ATTITUDE TOWARDS E-LEARNING AMONG SECONDARY SCHOOL STUDENTS IN MADURAI DISTRICT

Dr. S. Anbalagan
Assistant Professor of Mathematics
Thiagarajar College of Preceptors, Madurai
DOI: https://doi.org/10.34293/eduspectra.v6i2.03

Abstract

This study investigates the attitudes of secondary school students in Madurai district towards e-learning, focusing on how these attitudes vary across different demographics. Employing a quantitative research approach, data were gathered from 300 students through structured questionnaires. The study examines variations in attitudes based on three key factors: gender, locality (rural versus urban), and medium of instruction (Tamil versus English). Analysis reveals significant differences in students' perceptions, indicating that attitudes towards e-learning are influenced by these demographic factors. The findings underscore the importance of developing targeted e-learning strategies to improve student engagement and effectiveness. These insights are intended to guide educational practices and inform policy enhancements to better address the diverse needs of students in the digital learning environment.
***Keywords**: E-Learning, Student Attitudes, Madurai District and Digital Education*

Introduction

E-learning has transformed modern education by integrating digital technology to enhance teaching and learning experiences. This approach offers flexibility and accessibility, overcoming the limitations of traditional classrooms (Selwyn, 2016). Understanding secondary school students' attitudes towards e-learning in specific regions, such as Madurai district, is essential for optimizing its effectiveness and addressing potential challenges.

Definition and Meaning of E-learning

Definition: E-learning, or electronic learning, is defined as the use of digital tools and platforms to deliver and facilitate educational content and learning processes, including online courses and virtual classrooms (Sun & Chen, 2016).

Meaning: E-learning encompasses various forms of digital education that allow students to access educational materials and engage in learning activities from any location and at their own pace. This method utilizes electronic media such as video lectures, interactive simulations, and online assessments (Jung & Lee, 2018).

Need and Significance of the Study

Evaluating students' attitudes towards e-learning is crucial as digital technologies become integral to education. Insights into these attitudes can help identify

barriers and challenges, ensuring that e-learning solutions are effectively tailored to students' needs (Smith & Jones, 2017). This study provides valuable information about the perceptions of secondary school students in Madurai district regarding e-learning. The findings can guide educators and policymakers in improving e-learning practices to enhance student engagement, learning outcomes, and overall satisfaction (Selwyn, 2016).

Statement of the Problem

The study aims to investigate the attitudes of secondary school students in Madurai district towards e-learning. It will explore whether significant differences in attitudes exist based on gender, locality (rural or urban), and medium of instruction.

Definition of Terms

- **E-learning**: The use of electronic technologies and online platforms to deliver and facilitate educational content and learning activities
- **Attitude**: A student's overall perspective or feelings towards e-learning, including their level of acceptance and engagement
- **Medium of Instruction**: The language or method used for teaching, which may be Tamil or English in this study
- **Rural and Urban Localities**: Geographic distinctions with rural areas being outside major city centers and urban areas within city limits.

Objective

To assess the level of attitude towards e-learning among secondary school students in Madurai district.

Hypotheses

1. **Null Hypothesis 1**: There is no significant difference between male and female secondary school students in their attitude towards e-learning in Madurai district.
2. **Null Hypothesis 2**: There is no significant difference between rural and urban secondary school students in Madurai district in their attitude towards e-learning.
3. **Null Hypothesis 3**: There is no significant difference between Tamil and English medium secondary school students in Madurai district in their attitude towards e-learning.

Methodology

This study uses a quantitative research design, employing survey methods to evaluate students' attitudes towards e-learning. Data were collected using structured questionnaires distributed to secondary school students in Madurai district.

Population

The population includes secondary school students from various schools across Madurai district, encompassing both urban and rural areas.

Sample

The sample consists of 300 secondary school students selected randomly from different schools in Madurai district, representing a mix of genders, localities (rural and urban), and mediums of instruction (Tamil and English).

Tool

The primary tool for data collection is a structured questionnaire designed to measure attitudes towards e-learning. The questionnaire includes various questions related to students' experiences and perceptions of e-learning.

Attitude towards e-learning

Percentage Wise Analysis

Objective:1

To find out the level of attitude towards e-learning of secondary school students.

Table No 1 Level of Attitude Towards E-Learning of Secondary School Students

Low		Moderate		High	
Count	**%**	**Count**	**%**	**Count**	**%**
147	49.0	86	28.7	67	22.3

It is inferred from the above table that49.0% of secondary school students have low, 28.7% of them have moderate and 22.3% of them have high level of secondary school students.

Null Hypothesis: 1

There is no significant difference between male and female secondary school students in their attitude towards e-learning.

Table No 2 Difference between Male and Female Secondary School Students in their Attitude Towards E-Learning

Gender	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Male	131	136.557	14.7706	3.691	**S**
Female	169	141.580	8.5764		

(At 5% level of significance, for df 298, the table value of 't' is1.96)

It is inferred from the above table that calculated 't' value (3.691) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null

hypothesis is rejected. It shows that there is no significant difference between male and female secondary school students in their attitude towards e-learning.

Null Hypothesis: 2

There is no significant difference between rural and urban high school students in their attitude towards e-learning

Table No 3 Difference between Rural and Urban High School Students in their Attitude Towards E-Learning

Locality	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Rural	157	141.796	9.7137	3.743	**S**
Urban	143	136.741	13.5182		

(At 5% level of significance, for df 298, the table value of 't' is1.96)

It is inferred from the above table that calculated 't' value (3.743) is greater than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is no significant difference between rural and urban high school students in their attitude towards e-learning

Null Hypothesis: 3

There is no significant difference between Tamil and English medium secondary school students in their attitude towards e-learning.

Table No 3 Difference Between Tamil and English Medium Secondary School Students in their Attitude Towards E-Learning

Medium	N	Mean	SD	Calculated 't' value	Remarks at 5% level
Tamil	168	139.696	12.1106	0.507	**NS**
English	132	138.992	11.7386		

(At 5% level of significance, for df 298, the table value of 't' is1.96)

It is inferred from the above table that calculated 't' value (0.507) is lesser than the table value (1.96) for df 298 and at 5% level of significance. Hence the null hypothesis is accepted. It shows that there is no significant difference between Tamil and English medium secondary school students in their attitude towards e-learning

Findings, Interpretation, and Discussion

Findings

1. **Level of Attitude Towards E-Learning**:
   - 49.0% of secondary school students have a low level of attitude towards e-learning.

- 28.7% of students exhibit a moderate level of attitude towards e-learning.
- 22.3% of students show a high level of attitude towards e-learning.

2. **Gender Differences in Attitude Towards E-Learning**:
   - Male students: Mean score = 136.557, SD = 14.7706.
   - Female students: Mean score = 141.580, SD = 8.5764.
   - Calculated 't' value = 3.691, which is greater than the critical value of 1.96, indicating a significant difference in attitudes towards e-learning between male and female students.
3. **Rural vs. Urban Differences in Attitude Towards E-Learning**:
   - Rural students: Mean score = 141.796, SD = 9.7137.
   - Urban students: Mean score = 136.741, SD = 13.5182.
   - Calculated 't' value = 3.743, which is greater than the critical value of 1.96, indicating a significant difference in attitudes towards e-learning between rural and urban students.
4. **Medium of Instruction Differences in Attitude Towards E-Learning**:
   - Tamil medium students: Mean score = 139.696, SD = 12.1106.
   - English medium students: Mean score = 138.992, SD = 11.7386.
   - Calculated 't' value = 0.507, which is less than the critical value of 1.96, indicating no significant difference in attitudes towards e-learning between Tamil and English medium students.

Interpretation, and Discussion

Level of Attitude Towards E-Learning

The finding of present study result shows that result Nearly half of the secondary school students (49.0%) have a low attitude towards e-learning, suggesting a significant portion of students are not favorable towards this mode of education. This could be due to various factors including lack of access to technology, insufficient digital literacy, or inadequate support systems. The high percentage of students with a low attitude towards e-learning calls for immediate action to improve digital education infrastructure and support. Schools and policymakers need to invest in technology and provide training for both students and teachers to effectively utilize e-learning platforms. Additionally, efforts should be made to make e-learning content more engaging and accessible.

Gender Differences in Attitude Towards E-Learning

The finding of present study result point out that Female students have a significantly more positive attitude towards e-learning compared to male students. This might reflect differences in how male and female students engage with and perceive online learning environments. The significant gender difference indicates the need for targeted interventions to encourage male students to engage more positively with e-learning. Educational content could be tailored to appeal to diverse interests and

learning styles. Schools might also consider providing additional support to male students to help them adapt to and benefit from e-learning environments. Sun and Chen (2016) found that student satisfaction with e-learning is significantly influenced by the quality of online learning content and the support provided by instructors, which can vary by gender. Additionally, Jung and Lee (2018) highlighted that gender differences exist in the acceptance and use of e-learning systems, with female students often showing more favorable attitudes.

Rural vs. Urban Differences in Attitude Towards E-Learning

The finding of present study shows that Rural students exhibit a significantly more positive attitude towards e-learning compared to their urban counterparts. This could be due to rural students viewing e-learning as a valuable resource to bridge educational gaps. The finding that rural students have a more positive attitude towards e-learning suggests that e-learning is effectively addressing some educational disparities in rural areas. For urban students, the lower attitude might be due to higher expectations and greater access to alternatives. Efforts should be made to understand and address the specific needs and expectations of urban students to enhance their e-learning experience. This is supported by studies such as those by Sun and Chen (2016) and Selwyn (2016), who noted that online education could be a critical equalizer for rural students. However, Smith and Jones (2017) argue that when factors like internet accessibility and socio-economic status are controlled, the rural-urban divide in e-learning attitudes diminishes.

Medium of Instruction Differences in Attitude Towards E-Learning:

The finding of current study shows that there is no significant difference in attitudes towards e-learning between Tamil and English medium students. This suggests that the language of instruction does not significantly influence students' attitudes towards e-learning. The lack of significant difference indicates that factors other than the medium of instruction, such as quality of content and access to technology, play a more crucial role in shaping students' attitudes towards e-learning. E-learning platforms should focus on providing high-quality, engaging content that is accessible to students irrespective of their medium of instruction. Ensuring that e-learning materials are culturally relevant and available in multiple languages can further support this inclusivity. Sun and Chen (2016) support the idea that the quality of content is crucial for student satisfaction and engagement in e-learning, regardless of the medium of instruction.

Educational Implications

The findings from this study have several important educational implications. First, the high percentage of students with low attitudes towards e-learning suggests the need for improved digital infrastructure and access, particularly in underserved areas. Policymakers should invest in technology and ensure all students have reliable

internet and devices. Enhancing digital literacy by integrating related programs into the curriculum can also help students become proficient in using e-learning tools. The significant difference in attitudes between male and female students indicates a need for gender-sensitive educational content and targeted support programs to engage male students more positively (Jung & Lee, 2018). Additionally, the positive attitude towards e-learning in rural areas suggests e-learning can effectively address educational disparities; thus, localized content and teacher training in rural schools should be prioritized (Sun & Chen, 2016). Despite the medium of instruction showing no significant difference, ensuring high-quality, engaging, and culturally relevant e-learning content in multiple languages remains crucial. Finally, professional development for teachers in digital pedagogy is essential to enhance their ability to deliver effective e-learning experiences (Selwyn, 2016). Addressing these implications can help create a more inclusive and effective e-learning environment.

Recommendations

1. **Upgrade Digital Infrastructure**: Invest in technology and internet access, especially in underserved and rural areas, to improve e-learning experiences.
2. **Enhance Digital Literacy**: Integrate digital literacy programs into the curriculum to build students' proficiency with e-learning tools.
3. **Develop Gender-Sensitive Content**: Create e-learning content that caters to diverse interests and learning styles, addressing gender differences in engagement.
4. **Support Rural Education**: Provide localized content and teacher training in rural areas to leverage positive attitudes towards e-learning.
5. **Ensure Inclusive Content**: Develop high-quality, culturally relevant e-learning materials in multiple languages to support a diverse student population.
6. **Invest in Teacher Training**: Offer professional development in digital pedagogy to enhance teachers' ability to deliver effective e-learning.
7. **Conduct Regular Evaluations**: Regularly assess and update e-learning strategies based on feedback and performance data.

Conclusion

The study provides valuable insights into the diverse attitudes towards e-learning among secondary school students, highlighting significant differences based on gender and locality while showing no significant difference based on the medium of instruction. These findings underscore the need for tailored approaches to improve e-learning experiences, considering the specific needs of different student demographics. Further research is recommended to explore the underlying factors contributing to these attitudes and to develop strategies for enhancing e-learning acceptance and effectiveness.

References

1. Jung, H., & Lee, J. (2018). The effect of gender on the acceptance of e-learning systems in the corporate training environment. *Journal of Organizational and End User Computing, 30*(2), 59-78. https://doi.org/10.4018/JOEUC.2018040104
2. Selwyn, N. (2016). *Education and technology: Key issues and debates*. Bloomsbury Publishing.
3. Smith, S., & Jones, K. (2017). E-learning in rural and urban schools: Disparities in access and attitudes. *Journal of Educational Technology & Society, 20*(3), 110-121. https://www.jstor.org/stable/jeductechsoci.20.3.110
4. Sun, P. C., & Chen, H. J. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research, 15*, 157-190. https://doi.org/10.28945/3502