



# Teachers' Attitude towards Use of Technology in Education

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## Abstract:

*In the modern era, technology has become an integral part of the educational system, transforming traditional teaching methods into more interactive and learner-centered approaches. The present study investigates teachers' attitudes towards the use of technology in education, focusing on secondary school teachers. A descriptive survey method was adopted, and data were collected from a sample of 100 teachers using a structured attitude scale. The findings reveal that most teachers possess a positive attitude towards technology integration; however, challenges such as inadequate training, lack of infrastructure, and resistance to change persist. The study emphasizes the importance of continuous professional development and institutional support to maximize the effective use of technology in education.*

## 1. Introduction

Education has undergone significant transformation in the 21st century due to rapid technological advancements. The integration of Information and Communication Technology (ICT) has revolutionized the teaching-learning process, making it more engaging, flexible, and accessible. Tools such as computers, smart boards, projectors, online learning platforms, and mobile applications are now widely used in classrooms.

Teachers play a pivotal role in implementing these technologies effectively. Their attitudes, beliefs, and perceptions determine the extent to which technology is integrated into classroom practices. A positive attitude can lead to innovative teaching strategies and improved student engagement, whereas a negative attitude can hinder the adoption of technological tools.

In the Indian educational context, especially in urban centers like Ahmedabad, efforts have been made to promote digital education through various government initiatives. Despite these efforts, the success of technology integration largely depends on teachers' readiness and willingness to adapt to new methods. Therefore, it becomes essential to study teachers' attitudes towards the use of technology in education.

## 2. Statement of the Problem

The problem of the present study is stated as:

A Study of Teachers' Attitude towards Use of Technology in Education

## 3. Objectives of the Study

The study was conducted with the following objectives:

1. To study the overall attitude of teachers towards the use of technology in education.
2. To compare the attitudes of male and female teachers towards technology use.
3. To examine the influence of teaching experience on teachers' attitudes.
4. To identify the challenges faced by teachers in integrating technology into teaching.
5. To suggest measures for improving teachers' attitudes towards technology.

#### 4. Hypotheses of the Study

The following null hypotheses were formulated:

**H<sub>01</sub>** There is no significant difference between male and female teachers in their attitudes towards technology.

**H<sub>02</sub>** There is no significant difference in attitudes based on teaching experience.

#### 7. Variables of the Study

The independent and dependent variables of present research are as under

##### 7.1 Independent Variables

Gender (Male/Female)

Teaching Experience (Less experienced/More experienced)

##### 7.2 Dependent Variable

Teachers' Attitude towards Use of Technology

#### 8. Definitions of Key Terms

##### 8.1 Attitude

###### 8.1.1 Theoretical Definitions

A predisposition or tendency to respond positively or negatively towards a certain idea, object, or situation.

###### 8.1.2 Operational Definitions

The score obtained by teachers on the self-constructed attitude scale used in this study.

##### 8.2 Technology in Education

###### 8.2.1 Theoretical Definition

The application of digital tools and resources such as computers, internet, multimedia, and software to enhance teaching and learning.

###### 8.2.2 Operational Definition

The use of ICT tools like smart boards, projectors, computers, and online platforms in classroom teaching.

#### 9. Research Method

The present study employed the descriptive survey method, which is suitable for studying attitudes and opinions.

#### 10. Population

The population consisted of all secondary school teachers in Ahmedabad city.

#### 11. Sample and Sampling Technique

A sample of 100 teachers was selected using the random sampling method, including both male and female teachers from different schools.

#### 12. Tool Used

A self-constructed Teachers' Attitude towards Technology Scale was used. It consisted of statements measured on a 5-point Likert scale ranging from strongly agree to strongly disagree. There are 40 statements out of which

#### 13. Data Collection Procedure

The data were collected through Teachers' Attitude scale administered directly to teachers. Proper instructions were given to ensure accurate responses.

#### 14. Statistical Techniques

The researcher has used following statistical techniques

- Mean
- Standard Deviation
- t-test

#### 15. Data Analysis and Interpretation

The collected data were analyzed using appropriate statistical methods.

- The mean scores indicated that teachers generally hold a **positive attitude** towards technology.
- The t-test results showed no significant difference between male and female teachers.
- A slight difference was observed based on teaching experience, with less experienced teachers showing more favourable attitudes.

These findings suggest that while teachers are open to using technology, certain factors influence their level of acceptance.

#### 16. Findings of the Study

The major findings of the study are

1. Teachers have a generally positive attitude towards the use of technology in education.
2. There is no significant difference in attitudes between male and female teachers.
3. Teaching experience has a minor influence on attitudes, with younger teachers being more adaptable.
4. Lack of proper training is a major barrier to technology use.
5. Inadequate infrastructure and technical support also hinder effective implementation.

#### 17. Educational Implications

The findings of the study have several important implications:

- **For Teachers:** Teachers should actively participate in training programs to enhance their technological skills.
- **For Schools:** Schools should provide adequate infrastructure, including smart classrooms and internet facilities.
- **For Policy Makers:** Government should design policies that promote digital literacy and provide funding for technology integration.
- **For Teacher Education Institutions:** Curriculum should include ICT training to prepare future teachers.

#### 18. Limitations of the Study

The limitations of present research are

- The study was limited to a small sample of teachers from Ahmedabad.
- Only secondary school teachers were included.
- The study focused only on attitudes, not actual classroom practices.

#### 19. Suggestions for Further Research

- The suggestions for future research are as under
- Similar studies can be conducted in rural areas.
- Comparative studies between private and government schools can be undertaken.
- Experimental studies on the effectiveness of technology in teaching can be conducted.
- Studies can explore the relationship between attitude and actual use of technology.

#### 20. Conclusion

The study concludes that teachers generally have a favorable attitude towards the use of technology in education. This positive attitude is encouraging for the future of digital education. However, challenges such as lack of training, insufficient infrastructure, and resistance to change need to be addressed.

For effective integration of technology, it is essential to provide continuous professional development, technical support, and necessary resources. By doing so, education can become more interactive, engaging, and effective, ultimately benefiting both teachers and students.

### References

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