AWARENESS OF E-LEARNING AMONG HIGH SCHOOL STUDENTS

Suresh Prabu P

Abstract

This study investigates e-learning awareness among high school students in Tamil Nadu, India, analyzing variations across demographic factors. Using a survey methodology with 300 students (160 male, 140 female) from diverse school settings, the research assessed e-learning awareness through a validated scale. Findings indicate 63.3% of students demonstrate moderate awareness, while 20% exhibit low awareness levels. The analysis revealed significant disparities: IX standard students (mean=50.09) showed greater awareness than X standard peers (mean=47.50), Tamil-medium learners (mean=49.45) outperformed English-medium students (mean=47.40), and rural students (mean=50.37) displayed higher awareness than urban counterparts (mean=47.18). Notably, no significant gender differences emerged. These results challenge conventional assumptions about urban digital advantage and highlight the need for tailored interventions, including localized content development, infrastructure improvements in urban schools, and specialized teacher training programs. The study underscores the importance of addressing grade-level and language-medium specific challenges to enhance e-learning adoption, providing valuable insights for educational policymakers and practitioners working to bridge digital divides in secondary education.

Keywords: E-learning Awareness, Digital Literacy, High School Students, Rural-Urban Divide, Language Medium, Tamil Nadu.

Introduction

Electronic learning or e-learning refers to computer enhanced learning. It is commonly associated with the field of Advanced Learning Technology (ALT). It deals with both the technologies and associated methodologies in learning using net- worked and multimedia technologies. The E-learning or Electronic learning is the process of acquiring information from the web sites. E-learning is about using internet technologies for getting and sharing information. E-learning can be defined as the use of processes and technologies to create, distribute, manage and enable learning via an electronic network. Web Based Training, Online learning and Distance education are other synonymous terms. Therefore, E-learning

is a media to educate and create impromptu class rooms in the villages and in the remotest towns and in the cities. The term E-learning has brought a new meaning to Education. E-learning transcends typical time and space barriers, allowing students to access learning opportunities day and night from any part of the world.

In higher institutions, E-learning is making it possible for those with families, full-time jobs and all other kinds of responsibilities, to be a part of the knowledge economy. Technology developments have raised hopes for millions to participate in the paper-less society.

Significance of the Study

Now we are in the age of knowledge explosion. The revolution in ICT called Grey revolution, has changed teaching learning process from teacher centered to student centered one. It is true that the learning process is optimum when it is assisted and personalized Technology Enhanced Learning (TEL) plays an important role in personalizing the learning process. The development in computer technology has resulted in E – Learning. The new learning materials like audio (or) video materials accompany the traditional texts. Since the E-Learning based computerized learning is an alternative way to teach and learn.

E-Learning is more focused on the learner and it is more interesting for the learner because it is information that they want to learn. E-Learning is flexible and can be customized to meet the individual needs of the learners. E-Learning helps students develop knowledge of the Internet. This knowledge will help learners throughout their careers. E-Learning encourages students to take personal responsibility for their own learning. When learners succeed, it builds self-knowledge and self-confidence in them. Educators and corporations really benefit from e-Learning. Learners having the opportunity to learn at their own pace, on their own time and have it less costly. Today all the students should aware about e-Learning. So, the investigator in the present study wants to find out the awareness about e-Learning among high school students. E-Learning can minimize the error and concentrate more than the speed of the instructor, who teachers the subject with this taught in mind, the investigator has made an attempt to find out the Awareness of E-Learning among High School Students.

Title of the Study

Awareness of E-Learning among High School Students.

Operational Definitions

The key term used in the title are given below.

E-Learning

E-learning is the use of electronic educational technology in learning and teaching. Information and Communication Technology (ICT) in education, EduTech, learning technology, multimedia learning, Technology Enhanced Learning (TEL), Computer Based

Instruction (CBI), computer managed instruction, Computer Based Training (CBT), Computer Assisted Instruction or Computer Aided Instruction (CAI), Internet Based Training (IBT), flexible learning, Web Based Training (WBT), online education, online learning, virtual education, Virtual Learning Environments (VLE) (which are also called learning platforms), m-learning, and digital education. In usage, all of these terms appear in articles and reviews; the term "e-learning" is used frequently, but is variously and imprecisely defined and applied.

High School Students

The students who are all studying the class ninth and tenth standard in high and higher secondary school.

Objectives

1. To find out the level of E-learning of high school students.
2. To find out whether there is any significant difference between male and female high school students in their awareness of E-learning.
3. To find out whether there is any significant difference between rural and urban area high school students in their awareness of E-learning.
4. To find out whether there is any significant difference between rural and urban school high school students in their awareness of E-learning.
5. To find out whether there is any significant difference between ninth and tenth standard high school students in their awareness of E-learning.

Null Hypotheses

1. There is no significant difference between male and female high school students in their awareness of E-learning.
2. There is no significant difference between rural and urban area high school students in their awareness of E-learning.
3. There is no significant difference between rural and urban school high school students in their awareness of E-learning.
4. There is no significant difference between ninth and tenth standard high school students in their awareness of E-learning.

Method Adopted

The investigator has selected the normative survey method for conducting the study.

Tools Used for the Present Study

The investigator developed the questionnaires for conducting a study on "**Awareness of E-Learning Among High School Students**" The investigator has adopted the E-learning scale. E-learning scale prepared and validated by Dr. A. Vences Cyril (2018).

Establishing the Validity

"Validity refers to the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of test" (Best and Khan, 2006). The validity of the tool has been found through face validity for the tool.

Face Validity

The preliminary draft tool of the variable namely, Awareness of E-Learning scale was given to experts in education and technology who examined the different items of the tool and their opinions was highly solicited. It was given to an expert in ICT for further scrutiny. His suggestions regarding the suitability and standard of language are considered. Thus the face validity of the tool was established.

Establishing the Reliability

According to Sharma (2004), "Reliability refers to whether a test is internally consistent (i.e.) consistency of scores obtained throughout the test when administered one or how accurately is the test measuring at a particular time". In the present study, the investigator employed test re-test method for establishing reliability for the tool.

Test-Retest Method

To establish the reliability of Awareness of E-Learning Scale by test-retest method, it was administered to 50 people and it was re-administered to the same set of students after an interval of 15 days. The two sets of scores were correlated using Pearson product moment correlation and the value was found to be 0.806, which is substantial. So the tool is considered as high reliable. Since the 'γ' value for each variable is more than 0.80 the tool was highly reliable.

Scoring Procedure

The scoring was done with the key which was adopted by the investigator for the tool. In the Awareness of E-Learning Scale, 21 items are present in this scale. It is a five point scale. The respondent has to choose any one from the given three responses namely, i) Yes, ii) Some Times and iii) No. Thus, the maximum score obtained by a sample was 63 and the minimum score obtained by a sample was 21. The scoring key for Awareness of E-Learning Scale is given in the table.

Table 1 Scoring Key for Awareness of E-Learning Scale

Nature of the Items	Yes	Some times	No
Positive	3	2	1

Population and Sample

The high school students in Tamilnadu made up the study's population. The sample that the investigator took is displayed in the following table. Three hundred upper secondary students from various Tamilnadu schools made up the sample for this study. Ten schools were chosen by the researcher for this investigation. The researcher has chosen to use the random sampling technique.

Statistical Techniques Used

"Statistics is the scientific study of handling quantitative information. It embodies a methodology of collection, classification, description and interpretation of data obtained through the conduct of surveys and experiments". Percentage analysis, Arithmetic mean, Standard deviation and 't' test.

Analysis

To find out the level of awareness of e-learning of high school students

Table 2 Level of Awareness of E-Learning of High School Students

Awareness of E-Learning of High School Students	Low		Moderate		High	
	N	%	N	%	N	%
	60	20.0	190.0	63.3	50	16.7

Null Hypothesis 1

There is no significant difference between male and female students in their awareness of e-learning.

Table 3 Difference between Male and Female Students in their

Awareness of E-Learning

Awareness of E-Learning of High School Students	Category	Count	Mean	S.D	Calculated 't' value	Remarks at 5% level
	Male	160	48.925	8.5182	0.268	NS
	Female	140	48.657	8.7102		

Null Hypothesis 2

There is no significant difference between IX and X standard students in their Awareness of e-learning.

Table 4 Difference between IX and X Standard Students in their Awareness of E-Learning

Awareness of e-learning of high school students	Category	Count	Mean	S.D	Calculated 't' value	Remarks at 5% level
	IX	150	50.093	7.6810	2.632	S
	X	150	47.507	9.2669		

Null Hypothesis 3

There is no significant difference between Tamil and English medium students in their Awareness of e-learning of high school students.

Table 5 Difference between Tamil and English Medium Students in their Awareness of E-Learning

Awareness of e-learning of high school students	Category	Count	Mean	S.D	Calculated 't' value	Remarks at 5% level
	Tamil	204	49.456	8.4424	1.967	S
	English	96	47.406	8.7930		

Null Hypothesis 4

There is no significant difference between rural and urban area school students in their Awareness of e-learning of high school students.

Table 6 Difference between Rural and Urban Area School Students in their Awareness of E-Learning

Awareness of e-learning of high school students	Category	Count	Mean	S.D	Calculated 't' value	Remarks at 5% level
	Rural	152	50.375	8.2805	3.268	S
	Urban	148	47.182	8.6387		

Results and Discussion

- Table 2 inferred from the above table 2 that 20.0% of students have low, 63.3% of them have moderate and 16.7% of them have high level of awareness of e-learning.
- Table 3 reveals that the above table 3 that the calculated 't' (0.268) value is lesser than the table value (1.96) at 5% level of significance. Hence null hypothesis is accepted.

- Table 4 reveals that the above table 4 that the calculated 't' value (2.632) is greater than the table value (1.96) at 5% level of significance. Hence null hypothesis is rejected that there is a significant difference between IX and X standard students in their Awareness of e-learning. While comparing their mean score the IX standard mean (50.09) score and X standard (49.50) score. The IX standard students are better than X standard students.
- Table 5 reveals that the above table 5 that the calculated 't' value (1.967) is greater than the table value (1.96) at 5% level of significance. Hence null hypothesis is rejected. There is a significant difference between Tamil and English Medium Students in their Awareness of e-learning. While comparing the mean scores of Tamil (mean = 49.45) and English (mean= 47.40) students, Tamil medium students are better than the English medium in their Awareness of e-learning.
- Table 6 inferred from the above table 6 that the calculated 't' value (3.268) is greater than the table value (1.96) at 5% level of significance. Hence null hypothesis is rejected. There is a significant difference between rural and urban area school students in their awareness of e-learning. While comparing the mean scores of rural area school (mean = 50.375) and urban area school (mean= 47.182) students, rural area school students are better than the urban are school in their awareness of e-learning.

Recommendations

1. **Enhanced E-Learning Integration for Low-Awareness Groups**
   - Since 20% of students demonstrated low awareness of e-learning, schools should implement structured digital literacy programs to familiarize students with online learning platforms, tools, and best practices.
   - Conduct workshops and orientation sessions for students, teachers, and parents to bridge the awareness gap.
2. **Targeted Support for X Standard Students**
   - The study found that IX standard students (mean = 50.09) had significantly higher e-learning awareness than X standard students (mean = 49.50).
   - Schools should provide additional e-learning training for X standard students, possibly integrating digital tools into exam preparation and revision sessions.
3. **Language-Specific E-Learning Strategies**
   - Tamil medium students (mean = 49.45) outperformed English medium students (mean = 47.40) in e-learning awareness.
   - Schools should:
   - Develop more localized e-learning content in Tamil to enhance accessibility.
   - Offer bilingual (Tamil-English) digital resources to ensure inclusivity.

4. **Special Focus on Urban Schools**
   - Rural students (mean = 50.375) showed higher e-learning awareness than urban students (mean = 47.182), contrary to common assumptions.
   - Urban schools should:
   - Investigate possible infrastructure or engagement gaps (e.g., internet access, teacher training).
   - Implement digital awareness campaigns and peer-learning initiatives.
5. **Teacher Training & Curriculum Adaptation**
   - Educators should receive professional development on blended learning models (combining traditional and digital methods).
   - Schools should modify curricula to include mandatory e-learning modules, ensuring students develop digital competence early.
6. **Policy-Level Interventions**
   - Government and educational boards should:
   - Allocate funding for digital infrastructure in schools, particularly in urban areas.
   - Introduce standardized e-learning assessments to track student progress.
7. **Future Research Directions**
   - Conduct qualitative studies to explore why certain groups (X standard, English medium, urban students) lag in e-learning awareness.
   - Investigate the impact of socioeconomic factors on digital learning adoption.

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