DIGITAL READINESS IN TEACHER EDUCATION: AN ANALYSIS OF E-LEARNING AWARENESS AMONG B.ED. TRAINEES

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Abstract

The increasing integration of digital technologies in education has reshaped traditional teaching–learning practices, making e-learning a central component of modern pedagogy. The preparedness of future educators is critical for the successful implementation of digital learning environments. The present study investigates the level of e-learning awareness among B.Ed. trainees in Karnal district, Haryana, and examines differences based on gender, locality, and type of institution. A sample of 100 trainees was selected using a stratified random sampling technique. The findings reveal statistically significant differences in awareness with respect to gender and locality, whereas no significant difference was observed across institutional management. The study highlights the need to strengthen digital competencies among teacher trainees to ensure effective participation in technology-driven education.

Keywords: E-learning, Digital readiness, Teacher education, Awareness, B.Ed. trainees

1. Introduction

The rapid advancement of information and communication technology has brought transformative changes to the field of education. E-learning, defined as the use of digital tools and internet-based platforms for delivering instruction, has emerged as a key mode of teaching and learning in the 21st century.

In recent years, educational institutions have increasingly adopted online and blended learning approaches. This transition has emphasized the importance of digital readiness among educators. Teachers are now expected to integrate technological tools into their teaching practices to enhance student engagement and learning outcomes.

Teacher education institutions play a crucial role in preparing future teachers for these emerging challenges. B.Ed. trainees, as prospective educators, must develop adequate awareness and skills related to e-learning. Their level of preparedness significantly influences the success of technology-integrated classrooms, particularly in regions like Karnal district, Haryana, where both urban and rural educational settings coexist.

2. Need and Significance of the Study

The growing reliance on digital platforms in education has made it essential to assess the readiness of teacher trainees. E-learning offers numerous advantages, including flexibility, accessibility, and personalized learning experiences. However, its effectiveness depends largely on the awareness and competence of teachers.

In districts like Karnal, disparities in access to digital resources are still evident between urban and rural areas. Many trainees may not have sufficient exposure to modern technological tools, which can affect their ability to implement e-learning effectively.

This study is significant as it provides insights into the level of e-learning awareness among B.Ed. trainees in Karnal district. The findings can help teacher education institutions, policymakers, and curriculum planners design targeted interventions to enhance digital readiness and promote inclusive education.

3. Statement of the Problem

In the context of increasing dependence on digital education, it is necessary to evaluate whether future teachers are adequately prepared to adopt e-learning practices.

Hence, the study is titled:
"Digital Readiness in Teacher Education: An Analysis of E-Learning Awareness among B.Ed. Trainees in Karnal District, Haryana."

4. Objectives of the Study

1. To assess the level of e-learning awareness among B.Ed. Trainees

2. To compare awareness levels based on gender

3. To examine differences in awareness based on locality (urban and rural)

4. To analyze differences based on type of institution (government and private)

5. To explore the implications of e-learning awareness for teacher preparedness

5. Hypotheses of the Study

1. There is no significant difference in e-learning awareness with respect to gender

2. There is no significant difference in e-learning awareness with respect to locality

3. There is no significant difference in e-learning awareness with respect to institutional management

6. Methodology

6.1 Research Method

The study employed a **normative survey method** to collect data regarding e-learning awareness among B.Ed. trainees.

6.2 Sample

A total of 100 B.Ed. trainee teachers were selected from **secondary schools of Karnal district, Haryana** using a **stratified random sampling technique**. The sample included trainees from urban and rural areas as well as from government and private institutions.

6.3 Tool Used

A **self-developed structured questionnaire** was used to assess e-learning awareness. The tool covered aspects such as familiarity with digital platforms, usage of online learning tools, and attitudes towards e-learning.

6.4 Statistical Techniques

The collected data were analyzed using:

Mean , Standard Deviation and t-test.

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7. Analysis and Interpretation of Data

Table 1: Gender-wise Comparison of E-Learning Awareness

Gender	**N**	**Mean**	**S.D**	**t-value**
Male	50	52.35	4.84	**3.79**
Female	50	56.45	5.91	

Interpretation:
The calculated t-value (3.79) is significant at the 0.01 level, indicating a meaningful difference in awareness between male and female trainees. Female trainees exhibit higher awareness levels.

Table 2: Locality-wise Comparison of E-Learning Awareness

Locality	**N**	**Mean**	**S.D**	**t-value**
Urban	50	58.27	4.48	**4.69**
Rural	50	53.52	5.57	

Interpretation:
The obtained t-value (4.69) indicates a significant difference between urban and rural trainees. Urban trainees demonstrate higher awareness due to better access to digital resources.

Table 3: Management-wise Comparison of E-Learning Awareness

Management	**N**	**Mean**	**S.D**	**t-value**
Government	50	57.32	4.72	**1.69**

Management	N	Mean	S.D	t-value
Private	50	55.54	5.74	

Interpretation:
The calculated t-value (1.69) is not statistically significant, indicating no meaningful difference in awareness between trainees from government and private institutions.

8. Findings

1. A significant difference exists in e-learning awareness with respect to gender
2. A significant difference exists with respect to locality
3. No significant difference exists with respect to institutional management

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9. Discussion

The findings indicate that demographic variables influence the level of e-learning awareness among B.Ed. trainees. The higher awareness among female trainees may be linked to greater academic involvement and adaptability to digital learning tools.

The difference between urban and rural trainees reflects the ongoing digital divide. Urban trainees benefit from better infrastructure, internet connectivity, and exposure to technology.

The absence of differences based on institutional management suggests that both government and private institutions are providing comparable opportunities for digital learning exposure.

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10. Educational Implications

1. Teacher education programs should incorporate comprehensive digital literacy training
2. Institutions should provide hands-on experience with e-learning platforms
3. Special support should be extended to rural trainees
4. Curriculum should emphasize technology-integrated teaching strategies

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11. Limitations of the Study

- The sample size was limited to 100 trainees
- Only selected variables were considered

Findings may not be generalized beyond the study area

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12. Suggestions for Further Research

1. Future studies can include larger and more diverse samples

2. Comparative studies across different districts or states can be conducted
3. Research can explore the impact of digital readiness on teaching effectiveness

13. Conclusion

E-learning has become an indispensable component of modern education, and teacher readiness is essential for its effective implementation. The study highlights variations in awareness levels among B.Ed. trainees in Karnal district, Haryana, emphasizing the need for targeted interventions.

Strengthening digital competencies in teacher education programs will ensure that future educators are better equipped to meet the demands of a technology-driven educational environment.

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