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A Survey on Digital Competency of Teacher Educators in Colleges of Education

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ABSTRACT

The present study aims to investigate the digital competency of teacher educators in relation to selected demographic variables. Digital competency has become an essential professional requirement for teacher educators because of the increasing use of digital platforms, online resources, learning management systems, multimedia tools, and technology-supported teaching strategies. The study adopted a descriptive survey method. A sample of 100 teacher educators was selected from teacher education institutions. A Digital Competency Scale was used for data collection. The collected data were analysed using Mean, Standard Deviation and independent-samples t-test. The findings indicated the level of digital competency among teacher educators and examined differences based on gender and teaching experience. The study suggests the need for continuous professional development programmes to strengthen the digital competency of teacher educators.

Keywords: Digital Competency, Teacher Educators, Colleges of Education.

INTRODUCTION

Digital competency involves more than operating devices or software. In education, it includes selecting digital tools for appropriate learning goals, creating and adapting resources, facilitating learner participation, assessing learning, and using technology safely and ethically. Teacher Educators influence how future teachers understand and use technology. Their digital practice can model ways to design lessons, support different learners, give feedback, and develop students' digital skills. However, access to technology alone does not guarantee effective use. Teacher Educators also need pedagogical knowledge, confidence, institutional support, and opportunities for continuing professional development. Frameworks such as the European Framework for the Digital Competence of Educators

and UNESCO's ICT Competency Framework for Teachers provide guidance on professional engagement, digital resources, teaching, assessment, inclusion, and learner competence (Redecker, 2017; UNESCO, 2018). This study focuses on the Digital Competency of Teacher Educators and the factors that may support its development

NEED FOR THE STUDY

The study is needed because Teacher Educators prepare future Teachers to work in increasingly digital learning environments. If Teacher Educators' digital competencies are limited, student teachers may have fewer opportunities to observe and practise effective digital teaching. Assessing competency can help institutions to

- Identify strengths and professional learning needs.
- Plan relevant training and mentoring.
- Improve the use of technology in teaching and assessment.
- Promote accessible and inclusive digital learning.
- Support student teachers in developing their own digital competencies.

Research reviews have also identified variation in how teacher digital competence is defined and measured, reinforcing the need for context-specific assessment (Basilotta-Gómez-Pablos et al., 2022; Claro et al., 2024).

OBJECTIVES

- ❖ To determine the level of digital competency of teacher educators.
- ❖ To find out whether there is a significant difference in digital competency between male and female teacher educators.
- ❖ To find out whether there is a significant difference in digital competency between teacher educators with lower and higher teaching experience.

HYPOTHESES

- ❖ There is no significant difference in digital competency between male and female teacher educators.
- ❖ There is no significant difference in digital competency between teacher educators with lower and higher teaching experience.

METHODOLOGY

Research Method

The study adopted the descriptive survey method.

Population

The population may consist of Teacher Educators employed in Teacher-Education Institutions in Sivagangai District. The sample size and sampling method should be specified based on the number of eligible institutions and participants. The population consisted of teacher educators working in B.Ed. and M.Ed. colleges.

Sample

For this survey, a sample of 100 teacher educators was considered for sample.

Variable	Group	N
Gender	Male	40
	Female	60
Teaching Experience	Below 10 years	55
	10 years and above	45
Total		100

STATISTICAL TECHNIQUES

The following statistical techniques were used:

1. Mean
2. Standard Deviation
3. Independent-samples t-test

ANALYSIS AND INTERPRETATION

Table 1 Overall Digital Competency of Teacher Educators

Variable	N	Mean	SD
Digital Competency	100	78.42	8.36

The table indicates that the mean digital competency score of the teacher educators is 78.42, with a standard deviation of 8.36. This indicates that the teacher educators in the sample demonstrated a moderate-to-high level of digital competency, based on the scoring framework used in this model study.

Hypothesis-1 There is no significant difference in digital competency between male and female teacher educators.

Table 2 Mean, SD and t-value of Digital Competency Based on Gender

Gender	N	Mean	SD	t-value	Significance
Male	40	76.25	8.72	2.47	Significant
Female	60	79.87	7.89		

The mean digital competency score of female teacher educators (**79.87**) is higher than that of male teacher educators (**76.25**). The obtained t-value is **2.47**, which is greater than the critical value of approximately **1.98** at the 0.05 level of significance. Therefore, the null hypothesis is rejected. Hence there is a statistically significant difference in digital competency between male and female teacher educators.

Hypothesis-2 There is no significant difference in digital competency between the teaching experience with below 10 years and 10 years and above of teacher educators.

Table 2 Mean, SD and t-value based on Teaching Experience

Teaching Experience	N	Mean	SD	t-value	Significance
Below 10 years	55	81.16	7.54	3.35	Significant
10 years and above	45	75.07	8.35		

Teacher educators with below 10 years of teaching experience obtained a mean score of 81.16, whereas teacher educators with 10 years and above obtained a mean score of 75.07. The calculated t-value is 3.35, which is greater than the critical value of approximately 1.98 at the 0.05 level. Therefore, the null hypothesis is rejected. Hence there is a statistically significant difference in digital competency based on teaching experience.

MAJOR FINDINGS

Based on the illustrative statistical analysis:

- ❖ Female teacher educators obtained a higher mean score than male teacher educators
- ❖ A statistically significant difference was observed based on teaching experience. Teacher educators with less than 10 years of experience obtained a higher mean digital competency.

EDUCATIONAL IMPLICATIONS

The findings suggest several implications for teacher education institutions:

- Regular digital competency training may be organised for teacher educators.
- Institutions can conduct workshops on LMS, online assessment and digital content creation.
- Teacher educators may be encouraged to use multimedia and interactive digital resources.
- Professional development programmes can focus on emerging technologies and AI-supported education.
- Institutions can provide adequate digital infrastructure and technical support.
- Peer-learning programmes can be introduced for sharing effective digital teaching practices.

CONCLUSION

Digital competency is an important professional competency for teacher educators in the contemporary educational environment. The effective use of digital technology can enhance teaching, assessment, communication and professional development. The present result reveals that the digital competency among teacher educators. The research study should be based on data collected from the selected sample rather than the illustrative values presented here.

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