

**A Study on the Relationship between Digital Literacy and Academic Achievement among First-Year Undergraduate Students in DAVV under the National Education Policy 2020**

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***Abstract***

In today's age of technology, it plays a significant role in the education system that has redefined how students learn and gather information about subjects. It is now essential to be digitally literate in order to successfully navigate through different digital forums for acquiring educational information. Given the current emphasis on technology in education according to the National Education Policy 2020, digital literacy is one aspect that has become significant with respect to enhancing academic success in higher education institutions. The present empirical research aims at finding the relationship between literacy and academic achievement among the first-year students enrolled in various programs in Madhya Pradesh in accordance with the National Education Policy 2020. Data was collected from 242 students through convenience sampling from the BBA, BCA, BCA, and BA programs in Devi Ahilya Vishwavidyalaya. The data was analyzed by using Karl Pearson's Coefficient of Correlation. The results showed that there exists a significant positive relationship between digital literacy and academic Achievement.

**Key Words :** Digital Literacy, Academic Achievement , NEP2020

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***Introduction***

The National Education Policy 2020 has also brought changes in the higher education system of DAVV University. Schools have adopted a "first" pedagogical approach. Thus, learners must become competent in computer skills and technologies for learning. The curriculum has been redesigned to incorporate learning and Academic Bank of Credits. Therefore, the learner's academic success depends on their competency.

In this research, digital literacy competency will be examined to determine its effect on students' academic performance through Scale of Digital Literacy, which was developed by Amin H. et al. (2022) based on 9C model developed by Chin in 2015. The 9C model is a

conceptual framework to explore literacy in the 21st century. It encompasses nine competencies Communication, Collaboration, Critical Thinking, Creativity, Citizenship, Curation, Computational Thinking, Cultural Understanding, Confidence

Since learners enrolled in the first year in Madhya Pradesh have little experience working with computer software, the credit-based curriculum can be challenging. The learner should collaborate, critically evaluate the gathered data from the internet, and ethically complete assignments with the help of Artificial Intelligence. This research seeks to identify the most important 9C competencies for student success under the National Education Policy 2020.

### ***Literature review***

Digital literacy is now becoming a critical factor determining students' success in today's digitally-oriented education system. The recent implementation of the National Education Policy of 2020 highlights the significance of incorporating digital tools and improving students' digital literacy to improve their learning experiences.

**Paul Gilster's early study (1997)** described digital literacy as the capability of understanding and using information generated by digital means. This concept was further explained by Yoram

**Eshet-Alkalai (2004)**, who viewed digital literacy as a blend of cognitive, technical, and socio-emotional capabilities for being productive in digital contexts.

**Ezster Hargittaim(2005)** discovered in her study that better digital capabilities help students efficiently access online information, thus facilitating their learning process. Similarly, **Mark Warschauer (2004)** noted that the proficiency in using digital technologies makes it easier for students to actively participate in the learning process.

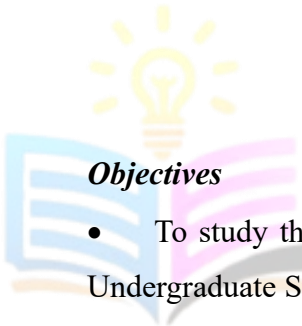
**Neil Selwyn (2016)**, the proper application of technological devices may significantly affect students' learning process and results. It should be noted that Indian scholars have proved the aforementioned statement as well, suggesting that digital literacy has a significant positive effect on students' academic performance, particularly when it comes to blended or online education.

Thus, according to the findings, digital literacy plays an important role in determining students' academic success, which makes it an important factor in modern education at all levels.

There is a significant number of gaps in the existing literature, despite the large volume of research on the topic. First of all, the majority of available studies are conducted in the context of developed countries while there is not enough empirical evidence regarding India, specifically, the state of Madhya Pradesh. Secondly, most studies examine general student populations rather than first-year undergraduates.

Also, prior studies tend to highlight the access to digital tools instead of focusing on the proficiency in digital literacy skills. Besides, no adequate research has been done using a correlation method to statistically analyze the connection between digital literacy and academic performance based on a scale.

This study thus intends to address this gap by looking at the connection between digital literacy and academic achievement among freshmen of DAVV, Indore, using a structured scale of 36 items.



### ***Objectives***

- To study the effect of Digital Literacy on Academic Achievement among First-Year Undergraduate Students in DAVV

### ***Hypotheses***

**H<sub>01</sub>** There is no significant relationship between digital literacy and academic achievement among students.

### ***Research Methodology***

The present study uses a quantitative research design along with descriptive and correlational research designs to assess the relationship between digital literacy and academic achievement amongst the students. The study takes place within the framework of the National Education Policy 2020. The population of the study includes the first-year undergraduate students of Devi Ahilya Vishwavidyalaya (DAVV), Indore. The sample size was taken to be 242 students who have been chosen through the process of convenience sampling and included students from different courses such as BBA, BCA, BCAM, and BA.

For data collection purposes, Scale of Digital Literacy , which was developed by Amin H. et al. (2022), Reliability of the scale is 0.894 , comprising of 36 questions with reference to a 5-point Likert scale used to measure the level of digital literacy amongst students while academic achievement was measured through the scores/CGPA of the students. Statistical methods like descriptive statistics and Pearson correlation were used for analyzing data with the help of the SPSS software to determine the relationship between the variables.

### ***Results and discussion***

Cronbach Alpha is used to test the reliability of Digital Literacy. The reliability of the data is .921, which is very good (see table 1).

According to (refer table 2)  $r=0.466$  and it is significant at .01 level. This shows that there is a positive correlation between Digital Literacy and Academic Achievement. Thus, we cannot accept  $H_0$  (There is no significant relationship between digital literacy and academic achievement among students). The result shows that high scores in Digital Literacy correlate with higher overall scores. This indicates that Digital Literacy significantly influences the Academic Achievement.

This result is consistent with the trend of using digital literacy in higher education institutions, especially after National Education Policy 2020, which highlights the importance of using technology for better learning experiences. With Digital Literacy, one can effectively search for information, evaluate online content critically, communicate efficiently, and use digital media for education purposes.

These findings are similar to previous research. As an illustration, Eszter Hargittai (2005) stressed the role of higher digital competencies which make learners able to use online information more efficiently in their academic performance. Another study conducted by Paul A. Kirschner and Pedro De Bruyckere (2017) showed that digital literacies help students cope with information overflow and learn using computer technologies effectively.

Mark Warschauer (2004) stressed the fact that digital competence helps students interact with educational materials and environments effectively, leading to high academic performance. As regards India, there are numerous researches, which demonstrated positive relationships between the variables studied in the current investigation and undergraduate students' academic performance.

In general, the results obtained during the research demonstrate a relatively strong connection ( $r = 0.466$ ) between digital literacies and academic performance. This suggests that digital

skills influence undergraduate academic performance significantly; however, it is only one of the factors contributing to this outcome.

Conclusively, the research under consideration has helped find a relatively high correlation between the two variables investigated which is important from the perspective of promoting digital literacy among college students.

### ***Conclusion***

This research was carried out with the objective of finding out whether there exists any significant relationship between digital literacy and academic performance among first-year students at Madhya Pradesh colleges under the framework of the NEP 2020 policy in India. It has been established from the results of this study that there does indeed exist a statistically significant relationship between digital literacy and academic performance.

The acceptance of the alternative hypothesis provides evidence of the significance of digital literacy as an academic determinant in higher education institutions. In this regard, this study provides evidence about the importance of incorporating digital literacy into academics, as stated by NEP 2020.

To conclude, digital literacy becomes a crucial skill for academic success in the present-day educational environment.

### ***Limitations and scope for future research***

The sample of participants in this study is restricted to the first-year undergraduate students selected from specific educational institutions located in the DAVV region. This might pose limitations on the applicability of the results since other factors might have influenced their digital literacy and academic achievements. Furthermore, the cross-sectional design adopted for this study will limit its ability to identify variations in the variables under investigation over an extended period. Also, the non-normal distribution of data collected may affect the accuracy of the statistics involved. Future studies might consider widening the sample size, selecting respondents from different geographical locations, considering students from all academic levels and specializations, and introducing additional variables such as motivation and socio-economic backgrounds.

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