

LEARNING AGILITY AND DIGITAL COMPETENCY AMONG PROSPECTIVE TEACHERS

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Abstract

The main focus of this study was to examine the association between learning agility and digital competency of prospective teachers pursuing B.Ed. programme in Colleges of Education situated at Chennai District. Sample of the study comprised of 300 student teachers. Normative survey method was employed in this study. Stratified Random Sampling method was used to select the sample. Learning Agility questionnaire was developed by the investigator and Digital Competency Scale constructed and standardized by Ergul, D.Y., & Tasar, M.F.(2023) was used to assess the chosen factors. Pearson Product Moment correlation, 't' test and ANOVA was performed to analyze the data.

Results revealed that significant relationship existed between learning agility and digital competency of prospective teachers. First year prospective teachers have more learning agility and second year prospective teachers have high digital competency. With respect to type of management, it was revealed that private college prospective teachers have more learning agility and government college student teachers excel in digital competency.

Keywords: Learning Agility, Digital Competency, Year of Study, Type of Management, Prospective Teachers

1. INTRODUCTION

Significant changes in the world of education due to advances in digital technology in the digital era require teachers to have learning agility that are adaptive, flexible, and fast. So far, teachers are still accustomed to conventional teaching and learning patterns such as lectures. They tend to be textbooks, so they are less proficient when faced with computer-based technology. Thus, teachers need to have responsive learning skills and easily adjust to situations to help them deal with changes that occur quickly and develop new abilities needed in the digital era.

Therefore, efforts are required to strengthen future teachers' learning agility to improve the quality of learning in the digital age. Research and literature that examines learning agility and the use of digital technology in learning in the digital age can provide guidance and strategies for teachers to strengthen their learning agility skills (Georgiou et al., 2019). This study aims to study learning agility of prospective teachers in relation to their digital competency.

2. REVIEW OF RELATED LITERATURE

Sriyadi et al. (2025) explored the relationships between perceived digital competence, attitude towards digital technology, learning agility, and student engagement among 246 junior high school students in Muaro Jambi Regency. Using a quantitative approach and Partial Least Squares Structural Equation Modelling analysis, the research investigated how these variables interact to influence sustainable student engagement in a digitally enriched academic environment. The findings indicated that perceived digital competence significantly influences learning agility. Also, attitudes toward digital technology positively predict learning agility and moderately affect student engagement. Learning agility emerges as a critical mediator, significantly contributing to student engagement. These results emphasized the pivotal role of learning agility in bridging digital competence, attitudes, and engagement in academic contexts.

Kori et al. (2025) examined the relationships among student engagement, information literacy, perceived digital proficiency and learning agility within a university student population. This study surveyed 323 students from a higher education institution to assist educators in improving students' learning agility and refining educational strategies. It used Structural Equation Modelling to look at the direct and indirect relationships between these variables. The results showed that how engaged students have a big effect on their information skills, which in turn affects how competent they feel with technology and how quickly they learn, with a mediator between information skills and learning agility.

Patwardhan et al. (2023) studied through this cross-sectional study, a DigiComp framework was attempted to investigate the relationship between digital competency and perceived learning among higher education students in India. The data from 359 graduate and post-graduate students were analyzed using Structural equation modelling. The findings of this study revealed that digital competency had a significant positive impact on perceived learning showing that higher learners' digital competency leads to higher learning outcomes. Similarly, digital competency also had a significant positive impact on learner agility. Also, a positive significant relationship was also found between learning agility and perceived learning. This significant positive path reveals that higher learners' agility leads to higher student learning outcomes.

3. NEED AND SIGNIFICANCE OF THE STUDY

Education is continuously changing with new pedagogies, technologies, and policies. Nowadays, classrooms are diverse, requiring adaptive teaching strategies. Teachers need to quickly respond to challenges such as curriculum changes, student needs, and unexpected disruptions (e.g., online learning situations). It promotes reflective practice and lifelong learning, which are essential qualities of effective teachers.

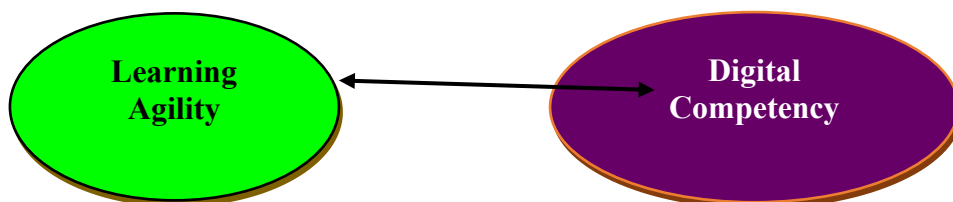
Agile and digitally competent teachers can design innovative and student-centered learning experiences. These competencies encourage teachers to stay updated with current trends and practices. Teachers who adapt quickly and use technology effectively can better cater to diverse learners and can produce successful learning outcomes. Learning agility helps teachers handle uncertainties, while digital competency equips them to function efficiently in technology-rich environments. Teachers serve as role models, guiding students to develop similar skills required for the digital age.

Hence, in this study, honest attempt was made on the part of the researcher to examine the learning agility and digital competency of prospective teachers studying in colleges of Education located in Chennai District.

4. CONCEPTUAL FRAMEWORK OF THE STUDY

By reviewing a number of studies related to learning agility and digital competency both foreign and Indian context, it is observed that only a few studies explored the relationship between learning agility and digital competency of prospective teachers particularly in Indian context.

Research studies have revealed that undergraduate students need extensive training in digital technologies (Kim et al., 2018). To moderate the gap, in institutions of higher learning, both learners and educators need to develop technology-related knowledge, skills, and attitudes through ongoing learning programmes. Students must embrace an agile mindset to meet the demands of digital innovations. Learning agility is an essential factor that integrates digital technologies into student learning and engagement in academic life. It is believed to significantly influence learners' ability to progress to more complex and challenging learning assignments (Almeida, 2019). Similarly, it can be presumed that students living in an era of transition may find it challenging to adapt to new learning situations with the present digital innovations. Therefore, they are anticipated to be flexible and fast learners amid a high level of knowledge and evolving digitalization as prerequisites to acquire new opportunities. Students perceive that agile practices have a great potential to enhance their learning experiences (Melnik & Maurer, 2002). Considering the relationship between learning agility and digital competency, the conceptual framework of the present study is presented as below.



STATEMENT OF THE PROBLEM

Learning agility plays a crucial role in shaping the digital competency of prospective teachers, especially in today's rapidly evolving educational scenario. This adaptability directly supports the development of digital competency, which requires staying current with digital trends. Prospective teachers who have learning agility are more likely to integrate technology effectively into lesson planning and classroom instruction. Thus, learning agility reduces technophobia and promotes confident technology usage. It encourages critical thinking and reflective practice enabling them to apply knowledge to new digital challenges. This motivates them to engage in online courses, webinars, and digital training and builds resilience in facing with technological changes in classroom teaching. Learning-agile individuals develop confidence in their ability to learn new technologies. This leads to more effective and innovative use of digital tools in teaching. They can design interactive and student-centered digital lessons through which

they foster 21st-century skills among students.

Thus, the present study focuses on examining the two different aspects namely, learning agility and digital competency of prospective teachers studying in colleges of Education situated in Chennai District. Hence the statement of the problem is titled as “**Learning Agility and Digital Competency Among Prospective Teachers.**”

OPERATIONAL DEFINITIONS

Learning agility refers to the capacity of student teachers to quickly acquire new knowledge, reflect on their experiences, unlearn outdated practices, and flexibly apply innovative teaching strategies to meet the evolving demands of the classroom.

Digital competency refers to the knowledge and skills required to use digital technologies efficiently, responsibly, and creatively.

Prospective teachers are those who are pursuing two-year B.Ed. Programme in colleges of Education.

OBJECTIVES OF THE STUDY

- To explore the relationship between learning agility and digital competency of prospective teachers
- To compare the prospective teachers' learning agility and digital competency based on year of study
- To compare the learning agility and digital competency of prospective teachers with respect to type of management.

HYPOTHESES OF THE STUDY

- There is significant relationship between learning agility and digital competency of prospective teachers.
- There is no significant difference between prospective teachers in learning agility and digital competency based on year of study
- There is no significant difference among prospective teachers in learning agility and digital competency with respect to type of management.

5. METHODOLOGY

This is a descriptive research study and normative survey method is adopted. The sample of the study were 315 prospective teachers studying in colleges of Education situated at Chennai District. Stratified Random sampling technique was used for data collection.

INSTRUMENTATION

Learning agility questionnaire developed by the investigator and Digital Competency Scale constructed by Ergul, D.Y., & Tasar, M.F.(2023) was used to measure the research variables.

DATA ANALYSIS AND INTERPRETATION

Data collected from the participants were subjected to appropriate statistical analysis to draw up inferences from it. Pearson product moment correlation, ‘t’ test and ANOVA was performed.

Hypothesis 1: There is significant relationship between learning agility and digital competency of prospective teachers.

Table 1. Correlation co-efficient between learning agility and digital competency of prospective teachers

Variables	Digital Self-Efficacy	Digital Competency
Digital Self-Efficacy	1	0.749**
Digital Competency	x	1

**Correlation is significant at 0.01 level

From the obtained ‘r’ value, significant and positive relationship between learning agility and digital competency was found among prospective teachers. This implies that higher the learning agility, higher the digital competency of prospective teachers.

Hypothesis 2: There is no significant difference between prospective teachers in learning agility and digital competency based on year of study.

Table 2. Showing the mean difference between first year and second year prospective teachers in learning agility and digital competency

Variables	Year of Study				t value	P value
	First Year (N=152)		Second Year (N=166)			
	Mean	S.D.	Mean	S.D.		
Learning Agility	72.03	16.257	70.63	17.584	5.867	0.001**

Digital Competency	59.60	15.124	63.58	12.324	4.528	0.003**
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**Significant at 0.01 level

It is evident from the 't' values presented in the above table that there is significant difference in learning agility and digital competency between first year and second year prospective teachers and significant at 0.01 level. From the mean scores, it is inferred that prospective teachers studying in first year have more learning agility and second year prospective teachers are digitally competent. This may be because the first-year student teachers are very eager to acquire new knowledge on innovative methodologies. As second year student teachers are already used to operate digital devices during their internship, they are more confident in using digital technology for classroom teaching.

Hypothesis 3: There is no significant difference among prospective teachers in learning agility and digital competency with respect to type of management.

Table 3. Showing the mean difference among prospective teachers in learning agility and digital competency based on type of management

Variables	Type of Institution						F value	P value
	Government (N=112)		Government Aided (N=97)		Private (N=109)			
	[1]		[2]		[3]			
	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Learning Agility	70.56 ^b	9.252	71.53 ^a	10.287	72.62 ^a	11.456	14.237	<0.001* *
Digital Competency	60.64 ^a _b	5.217	57.23 ^b	4.257	56.24 ^b	3.214	9.523	0.003**

**Significant at 0.01 level

It is evident from the 'F' ratios obtained that there is significant difference in learning agility and digital competency among prospective teachers significant at 0.01 level based on type of management. The results of Duncan Multiple Range Test, it is evident that prospective teachers studying in government and government aided, government and private college differ from each other. Mean scores infer that prospective teachers studying in private colleges have more learning agility followed by those studying in government aided colleges of Education. In digital competency, it is proved that Government college student teachers excel in digital competency and the prospective teachers studying in government aided and private colleges of Education have similar level of digital competency. This may be due to the fact that Government colleges provide more training in handling digital devices to their student teachers so that they can effectively teach in classrooms.

11. CONCLUSION

Learning agility enables student teachers to continuously update their knowledge, reflect on their experiences, and remain open to change. This adaptability directly enhances their digital competency, as they are more willing to explore, learn, and integrate digital tools into teaching and learning processes. In turn, digital competency empowers them to design engaging, interactive, and student-centered learning environments.

Therefore, teacher education institutions must prioritize the development of both learning agility and digital competency through training, practical exposure, and reflective practices. Equipping prospective teachers with these competencies ensures they are well-prepared to meet the challenges of modern education and contribute effectively to the teaching profession.