role of teacher educators is no longer to be the sage on the stage, students should not forget their value as they will always receive guidance from them. Also, teachers should encourage students to speak with confidence and value their opinions.

Performance-based assessments: Regular performance-based assessments are carried out by teachers through various methods which are not restricted to tests. These can be by conducting quizzes and polls.

Student-centric: In Smart classrooms, teachers play the role of facilitators. They help students think critically. Students discover and master new concepts. Student-centric classroom environments put students' interests first and are focused on each student's needs, abilities and learning styles.

Students take responsibility of their learning: As students are encouraged to actively participate in their own learning, they become responsible for their learning.

Students understand and follow the rules and procedures: The learning environment is carefully planned and well-organized. Class rules, procedures, and notices of upcoming activities are posted in convenient places to help students stay on track. Students are constantly encouraged to remind them of their goals and responsibilities. They follow class routines and understand what they are expected to achieve each day and how they are to go about it.

An attractive classroom environment is needed for such type smart and innovative activities. Smart school class will be more attractive, innovative, student friendly, healthy and more interesting class. In a smart board technology it may possible there to arrange “online classes” by internet. Smart class is a platform for e smart class and online IT class.

Multimedia enabled audio-visual classroom:

Smart Class is a Smart concept for Smart Educators of Smart Schools. “Smart Class” includes Smart Learning Techniques, Smart classroom management, Smart Learning environment and Smart Learning Materials. Internet, projector and other multimedia devices are the main parts of smart classrooms. Smart class is a class of modern age. There are fully multimedia enabled audio-visual classrooms in a smart classroom. It will be quite different than traditional class. In a smart classroom the teacher works as a facilitator in learning.

Objectives:

- To find whether there is any significant difference in the perception of Usage of smart boards among male and female teacher educators
- To find whether there is any significant difference in the perception of Usage of smart boards among teacher educators belonging to private and government Institutions.

Literature Review:

Furkan Bıcak (2019) Investigation of the views of teachers toward the use of smart boards in the teaching and learning process, this study was carried out to determine the teachers' views on the usability of the smart board in the classroom and their needs to adapt it in the teaching process. Case study method was adopted in the study. The study was conducted on 10 different middle school branch teachers who were working at public schools in a northern province of Turkey. As data collection tool, a semi-structured interview form which is used commonly in qualitative research methods was established. The data obtained were evaluated within the context of content and descriptive analysis techniques. The results revealed that although teachers expressed a positive opinion on smart board practices, they stated that they were insufficient in the use of smart boards and that they needed more practice-oriented in-service courses. Depending on the results, some suggestions have been made about smart board applications and seminars to be given to teachers.

Soh Hon Mun; Abdul Halim Abdullah (2017) A review of the use of smart boards in education, Smart boards enable students to learn and explore new concepts using technology to create a more dynamic learning experience. Students become more excited about learning when the smart boards are incorporated into the lesson. Many educators encourage the use of smart boards in teaching and learning. This paper presents a conceptual framework for the use of smart boards among students and teachers derived from an in-depth survey of the literature. The study identified the effects of the smart boards towards students' attitudes and achievement from preschool to high school as well as teachers' acceptance, difficulties, challenges, and perspectives on smart board use. The findings help articulate issues related to smart board implementation in schools and contribute to the development of smart board usage in education.

Cozen Korkmaz, Ismail Cakil (2013) Teachers' difficulties about using smart boards, The purpose of this study is to determine the reasons why teachers do not utilize smart board technology within the teaching-learning process, although they have the necessary means. This is a qualitative study conducted in scanning model where descriptive method was used. A total of 17 teachers constitute the study group. Data of the study were collected by means of an interview form formed of semi structured questions in line with the open-ended question technique. Collected data were evaluated through document review method. At the end of the study it was concluded that: In general, teachers find smart boards useful, but do not utilize them adequately. It was stated by the teachers that the most important reason for this is the fact that they do not know how to use these tools.

Research Methodology:

Samples of 150 Teacher educators belonging to B.Ed colleges, Karnataka during the academic year 2024-2025 were selected. Data pertaining to the usage of smart boards were collected through stratified random sampling techniques through survey method. The tool used for the present study was smart board scale developed by Manjunath (2022) was adopted. The researcher visited the B.Ed colleges personally and in order to collect the data. The tools were administered to the selected samples under normal conditions. The separate variance model of t-test was used for testing the hypotheses for the significance of mean difference in the usage of smart board scores of various groups was compared.

Analysis & Interpretation:

Hypothesis 1: There is no significant difference in the perception of usage of smart boards among male and female teacher educators

Table 1: Showing sample size, Mean, Number, S.D, t-value, level of significance of the perception of usage of smart boards among male and female teacher educators

Variable	Group	N	Mean	SD	t-value	Level of significance
GENDER	Male	51	1.4492	14.608	3.034	* Sig @ 0.01 level
	Female	109	1.3870	10.732		

Table no 1 show that the obtained t-value 3.034 is greater than table t-value of 1.960 for the degrees of freedom 158 at 0.01 level. Thus the null hypothesis is rejected and alternative hypothesis is accepted and hence it is concluded that male and female teacher educators differ statistically in their perception of usage of smart boards. Comparing to the mean values of male teacher educators [1.4492] is greater than female teacher educators [1.3870]. Hence male teacher educators have more perception towards usage of smart boards.

Hypothesis no 2. There is no significant difference in the perception of usage of smart boards among teacher educators belonging to private and government Institutions.

Table no: 2 shows N, Mean, Sd, t-value level of significance of perception of usage of smart boards among teacher educators belonging to private and government Institutions.

Variable	Group	N	Mean	SD	t-value	Level of significance
Type of Institutions	Govt	79	1.3886	9.0066	1.992	* Sig @ 0.05 level
	Private	81	1.4254	14.946		

Table no: 2 shows that obtained t-value 1.992 is greater than the table t-value 1.960 for the degrees of freedom 158 at 0.05 level thus the null hypothesis is accepted and hence it is concluded that teacher educators belonging to government and private Institutions differ statistically in their perception towards usage of smart boards. Comparing to the mean values of teacher educators belonging to Private Institutions (1.4254) is greater than that of teacher educators belonging to government Institutions (1.3886). Hence teacher educators belonging to private Institutions has more perception towards usage of smart boards.

Results / Findings:

- Male and female teacher educators differ statistically in their perception of usage of smart boards. Comparing to the mean values of male teacher educators [1.4492] is greater than female teacher educators [1.3870]. Hence male teacher educators have more perception towards usage of smart boards.
- Teacher educators belonging to government and private Institutions differ statistically in their perception towards usage of smart boards. Comparing to the mean values of teacher educators belonging to Private Institutions (1.4254) is greater than that of teacher educators belonging to government Institutions (1.3886). Hence teacher educators belonging to private Institutions has more perception towards usage of smart boards.

Discussion & Suggestions:

Nearly all of the teacher educators had positive opinions about smart boards. It is pleasing that teacher educators have positive perspectives towards technological materials. As a matter of fact, most of the studies carried out emphasize the positive outcomes of integrating smart boards into classroom environments (Kaya, 2013; Kennewel, 2006).

Many studies in the literature have examined the effects of smart boards on affective factors and some of them reported the contribution of smart boards to the students' motivation (e.g. Akbaş & Pektaş, 2011; Kennewell & Beauchamp, 2007; Torff & Tirota, 2010), interest (e.g. Onder & Aydin, 2016; Sevim & Sayir, 2017) and their engagement (Jelyani, Janfaza, & Soori, 2014). Teacher educators stated that the use of smart boards in classrooms would increase the motivation of students and increase their involvement and participation. Some study results in the literature also indicate that the courses given to teachers are more in theoretical content and therefore do not attract teachers' attention (Keleş & Çelik, 2013). The effects of the use of materials in classroom environment on teachers' classroom management were examined by many researchers. Şahin (2015) collected data from 512 teachers, and according to the results, teachers have partially agreed that the use of materials in classrooms will help preventing the disciplinary problems and help facilitating classroom management. Similarly, teacher educators think that the use of smart boards in classrooms will facilitate classroom management. Finally, teachers' opinions on the relationship between education and technology have also provided some evidences about teacher educators' view on smart boards. First of all, teachers' positive outlook on the use of technology in the educational environment can be interpreted as an indicator of their positive attitude and belief towards smart boards. Considering the effect of teachers' beliefs on their teaching (Çelik et al., 2018), it can be said that the results will have positive effects on teaching activities. Smart board seminars need to be increased. In this respect, it is considered that seminars or in-service courses that may give more practical opportunities to teachers are required. Not only smart boards, but teacher Educators need support courses to deepen their technological infrastructure.

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