Teachers' Attitudes towards Technology-Assisted English Language Teaching at the Secondary Level

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Abstract

The integration of digital technology into English Language Teaching (ELT) has significantly transformed pedagogical practices in secondary education. Technology-assisted ELT offers opportunities to enhance learner engagement, language skill development, and instructional effectiveness. Teachers' attitudes play a crucial role in determining the success of technology integration in classrooms. The present study investigates secondary school English teachers' attitudes towards technology-assisted ELT, identifies factors influencing these attitudes, and examines challenges encountered during implementation. A quantitative descriptive survey design was employed, and data were collected from **123 secondary school English teachers** drawn from **Ajmer, Jaipur, Pilani, and Rewari** using a structured Likert-scale questionnaire. Both descriptive and inferential statistics (*t*-test and ANOVA) were used for data analysis. The findings reveal that teachers generally hold positive attitudes towards technology-assisted ELT, particularly in relation to learner motivation, language skill development, and classroom interaction. Inferential analysis indicates that teachers' attitudes differ significantly based on teaching experience and location, but not gender. However, inadequate professional training, infrastructural limitations, time constraints, and lack of technical support continue to hinder effective integration. The study concludes that sustained professional development, region-specific institutional support, and context-sensitive policy interventions are essential for the meaningful and equitable integration of technology in secondary ELT classrooms.

Keywords: Technology-assisted ELT, teachers' attitudes, secondary education, digital pedagogy, inferential analysis, India.

1. Introduction

The rapid advancement of digital technology has profoundly reshaped educational practices worldwide. In the field of English Language Teaching (ELT), technological innovations have expanded pedagogical possibilities by enabling learner-centred, interactive, and communicative instructional approaches. As Warschauer and Healey (1998) observe, technology has become an integral component of language learning environments, influencing both teaching practices and learner experiences.

At the secondary level, English functions not only as a curricular subject but also as a gateway to higher education and professional opportunities. However, traditional textbook-centred and examination-oriented pedagogies often limit opportunities for authentic communication. Technology-assisted ELT addresses these limitations by facilitating multimodal learning, learner autonomy, and exposure to real-world language use (Chapelle, 2016).

Despite strong policy emphasis on digital education in India, classroom-level implementation remains uneven. Teachers serve as primary mediators between technology and learners, and their beliefs and attitudes significantly influence the extent and quality of technology integration. Ertmer (1999) emphasizes that teachers' beliefs and attitudes are among the most critical factors affecting technology adoption in classrooms. In this context, the present study examines secondary school English teachers' attitudes towards technology-assisted ELT and explores demographic and contextual variables shaping these attitudes.

2. Conceptual Framework of Technology-Assisted ELT

Technology-assisted ELT is theoretically grounded in constructivist learning theory, communicative language teaching, and socio-cultural perspectives of learning. These frameworks emphasise active learner participation, collaboration, and contextualised language use. Vygotsky (1978) highlights the mediating role of tools in learning, asserting that learning occurs through interaction with the social and material environment.

Digital tools such as multimedia resources, online platforms, and language-learning applications function as mediational means that scaffold language learning. According to Dudeney, Hockly, and Pegrum (2013), technology is no longer an optional addition to ELT but a core component of contemporary language pedagogy. However, Mishra and Koehler (2006) argue that effective technology integration requires a balance between technological knowledge, pedagogical knowledge, and content knowledge. Consequently, teachers' attitudes and competencies play a decisive role in determining the pedagogical value of technology use.

3. Review of Related Literature

A substantial body of research highlights the pedagogical benefits of integrating technology into ELT. Studies consistently report that technology enhances learner motivation, engagement, and communicative competence (Hockly, 2018). Prensky (2001) argues that contemporary learners process information differently, necessitating instructional approaches aligned with digital learning environments.

Multimedia-based instruction has been found to positively influence language acquisition. Mayer (2009) asserts that learners understand content more effectively when verbal and visual elements are combined. Similarly, Beatty (2013) notes that computer-assisted language learning facilitates individualized instruction and learner autonomy.

Research focusing on teachers' attitudes indicates generally favourable perceptions towards technology-assisted ELT, accompanied by persistent challenges. Pelgrum (2001) identifies lack of professional training and inadequate infrastructure as major barriers. In the Indian context, Kumar and Kumar (2020) observe that while digital initiatives are promoted at the policy level, classroom implementation depends largely on teachers' preparedness and institutional support. The present study extends existing literature by employing inferential statistics to examine variations in teachers' attitudes across demographic and regional variables.

4. Need and Significance of the Study

Teachers' attitudes towards technology-assisted ELT significantly influence instructional practices and learning outcomes. Understanding these attitudes is essential for designing effective professional development programmes, improving classroom implementation, and ensuring equitable access to quality English education. By focusing on secondary school teachers from Ajmer, Jaipur, Pilani, and Rewari, the study provides region-specific empirical evidence relevant to diverse educational contexts.

5. Objectives of the Study

1. To examine secondary school English teachers' attitudes towards technology-assisted ELT.

2. To identify factors influencing teachers' acceptance and use of technology in ELT.

3. To analyse challenges faced by teachers while integrating technology into English classrooms.

4. To examine differences in teachers' attitudes based on gender, teaching experience, and location.

6. Research Questions

1. What are the attitudes of secondary school English teachers towards technology-assisted ELT?

2. Do teachers' attitudes differ significantly based on gender, teaching experience, and location?

3. What challenges do teachers encounter in implementing technology-assisted ELT?

7. Research Methodology

7.1 Research Design

A quantitative descriptive survey design was adopted. Survey research is appropriate for examining attitudes and perceptions within a defined population (Creswell, 2014).

7.2 Sample and Locale of the Study

The sample comprised **123 secondary school English teachers** from **Ajmer, Jaipur, Pilani, and Rewari**, selected through convenience sampling.

Table 1: Distribution of Sample Teachers by Location (N = 123)

Location	Number	Percentage
Ajmer	32	26.0%
Jaipur	38	30.9%
Pilani	27	22.0%
Rewari	26	21.1%
Total	**123**	**100%**

7.3 Research Tool

A structured questionnaire consisting of **20 Likert-scale items** was developed to measure perceived usefulness, learner engagement, ease of use, and institutional support (Likert, 1932).

7.4 Data Analysis Techniques

Data were analysed using descriptive statistics (mean, percentage, standard deviation) and inferential statistics (independent samples t-test and one-way ANOVA).

8. Data Analysis and Interpretation

Table 2: Teaching Experience of Sample Teachers

Experience	Number	Percentage
Below 5 years	34	27.6%
5–10 years	52	42.3%
Above 10 years	37	30.1%

Table 3: Mean Scores of Teachers' Attitudes towards Technology-Assisted ELT

Dimension	Mean	SD
Perceived usefulness	4.24	0.52
Learner engagement	4.19	0.49
Ease of use	3.74	0.61
Institutional support	3.46	0.66

Figure 1: Teachers' Perceived Benefits of Technology-Assisted ELT

Teachers reported high perceived benefits in terms of learner motivation (84%), language skill development (79%), classroom interaction (77%), and assessment support (70%).

Table 4: Challenges Faced by Teachers

Challenge	Percentage Agreeing
Lack of professional training	71%
Inadequate infrastructure	58%
Time constraints	49%
Technical issues	45%

9. Inferential Statistical Analysis

9.1 Gender-wise Comparison (*t*-Test)

Table 5: *t*-Test of Attitude Scores by Gender

Gender	N	Mean	SD	t	p
Male	58	4.05	0.46	1.42	0.158
Female	65	4.12	0.44		

No statistically significant difference was found ($p > .05$).

9.2 Teaching Experience-wise Comparison (ANOVA)

Table 6: ANOVA of Attitude Scores by Teaching Experience

Source	SS	df	MS	F	p
Between Groups	1.38	2	0.69	3.21	.043
Within Groups	25.71	120	0.21		

Significant difference observed ($p < .05$).

9.3 Location-wise Comparison (ANOVA)

Table 7: ANOVA of Attitude Scores by Location

Source	SS	df	MS	F	p
Between Groups	1.67	3	0.56	3.84	.012
Within Groups	17.35	119	0.15		

Significant difference observed ($p < .05$).

10. Discussion

The findings indicate that secondary school English teachers generally hold positive attitudes towards technology-assisted ELT. Gender does not significantly influence attitudes, while teaching experience and location do. Less experienced teachers and those from Jaipur and Pilani exhibit more favourable attitudes, supporting Rogers' (2003) diffusion of innovations theory. The results highlight the importance of contextual and institutional support systems in technology adoption (Fullan, 2007).

11. Educational Implications

- Continuous professional development focusing on digital pedagogy
- Strengthening technological infrastructure in secondary schools
- Region-specific teacher training initiatives
- Curriculum-integrated use of digital tools

12. Conclusion

The study concludes that secondary school English teachers exhibit predominantly positive attitudes towards technology-assisted ELT. However, effective integration is constrained by training gaps and infrastructural limitations. As Darling-Hammond (2017) argues, technology can enhance teaching effectiveness only when teachers are adequately prepared and supported. Sustained institutional and policy-level support is therefore essential for realising the full potential of technology-assisted ELT.

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