



PERCEPTIONS OF SECONDARY SCHOOL TEACHERS OF EAST GODAVARI DISTRICT ON CHALLENGES IN USING INTERACTIVE FLAT PANEL (IFP) IN CLASSROOM TEACHING

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ABSTRACT:

This study explores secondary school teachers' perceptions in East Godavari District regarding their challenges when using interactive flat panels in classroom teaching. The research delves into the various issues and obstacles teachers encounter as they incorporate this technology into their pedagogy. By examining the teachers' perspectives, this article sheds light on the practical difficulties and concerns of using interactive flat panels in educational settings. Ultimately, the findings of this study provide valuable insights for educators, administrators, and policymakers seeking to enhance the integration of interactive technology in the classroom.



KEYWORDS: *Perceptions, Secondary School Teacher's Challenges, Interactive Flat Panel (IFP) Classroom Teaching.*

INTRODUCTION:

Information and Communication Technology (ICT) refers to the diverse technological tools and resources used to communicate, create, disseminate, store, and manage information. These technologies include computers, the internet, broadcasting technologies (radio and television), and telephony. In education, ICT has the potential to increase access to learning opportunities, improve the quality of education, and enhance educational practices. The integration of ICT in the teaching and learning process can transform education by making it more accessible, engaging, and effective. However, careful planning, ongoing support, and equitable resource access are required to realise its full benefits.

An interactive flat panel (IFPD) is a large touchscreen display designed for collaboration in meeting rooms and other collaborative spaces. IFPDs are becoming more popular in business and educational settings because they can improve engagement, productivity, and collaboration. IFPDs have high-quality displays, enhanced connectivity, and built-in software solutions. They also have zero bonding technology, eliminating the gap between the touch sensors and the display surface, resulting in a more precise touch response.

Interactive flat panels have become increasingly prevalent in high school education, revolutionising the way content is delivered and engaged with by students. These high-resolution, touch-sensitive screens offer teachers innovative ways to present material and foster interactive and

collaborative learning environments. However, while their benefits are substantial, the integration of interactive flat panels in teaching brings its own set of challenges and issues. This article delves into these aspects, offering insights into the potential and the hurdles associated with these modern teaching tools.

Challenges in using Interactive Flat Panel (IFP) in Classroom Teaching:

1. Technological Integration

Infrastructure Requirements: Deploying interactive flat panels requires schools to have the necessary I.T. infrastructure, including adequate internet bandwidth and compatibility with existing systems.

High Initial Costs: The acquisition cost of interactive flat panels can be prohibitive for many schools, especially when considering the need for multiple units to equip classrooms adequately.

Maintenance and Upkeep: Given their sophistication, these panels necessitate regular maintenance and occasional repairs, which could strain a school's budget and resources.

2. Teacher Training and Adaptation

Professional Development: Effective use of interactive flat panels requires teachers to undergo professional development. However, time constraints and the quality of training provided can vary significantly.

Resistance to Change: Some educators may need more support to integrate new technology into their teaching methods due to comfort with traditional teaching means or scepticism about the effectiveness of such technology.

3. Student Engagement and Learning Outcomes

Distraction: While interactive flat panels can make lessons more engaging, they also have the potential to distract students if not used judiciously.

Equity of Access: Ensuring that all students can equally participate and benefit from lessons involving interactive flat panels can be challenging, particularly in classrooms with diverse learning needs.

4. Pedagogical Adjustment

Curricular Integration: Teachers need to meaningfully integrate technology into their curriculum, which requires a good understanding of both the subject matter and the technology.

Assessment and Feedback: Adapting assessment methods to incorporate or reflect interactive technology in learning is necessary but can be complex.

5. Improvement and Innovation

Keeping Up with Updates: Technology evolves rapidly, and updating interactive flat panels with the latest software can be challenging.

Innovative Uses: Leveraging the full potential of interactive flat panels requires constant innovation in teaching practices, which demands creativity and time from educators.

6. Solutions and Strategies

Addressing the challenges associated with the use of interactive flat panels in teaching involves several strategic approaches:

Funding and Grants: Schools should seek grants, partnerships, and other funding opportunities to offset the costs of acquiring and maintaining these systems.

Comprehensive Training Programs: Investing in ongoing professional development for teachers ensures they can use interactive flat panels effectively.

Curriculum Development: Developing curricula that integrate technology meaningfully can enhance learning outcomes and engagement.

Policy and Planning: Establishing clear policies and plans for implementing and using technology in the classroom can aid in overcoming resistance and ensuring effective use.

Significance of the study:

The significance of this study lies in its exploration of the real-world obstacles the teachers face when integrating technology like IFPs into their classroom teaching. By examining the teachers' perspectives, the study shed light on the practical, pedagogical, and infrastructural barriers that hinder

the effective utilisation of IFutilisationrooms. Understanding these challenges is crucial for devising targeted support mechanisms and training programs that can empower teachers to harness the full potential of interactive technology.

Additionally, the study's findings may inform policy decisions and resource allocation aimed at addressing the specific needs of educators in East Godavari district. By amplifying the voices of teachers and elevating their concerns, the study contributes to a more comprehensive understanding of the complex dynamics surrounding integration.

Statement of the Problem:

“Perceptions of Secondary School Teachers of East Godavari District on Challenges in Using Interactive Flat Panel (IEP) In Classroom Teaching”

Objectives of the Study:

Objective 1: To study the attitude of the teachers towards the use of Interactive Flat Panels in teaching.

Objective2: To identify the perceived challenges in using Interactive Flat Panels in classroom teaching in secondary schools.

The hypothesis of the study:

Hypothesis 1: There is no statistically significant difference in the attitudes of Science and Arts stream teachers towards using Interactive Flat Panels (IFP) in classroom teaching."

Method of the Study:

Research methodology implies the technique adopted by the investigator for conducting the study and the logic behind using such a technique. In the present study, the investigator adopted a descriptive survey method.

Sample, sampling technique:

A simple random sampling technique has been adopted, and the researcher selected 22 High Schools of East Godavari district District. Again, the researcher approached the stratified random sampling technique to select the teacher sample. Accordingly, 260 teachers (160 Arts and 100 Science) of Secondary Schools of East Godavari District constitute the study sample.

Tools Used:

The researcher prepared a self-structured questionnaire (3-point rating scale) for data collection and standardised the procedure.

Statistical techniques used:

In order to find out the significant difference between the mean scores of teachers from the Science and Arts streams, the researcher used the Z-test. Since objective 2 pertains to status finding, descriptive statistical analyses have been performed regarding percentages.

Administration of tool and data collection:

The required data were collected from secondary school teachers in the identified schools through self-structured and standardised questionnaires. The researcher has visited the schools, analysed the purpose and significance of the study, and administered the test. While administering the test, the researcher requested the recipients to respond to the questionnaire items with utmost sincerity as the research findings help the teaching community and offer qualitative education to the students of the secondary schools of A.P.

Data analyses and results:

Using pre-determined statistical techniques, the researcher analysed objectivanalyseedata and systematically presented the result as shown under:

Objective 1: To study the attitude of the teachers towards the use of Interactive Flat Panels in teaching.

Hypothesis 1: There exists no significant difference between the Science and Arts stream teachers' attitude towards the use of Interactive Flat Panels in classroom teaching.

The researcher calculated 'Z' tests to determine the significant difference between the mean scores of Science and Arts stream teachers' attitudes towards using Interactive Flat Panels in teaching.

Table 1: 'Z' value of Science and Arts stream teachers' attitude towards using Interactive Flat Panels in classroom teaching.

Stream	N	Mean	S.D.	S E D	Z value	Remarks
Science	100	32.43	11.7	1.71	0.61	Accepted the Hypothesis
Arts	160	31.38	10.2			

From the above table, the -1 Z value is 0.61, smaller than the critical Z value, i.e. 2.58, at a 1% confidence level. Hence, it is significant at a 0.01% level of confidence. Therefore, the hypothesis states, "There exists no significant difference between the Science and Arts stream teachers' attitude towards using Interactive Flat Panels in classroom teaching" is accepted. So, Science and Arts stream teachers have the same attitude towards using Interactive Flat Panels in classroom teaching.

Objective 2:

To identify the perceived challenges in using Interactive Flat Panels in classroom teaching in secondary schools.

Since objective 2 pertains to status finding, descriptive statistical analyses have been performed regarding percentages.

Problems identified by the teachers concerning the use of Interactive Flat Panels in classroom teaching in secondary schools are as follows:

1. Non -availability
2. Lack of skill
3. Shortage of time
4. Negative attitude
5. Lack of proper training
6. Maintenance problem

1. Non-availability:

Proper Internet facility: YES – 90 NO – 170

% of YES response – 34.6%

Lack of uninterrupted power supply: YES – 70 NO – 190

% of YES response – 26.9%

Average Percentage: 30.75%

2. Lack of skill:

Lack of skill to browse the content and use of notes: YES – 100 NO – 160

% of YES response – 38.4%

Lack of skill in operating the IFP panel: YES – 110 NO – 150

% of YES response – 42.3%

Average Percentage: 40.35%

3. Shortage of Time:

Regular class work is not enough: YES – 41 NO – 219

% of YES response – 15.7%

Additional burden on teacher: YES – 60 NO – 200

% of YES responses – 23.07%

Average Percentage: 19.38%

4. Negative Attitude:

Attitude of Traditional Teaching: YES – 60 NO – 200

% of YES responses – 23.07%

Lack of Interest: YES – 80 NO – 180

% of YES response – 30.7%

Lack of faith in Technology: YES – 70 NO – 190

% of YES response – 26.9%

Average Percentage: 26.89%

5. Lack of Proper Training:

Lack of proper training on technology integration: YES – 210 NO – 50

% of YES response – 80.76%

Lack of adequate training on the use of IFP: YES – 220 NO – 40

% of YES response – 84.6%

Average Percentage: 82.68%

6. Maintenance Problem:

Unavailability of technical personals: YES – 220 NO – 40

% of YES response – 84.6%

Lack of proper storage facility: YES – 210 NO – 50

% of YES response – 80.76%

Average Percentage: 82.68%

Analysis:

From the above percentages obtained from the teachers' perceptions, 82.68% of teachers expressed their opinions that the major challenge in using IFPs in classroom teaching is 'lack of proper training' and 'maintenance problem'. It has also been identified that 40.35% of teachers expressed that lacking skills is challenging. Further, 30.75% of teachers expressed 'non-availability', 26.9% 'negative attitude' and 19.38% 'lack of time' as their opinions.

DISCUSSION:

The present study has revealed no significant difference between the Science and Arts stream teachers' attitudes towards using Interactive Flat.

Panels in classroom teaching. The perceptions of the teachers of secondary schools in the east Godavari district reveal that the lack of proper training and maintenance problems are the severe challenges in using interactive flat panels in classroom teaching in secondary schools. Lack of skill is a moderate challenge, and lack of time is negligible.

Recommendations and Suggestions:

In a situation like this, based on the observations and opinions of the working teachers, I would recommend the following suggestions for the study on the perceptions of secondary school teachers in East Godavari district regarding the challenges of using interactive flat panels:

1. Training Initiatives: Implement targeted training programs tailored to address the lack of proper training identified as a significant challenge. These programs should be comprehensive, practical, and ongoing, ensuring teachers feel equipped and confident in effectively leveraging the technology.

2. Maintenance Support: Establish a proactive maintenance and technical support framework to address the issues related to the maintenance of interactive flat panels. This could involve collaborating with technology providers or dedicated support teams to resolve maintenance problems and swiftly minimise classroom activity disruption.

3. Teacher Feedback Mechanism: Create a structured feedback mechanism that empowers teachers to voice their concerns, share experiences, and provide insights regarding using interactive flat panels. This feedback loop can inform continuous improvements in training methods, maintenance protocols, and the overall integration of technology in teaching practices.

4. Peer Learning Networks: Foster a culture of peer learning and collaboration among teachers within the district. Encouraging knowledge sharing and best practice exchanges related to the effective use of interactive flat panels can be invaluable in overcoming challenges, building confidence, and promoting collective problem-solving.

5. Resource Allocation: Advocate for targeted resource allocation to address the identified challenges. This could involve mobilising resourmobilisingstained professional development, establishing maintenance protocols, and investing in infrastructure supporting interactive flat panels' seamless functioning.

CONCLUSION:

Interactive flat panels hold significant promise for enhancing teaching and learning in high schools. However, to fully harness these benefits, schools must thoughtfully navigate the challenges related to their integration. This involves strategic planning, investment in teacher training, curriculum development, and ensuring equity of access for all students. With these measures in place, interactive flat panels can be powerful tools for creating engaging, interactive, and effective learning environments.

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