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Interest In Learning In Relation To Digital Competency Of Students At Higher Education Level

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ABSTRACT

The world has undergone significant transformations over time in all dimensions. The pace of changes in these dimensions and their impact on the world has rapidly escalated without any regulation, primarily due to the rapid advancement of technology. Therefore, the present generation needs to be digitally competent enough to keep pace with the swift transformation of the world. The development of digitally proficient, capable, and skilled professionals in the constantly evolving technological and online landscape necessitates that learners exhibit agility in their capacity to learn, adapt, unlearn, and relearn to stay abreast of the rapidly changing educational environment (Fulton & McGuinness, 2016; Martzoukou et al., 2020). The present study aims to find out whether there is any relationship between Digital Competency and Interest in Learning of students at higher education level and to predict Interest in Learning of students in terms of their Digital Competency. The researcher used descriptive survey method on a sample of 180 students at higher education level. The tools used for the data collection are Digital Competency Test and Interest in Learning Inventory developed by the researcher under expert validation. The data were analyzed using Descriptive statistics, Pearson's Correlation method and Simple Linear Regression. The study revealed a moderate positive

correlation (r = 0.476) between Digital Competency and Interest in Learning of students at higher education level. Also, Interest in Learning of students at higher education level can be predicted in terms of Digital Competency. The findings of the study contribute to understanding how technological skills intersect with psychological factors like interest in student's learning process. Such insights are essential for designing policies and practices that foster student success in technology-enhanced learning environments.

Introduction

The 21st century has transformed higher education into a digitally driven ecosystem, where learning no longer depends solely on traditional classroom instruction but extends into technology-mediated environments. Digital learning, characterized by the incorporation of information and communication technologies (ICT) into educational methodologies, has emerged as a fundamental element of contemporary education (Hemajothi and Jain, 2022). Digital Competency refers to the development of digital skills, attitudes, dispositions, and/or behaviors that are crucial for learners, educators, and all individuals to effectively engage with technology, thereby ensuring their full participation in a technology-driven society. These competencies empower individuals to lead, educate, learn, navigate, communicate, and leverage both current and emerging technologies across different facets of their personal, academic, and professional lives. Digital competency encompasses a wide range of skills and competencies, including technology, computing, literacy, media, information, and communication. It is defined as the confident and critical use of Information Society Technology (IST) for work, leisure, and communication. Alkalai (2004) refers to it as "survival skills in the digital era," while Deursen & Dijk (2010) refers to it as "vital asset in the information society." The European Union has identified digital competency as one of the eight key competencies required for lifelong learning. Digital competency is a multidimensional concept that encompasses technical, cognitive, and digital skills, as well as metacognitive processes, social, emotional, and ethical a wareness related to the use and understanding of digital technologies (Choudhary, 2024).

In the context of higher education, digital competency transcends basic computer literacy; it involves the ability to access, evaluate, create, and communicate information effectively in an ethical manner with data security and privacy concerns while adapting to emerging technologies. Students in higher education are expected not only to consume digital content but also to participate actively in online collaborations,

virtual classrooms, digital research, and multimedia communication. The degree of proficiency in these digital practices directly affects their capacity to engage meaningfully in learning activities (Means et al.,2010). Furthermore, digital competency equips students with skills for lifelong learning, enabling them to adapt to a continuously evolving technology-rich professional landscape.

Students learn better when they are interested to learn. Interest is, therefore, both a psychological state characterized by increased attention, effort, and affect, experienced in a particular moment (situational interest), as well as an enduring predisposition to reengage with a particular object or topic over time (individual interest; Hidi & Renninger, 2006). Interest in Learning is broadly defined as personal orientations towards activities that are intended to develop one's academic skills and knowledge. It is a psychological variable contributing to various aspects of student learning, such as sustained attention (Shirey,1992), time spent on activities (Hidi & Renninger, 2006), approaches to learning (Alexander, Jetton, & Kulikowich,1995), academic persistence and engagement (Sansone & Smith,2000), and motivation for learning (Hidi, Renninger, & Krapp, 2004). Interest in learning can be characterized by affective reactions, perceived value, and cognitive functioning that intertwine, thereby making attention and learning feel effortless. Interest plays a crucial role in learning because if the subject matter does not align with the students' interests, they will not engage with it to the fullest of their abilities, as there is no satisfaction for them. Students may become lethargic in learning and will not find fulfilment in the subject. Content that captures students' interest is more readily absorbed, thereby enhancing learning outcomes (M. Sarumaha & Harefa, 2022). While factors such as teaching quality, curriculum design, and institutional support influence interest in learning, the role of digital competency has gained prominence in recent years. Students with higher digital competencies often report greater confidence in navigating academic resources, participating in e-learning platforms, and collaborating online, which in turn fuels their curiosity and motivation to learn.

Need and Significance of the Study

The development of digital competency of university students is vital for their success in higher education (López-Meneses et al., 2020). Students possessing advanced digital competencies are capable of effectively interpreting and comprehending online educational resources, thereby excelling in digital learning (López-Meneses et al., 2020). In contrast, those who face digital inadequacies may encounter difficulties or develop a reluctance towards online learning, resulting in elevated cognitive load and academic fatigue, which may ultimately foster a desire to abandon digital learning (Bergdahl et al., 2020; Silamut and Petsangsri, 2020). Gasevic et al.,(2017) studied the relationship between digital

competencies and academic performance, confirming that students with better digital skills tend to have better academic results and are more engaged in their studies.

The relevance of this study lies in the current global shift towards blended and online learning. Students with limited digital competencies experienced frustration, anxiety, and disengagement, while digitally competent students demonstrated resilience and sustained interest in learning (Bergdahl et al., 2020; Silamut and Petsangsri, 2020). In higher education, where autonomy and self-directed learning are emphasised, digital competency is likely to play a pivotal role in shaping student academic motivation. Recent research indicates that students who possess the skills to search for, reuse, collaborate on, and filter online information are likely to cultivate a robust sense of self-efficacy and demonstrate increased engagement in their studies (Y. Kim & Frick, 2023; Van Deursen, 2024). Therefore, exploring digital competency as a predictor of students' interest in learning is a need to shed light on. It contributes to understanding how technological skills intersect with psychological factors of motivation and engagement in student's learning process. Such insights are essential for designing policies and practices that foster student success in technology-enhanced learning environments.

While research has examined digital competencies and academic achievement, limited attention has been given to its predictive role in student interest. Understanding this relationship will help institutions design interventions that enhance not only students' technological proficiency but also their intrinsic desire to learn. The findings have implications for curriculum planners, educators, and policymakers in building inclusive and motivating digital learning ecosystems.

Objectives of the study

1. To find out the extent of digital competency of students at higher education level.
2. To find out the extent of interest in learning of students at higher education level.
3. To find out whether there is any significant relationship between Digital Competency and Interest in Learning of students at higher education level.
4. To find out whether the Interest in Learning can be predicted in terms of Digital Competency of students at higher education level.

Methodology in brief

In the present study investigator adopted descriptive survey method. 180 undergraduate and postgraduate students opted Social Science were selected using simple random sampling. Digital Competency test and Interest in Learning Inventory were used for data collection. Data collected were analyzed using Descriptive statistics, Pearson's correlation, and Simple Linear regression.

Analysis and Discussions

The data collected were analyzed as per the objectives set for the present study. The mean, standard deviation, skewness and kurtosis of the scores on Digital Competency and Interest in Learning of students at higher education were calculated. The details of analysis are given below in Table 1:

Table 1

Mean, standard deviation, skewness and kurtosis of Digital Competency and Interest in Learning of students at higher education

Variable	N	Mean	Standard deviation	Skewness	Kurtosis
Digital Competency	180	48.4	5.86	-0.29	-0.19
Interest in Learning		68.22	6.65	-0.88	0.86

Table 1 shows that the mean, standard deviation, skewness and kurtosis of the Digital Competency of students at higher education are 48.4, 5.86, -0.29 and -0.19 respectively. Table 1 shows that the mean, standard deviation, skewness and kurtosis of the Interest in Learning of students at higher education are 68.22, 6.65, -0.88 and 0.86 respectively. Hair et al. (2010) considers data having skewness between -2 and +2 and kurtosis between -7 and +7 as sufficiently normal. The skewness and kurtosis for the Digital Competency were -0.29 and -0.19 and -0.88 and 0.86 for Interest in Learning of students at higher education respectively fall within this threshold for sufficient normality.

Relationship between Digital Competency and Interest in Learning of students at higher education level

The relationship between Digital Competency and Interest in Learning of students at higher education for the total sample is found out using Pearson's product-moment of correlation. The details of result of

correlational analysis for the variables Digital Competency and Interest in Learning of students at higher education are given in Table 2.

Table 2

Coefficient of correlation between Digital Competency and Interest in Learning of students at higher education

Variables correlated	N	Value of r	Confidence interval	Level of significance	Percentage variance
Digital Competency and Interest in Learning	180	0.476	0.347-0.605	0.01	22.66

The value of coefficient of correlation between Digital Competency and Interest in Learning of students at higher education is 0.476. The value is far higher than the value set for 0.01 significance level (0.1924). Hence, the obtained correlation is significant. This shows that there is significant positive correlation between Digital Competency and Interest in Learning of students at higher education. It indicates that any increase or decrease in Digital Competency of students at higher education will be followed by a corresponding increase or decrease in the Interest in Learning of students at higher education. The percentage variance shared between Digital Competency and Interest in Learning is 22.66%. That is, 22.66 % of the variance of Digital Competency is attributable to the variance in Interest in Learning students at higher education level.

Digital Competency as a predictor of Interest in Learning of students at higher education level

In this section, an attempt has been made to predict the Interest in Learning of students at higher education level in terms of Digital Competency. Prediction using Simple Regression technique is based on the assumption that at least one factor will lead to the variable to be predicted is present and measurable at the time of the prediction is made. Simple regression analysis is used to make prediction about score on one variable from the knowledge of score on another variable.

Table 3

Linear Regression model for interest in learning in terms of Digital Competency of students at higher education

Variable	Beta coefficient	Level of significance
Constant	42.07	0.00
Digital Competency	0.540	0.00
R square	0.2266	

The result shows that R square value of regression model is 0.2266. It means that 22.66 percent of variation in Interest in Learning is determined by the Digital Competency of students at higher education. The beta coefficient of Digital competency is 0.540. It means that if the digital competency of students at higher education is increased by one unit the interest in learning will be increased by 0.54 units. The regression equation can be written as;

Interest in Learning = 42.07 + 0.540 Digital Competency

Delimitation of the study

The present study is delimited to only students opted Social Science as their subject of specialization at higher education level.

Conclusion

It is essential to ensure that every student possesses a fundamental set of knowledge, skills, and attitude necessary for engaging with digital technologies ethically and effectively in the current landscape, as the world is running behind the rapid transformations in the field of technology. The incorporation of technology into education not only improves the teaching and learning experiences but also equips the students at higher education with the skills needed for the requirements of the contemporary workplace, where digital competencies are highly valued. Digital Competencies enable students to better achieve the desired outcomes during the learning process. Thus, they are more effective in finding, evaluating, and processing the information they use in their learning tasks. The findings from this study have several practical implications for policymakers, educators, and universities, such as evaluating the effectiveness of Digital Training, introducing digital literacy into the learning programs, training in different domains of digital competency, ensuring data security, etc.

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