

## **Impact of Digital Literacy on Academic Achievement Of Undergraduate Students In Kanchanpur District, Nepal**

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### **Abstract**

In the context of higher learning institutions, the concept of digital literacy has gained significant attention as a vital learning outcome in the modern era of technology-mediated learning environments, wherein students utilize technology extensively to achieve their academic objectives. While the prior literature established a strong relationship between academic achievement and digital literacy, there exists a lack of empirical evidence of the effect of digital literacy on the academic achievements of students in the context of the developing nations of the world, especially in the context of the nation of Nepal. In this context, the present study aims to investigate the effect of digital literacy on the academic achievements of undergraduate students in Kanchanpur District of Nepal. The descriptive-analytical method of research was used in the study, wherein the data were collected from a sample of 100 undergraduate students of Brixton College. The study found that the students have a moderate to high level of digital literacy skills, with a mean value of 3.95 on a five-point Likert scale. Moreover, the study established that the students have a higher level of skill in the practical application of technology than in the critical evaluation of online information. Finally, the study established a strong positive relationship between digital literacy skills and academic achievements of the students ( $r = .62, p < 0.01$ ). Despite the positive outcomes of the study, there have been several challenges in the application of the skills of digital literacy.

*Keywords: Academic Achievement, Digital Literacy, Digital Skills, Higher Education, Nepal, Semi-Urban Context, Technology Use, Undergraduate Students*

### **Introduction**

The fast-evolving nature of digital technologies has significantly impacted the evolution of higher education systems worldwide. Contemporary higher education institutions have begun to adopt digital platforms, online tools, and information and communication technologies to facilitate learning processes. In the context of the changing education system, digital literacy is considered a critical learning skill set for undergraduate students to efficiently access information, navigate digital environments, engage in digital communication processes, and execute academic activities.

Digital literacy is considered a complex multidimensional concept as it transcends the boundaries of technological competencies to encompass a broad range of learning skills, such as information literacy, media literacy, communication competencies, ethical competencies, and critical thinking competencies (Eshet-Alkalai, 2004; Martin & Grudziecki, 2006). Digital literacy is considered the integration of the technological, cognitive, and socio-ethical dimensions of learning processes, as explained by Martin &

Grudziecki (2006). Digital literacy is considered relevant to the changing learning processes with the concomitant expansion of blended learning processes in the higher education system.

A considerable volume of literature highlights the positive impact of digital literacy on improving student academic performance. For instance, empirical studies reveal that students with higher digital literacy skills are more likely to cope with scholarly information and demands and adapt to a digitally facilitated academic environment (Naz et al., 2022; Wu & Yuan, 2023). In addition to this positive impact on academic performance, digital literacy can also play a significant role in cultivating learning adaptability and self-directed learning skills, which are critical to student success. Despite the established positive impact of digital literacy on academic performance, this phenomenon does not occur uniformly across various contexts. In developing countries like Nepal, digital technology adoption in higher education is not uniform. For example, while higher education institutions in urban areas can enjoy better digital technology facilities compared to their counterparts in other areas, higher education institutions in semi-urban and rural areas face a host of challenges in accessing digital technology and institutional support (Acharya et al., 2021; Saud, 2021).

Kanchanpur District, located in the far-western region of Nepal, represents a model of a semi-urban academic environment, where digital technologies are increasingly being integrated into the processes of instruction. Though the students in the region increasingly use digital technologies for academic purposes, the mere availability of digital technologies does not guarantee their effective academic usage. A large percentage of the student population may not be equipped with the higher-order skills to critically think, use academic software, and be actively involved in the digital learning process.

Though digital literacy has been increasingly recognized as a fundamental component of higher education in Nepal, there has been a scarcity of empirical research on its impact on the academic achievement of the students. The existing research has mainly been conducted in the context of urban schools and teachers' digital literacy, leaving a large gap in the context of the academic environment in the semi-urban region of Kanchanpur. The findings of the research conducted in the context of the international environment cannot be generalized to the Nepalese context, as there is a large difference in terms of infrastructure and the level of digital inclusion.

This study fills the existing gaps by exploring the nexus between digital literacy and academic achievement among undergraduate students in the Kanchanpur District, Nepal. The study focuses on the access to digital technologies, the level of digital literacy, and the usage of digital technologies among the students. This study aims to generate localized evidence, thus enriching the literature and providing valuable insights into the significance of digital literacy in the context of higher education in a semi-urban environment.

## Literature Review

Digital literacy has experienced significant changes and transformations, from a narrow focus on basic technical skills to a broader and more complex definition. Previous definitions of digital literacy emphasized basic technical skills related to computer and technology use. Conversely, more contemporary definitions of digital literacy have emphasized the interrelation between cognitive, social, and ethical skills necessary for participating effectively in digital environments. This definition of digital literacy highlights not only the basic technical skills related to using technology but also the skills related to critical thinking, communication, ethical participation, and digital production, as emphasized by Eshet-Alkalai (2004) and Martin and Grudziecki (2006).

In the context of higher education, there is a growing recognition of the value of digital literacy as a skill that enables a variety of academic tasks, from information seeking and academic research to collaboration and digital communication. Digital literacy is also seen as being related to theoretical perspectives such as self-regulated learning and constructivist learning.

A considerable body of empirical literature has established a positive relationship between digital literacy skills and students' academic achievements. To cite an example, a systematic review of literature carried out through a meta-analysis study by Li et al. (2025) found a moderate positive relationship between students' digital literacy skills and their academic achievements at different levels of education. In addition, it is also evident that digital literacy skills play a vital role in promoting higher-order cognitive processes, which have a substantial impact on students' academic achievements. In this context, it is relevant to refer to the study carried out by Getenet et al. (2024), wherein it was found that students with high levels of digital literacy skills tend to exhibit higher levels of self-efficacy in online learning environments, which is a major factor that influences students' academic achievements.

Another recent trend in the scholarly literature has been the examination of the channels through which digital literacy impacts academic performance. The research suggests that digital literacy enables the adaptability of students to the virtual learning environment and enhances the self-regulation capacity of the students, which are two important predictors of academic performance. In addition, students who have high levels of digital literacy have a higher probability of engaging in informal learning activities, which may positively impact their academic self-efficacy and, in turn, mediate the relationship between digital literacy and academic achievement (Frontiers in Education, 2025). This implies that the relationship between digital literacy and academic performance is bidirectional, affecting the skill, motivational, and cognitive aspects of learning.

Although the relationship has been found to be positive, the impact of digital literacy is mediated by contextual factors. Access to reliable technological infrastructure, institutional access, and the quality of the design have been identified as important contextual factors mediating the relationship between

digital literacy and its impact (Timilsena et al., 2025). In developing countries, the contextual differences have been found to be more pronounced. The access gap is still a challenge.

In the Nepalese scenario, these challenges would be further complicated by the availability of digital resources, opportunities for structured digital literacy development, and the institutional readiness levels (Acharya et al., 2021; Saud, 2021). Previous research on digital literacy in Nepal has primarily focused on the integration of technology and teachers' digital literacy, while there is a need to focus more on students' digital literacy and its influence on academic performance. Acharya et al. (2021) have pointed out the challenges faced in implementing emergency remote teaching, while Saud (2021) has emphasized the role of teachers' digital literacy, which indicates the systemic nature of digital learning.

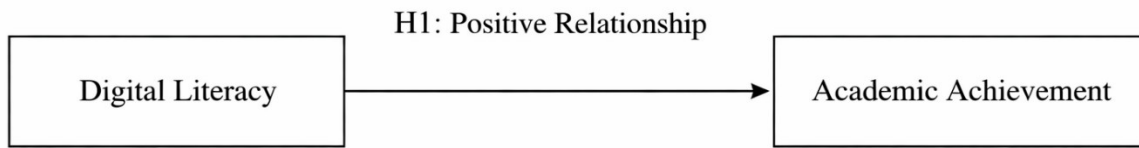
Furthermore, the diverse approaches to the conceptualization and measurement of digital literacy, as well as the socio-economic and contextual factors, restrict the scope for generalizing the findings from developed countries to other countries, such as Nepal, as suggested by Li et al. (2025). Above all, there is a lack of empirical research that focuses specifically on the role of digital literacy in the academic performance of undergraduate students living in the semi-urban regions, such as Kanchanpur District, Nepal.

In this regard, the current research aims to explore the relationship between digital literacy and academic performance from the perspectives of undergraduate students living in the Kanchanpur District, Nepal. The research aims to make a significant contribution to the body of knowledge by exploring digital literacy from a unique academic setting.

### **Conceptual Framework**

The conceptual framework of the study is predicated upon the assumption that digital literacy is a key determinant of students' academic success in technology-mediated learning environments. In this study, the theoretical perspectives of digital literacy (Eshet-Alkalai, 2004; Martin & Grudziecki, 2006) have been adopted, in addition to the theoretical perspectives of self-regulated learning. In the context of the proposed study, the independent variable is the students' level of digital literacy, whereas the dependent variable is the students' level of academic achievement. It is assumed that there is a link between the level of students' academic achievement and their level of digital literacy. This assumption is predicated upon the empirical findings of prior studies that have established a positive link between students' level of digital literacy and academic achievement (Li et al., 2025; Getenet et al., 2024).

In this context, the proposed study hypothesizes a direct and positive relationship between the level of students' academic achievement and their level of digital literacy.



Source: *Developed by the author based on Eshet-Alkalai (2004); Martin & Grudziecki (2006); Li et al. (2025); Getenet et al. (2024).*

Based on this conceptualization, the study proposes the following hypothesis:

*H1: Digital literacy has a significant positive relationship with academic achievement among undergraduate students.*

## **Methodology**

This study used a quantitative cross-sectional research design to investigate the relationship between digital literacy and academic achievement among undergraduate students in the Kanchanpur District of Nepal. This research design was considered appropriate for the study because it allows the examination of the existing conditions and the relationship between the variables. In addition, it does not involve any experimental manipulation of the variables. This makes it the most appropriate research design for the study. This study was carried out at Brixton College in the Kanchanpur District, a semi-urban area in the far western part of Nepal. The target population for the study was the undergraduate students who were pursuing different academic courses in the institution. This population was considered the most appropriate for the study because the undergraduate students were actively using digital technology in the academic environment.

In this study, a total of 100 undergraduate students formed the subject population. This was an acceptable figure for a small-scale study with a focus on establishing trends and relationships in a particular study environment. A non-probability convenience sampling method was used in this study. This is because of the constraints and challenges involved in collecting data, which were beyond the researcher's control. Despite the challenges associated with convenience sampling, it is an important method in education research. Structured questionnaires were used as a data collection method in this study. Questionnaires have been used in many social science research endeavors. This study used a structured questionnaire based on the researcher's knowledge of the subject and other literature on digital literacy (Eshet-Alkalai, 2004; Martin & Grudziecki, 2006; Naz et al., 2022). A questionnaire had four main sections: demographic information, accessibility of digital devices and internet facilities, digital literacy skills, and academic performance.

Digital literacy was considered as a multidimensional construct and was measured through a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement items included

different dimensions of digital literacy, such as the capacity to search and retrieve scholarly information, evaluate the credibility of digital sources, use academic websites or learning management systems, use digital tools such as word processors or presentation tools, or use digital media to communicate effectively. The digital literacy score was calculated as the average of all the relevant items.

Academic achievement was measured through the use of perceptual measures instead of actual academic records. The items included students' perceptions of their grasp of the course material, efficiency in completing academic tasks, academic engagement, or actual academic performance. Although the use of such data may lead to some biases, the use of such a method was considered appropriate due to the unavailability of actual academic records and its appropriateness to the study to understand the subjective learning experience of the students through digital media.

In order to achieve content validity, the questionnaire items were carefully aligned with the digital literacy frameworks and evaluated for clarity, appropriateness, and alignment with the research objectives. Where necessary, the items were modified to eliminate ambiguities. A piloting phase was conducted before the actual research to evaluate the clarity and appropriateness of the questionnaire. The findings from this phase were incorporated into the final questionnaire.

The reliability of the measurement scales was evaluated to assess their consistency. The findings revealed that the measurement scales were reliable, as indicated by the fact that the alpha values obtained were well above the standard 0.7. This implies that the items used to measure digital literacy and academic performance were consistent.

Data collection was carried out by using both online and offline methods, as it was believed that it would increase the number of participants. For online data collection, Google forms were used, while printed forms were distributed among students who did not have internet access. The purpose of the study was explained to the participants before data collection, and informed consent was obtained from all the participants.

Data analysis was carried out by using statistical methods with the help of statistical tools. Descriptive analysis was performed by using frequency, percentage, mean, and standard deviation to analyze the data regarding demographic factors, availability of digital resources, and digital literacy level. To test the proposed hypothesis (H1), Pearson correlation analysis was performed between digital literacy and academic achievement. The significance level was set at  $p < 0.01$ . This method of analysis is suitable for checking the correlation between two variables in non-experimental settings.

The methodological framework offers a framework for assessing the level of digital literacy among undergraduate students and its correlation with perceived academic achievement.

## Results

This section presents the empirical findings of the study based on the objectives of the research. The findings are presented based on thematic domains of the study, including demographic characteristics, accessibility of digital tools, levels of digital literacy, patterns of digital tool usage, perceived academic impacts, existing challenges, and the relationship between digital literacy and academic achievement. Descriptive and inferential statistics are employed to provide a comprehensive interpretation of the results.

### Demographic Profile of Respondents

The participants included 100 undergraduate students, which is considered adequate to carry out descriptive statistical analysis. Table 1 displays the gender composition of the participants, which is relatively balanced with 54% males and 46% females.

In relation to the participants' ages, the majority of the participants (68%) belonged to the 18-21 years old category, which is the typical range of the undergraduate student population. The 22-25 years old category was represented by 28% of the participants, whereas 4% of the participants belonged to the above 25 years old category. In relation to the participants' academic year level, the results indicated a relatively balanced composition with 33% participants from the first year, 35% from the second year, and 32% from the third year.

**Table 1**

*Demographic Characteristics of Respondents (N = 100)*

Characteristic	Category	Frequency	Percentage
<b>Gender</b>	Male	54	54.0%
	Female	46	46.0%
<b>Age Group</b>	18–21 years	68	68.0%
	22–25 years	28	28.0%
	Above 25 years	4	4.0%
<b>Year of Study</b>	1st Year	33	33.0%
	2nd Year	35	35.0%
	3rd Year	32	32.0%

*Source: SPSS*

### Access to Digital Tools and Internet Services

Table 2 illustrates the findings regarding students' access to digital devices. The results indicate that students generally have access to basic digital devices. For instance, a vast majority, 92%, own a

smartphone, while 64% own a laptop or a tablet device. In addition, regarding internet access, 81% of students reported accessing the internet daily, while 19% reported inconsistent internet access. Although students generally have access to the internet, the fact that a significant number, 19%, lack consistent internet access poses a significant issue. Moreover, 77% of students play a significant role in students' academic processes. However, the fact that some students lack devices and internet connectivity might influence the level of their engagement with digital devices.

**Table 2**

*Access to Digital Tools and Internet (N = 100)*

<b>Indicator</b>	<b>Yes</b>	<b>No</b>
<b>Owns a Smartphone</b>	92	8
<b>Owns a Laptop/Tablet</b>	64	36
<b>Has Daily Access to Internet</b>	81	19
<b>Uses Internet for Academic Purposes Frequently</b>	77	23

*Source: SPSS*

### **Levels of Digital Literacy**

Descriptive analysis results of the digital literacy dimensions measured on a five-point Likert scale are presented in Table 3. As shown in the results, the digital literacy level of the students is generally moderate to high, as the range of the mean scores varies from 3.61 to 4.28. For instance, the highest digital literacy score is observed in the use of digital productivity tools such as word processors or presentation tools (M = 4.28, SD = 0.55). Moreover, the digital literacy score is also high when the students use digital tools to search and retrieve academic information (M = 4.12, SD = 0.68). In addition to these digital literacy dimensions, the digital communication skills of the students also show a high digital literacy score compared to the others (M = 3.98, SD = 0.72). However, the digital literacy score is lower when the students use academic platforms (M = 3.75, SD = 0.81) and when they evaluate the credibility of the information available on the internet (M = 3.61, SD = 0.87). The overall digital literacy score is 3.95 (SD = 0.75).

**Table 3**

*Descriptive Statistics of Digital Literacy Indicators (N = 100)*

<b>Digital Literacy Item</b>	<b>Mean</b>	<b>SD</b>
<b>Ability to Search &amp; Retrieve Academic Information</b>	4.12	.68

<b>Use of Learning Management/Academic Platforms</b>	3.75	.81
<b>Ability to Evaluate Credibility of Online Sources</b>	3.61	.87
<b>Use of Digital Tools (Word, PPT, Spreadsheets)</b>	4.28	.55
<b>Use of Digital Communication Tools (email, forums)</b>	3.98	.72

Source: SPSS

### Patterns of Digital Tool Usage for Academic Purposes

Table 4 shows the frequency of students' engagement in various forms of digital academic activities. From the table, it is evident that students extensively use digital tools for information-related activities. In particular, the majority of students (76%) reported frequent engagement in the use of digital tools for finding academic information. Conversely, only a small percentage of students (4%) reported rarely using the digital tools for finding academic information. Similarly, the majority of students (76%) reported frequent engagement in the use of digital tools for reading academic materials. This implies that digital platforms form the major source of academic learning materials. In terms of the submission of assignments, the majority of students (67%) reported frequent engagement in the use of digital tools. Conversely, a small percentage of students (9%) reported rarely engaging in the submission of assignments through the use of digital tools. In terms of engagement in online academic forums, the majority of students (58%) reported frequent engagement. Conversely, 14% of students reported rarely engaging in online academic forums. This implies that students are comfortable engaging in the use of digital tools for individual academic activities. However, students' engagement in interactive forms of digital learning is relatively low.

**Table 4**

*Frequency of Digital Tool Usage (N = 100)*

<b>Digital Activity</b>	<b>Very Often</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
<b>Searching for Academic Information</b>	34	42	20	3	1
<b>Reading Digital Course Materials</b>	31	45	19	4	1
<b>Submitting Assignments Online</b>	29	38	24	7	2
<b>Participating in Online Academic Forums</b>	22	36	28	10	4

Source: SPSS

### Perceived Impact of Digital Literacy on Academic Achievement

Table 5 shows the perceptions of students regarding the contribution of digital literacy in enhancing academic performance. The results show a positive perception of all aspects of digital literacy. The

highest score was recorded by the understanding of course materials ( $M = 4.25$ ,  $SD = 0.61$ ), followed by the ability to complete assignments ( $M = 4.18$ ,  $SD = 0.67$ ). A relatively higher score was recorded by increased academic engagement ( $M = 4.03$ ,  $SD = 0.74$ ). Although slightly low, the perception of students regarding the contribution of digital literacy in enhancing grades was still very positive ( $M = 3.96$ ,  $SD = 0.82$ ). The overall mean score of 4.10 ( $SD = 0.71$ ) shows a strong consensus among students regarding the contribution of digital literacy in enhancing their academic performance.

**Table 5**

*Students' Perceptions of Digital Literacy and Academic Achievement (N = 100)*

<b>Perceptual Statement</b>	<b>Mean</b>	<b>SD</b>
<b>Digital literacy helps me understand course materials better</b>	4.25	.61
<b>Digital skills improve my ability to complete assignments</b>	4.18	.67
<b>Use of digital tools increases my engagement in study</b>	4.03	.74
<b>Digital literacy contributes to better grades</b>	3.96	.82

Source: SPSS

### **Challenges in Digital Literacy Application**

Table 6 indicates the major challenges faced by the students in the practical application of their digital literacy skills for academic purposes. The major challenge faced by the students was the inconsistent nature of the internet, which accounted for 56% of the responses. Further, the fact that 49% of the students identified the lack of formal training in digital literacy skills as a major challenge indicates that the majority learned on their own. In addition, the fact that 37% of the students identified the lack of support, such as access to computer labs and relevant software, indicates that some challenges exist at the institutional level. Moreover, the fact that 28% of the students identified the limited access to modern digital technologies, such as laptops, indicates some level of inequality. This indicates that despite the high level of digital literacy skills, there are challenges in the practical application of the skills.

**Table 6**

*Reported Challenges in Applying Digital Literacy (N = 100)*

<b>Challenge</b>	<b>Frequency</b>	<b>%</b>
<b>Unstable Internet Connectivity</b>	56	56.0%
<b>Lack of Formal Digital Literacy Training</b>	49	49.0%
<b>Insufficient Institutional Support (labs, software)</b>	37	37.0%
<b>Limited Access to Advanced Devices (e.g., laptops)</b>	28	28.0%

Source: SPSS

### Relationship Between Digital Literacy and Academic Achievement

Pearson correlation analysis was carried out to test the proposed hypothesis (H1) and establish the relationship between digital literacy and academic achievement. From the results shown in Table 7, it is evident that the correlation coefficient between the two variables is 0.62. This implies a positive relationship between the two variables. In addition, the correlation is statistically significant at the 0.01 level.

This implies that the more digital literacy a student is exposed to, the better the academic performance. This implies that the relationship between the two variables is not by chance but rather a significant relationship. Therefore, the proposed hypothesis (H1) is accepted since the study established a positive relationship between digital literacy and academic achievement.

**Table 7**

*Correlation Between Digital Literacy and Academic Achievement (N = 100)*

Variables	1	2
1. Digital Literacy		.62**
2. Perceived Academic Achievement	.62**	

Note: \*\*p < .01

Source: SPSS

### Discussion

The major aim and objective of the study was to assess the association between digital literacy and academic achievement among undergraduate students in the Kanchanpur District, Nepal. The findings have indicated that the general trend among the students is to exhibit moderate to high digital literacy skills, and they believe that the skills contribute to their academic achievement. This supports the general scholarly perspective on the significance of digital literacy skills among university and college students, especially in the context of the learning environment (Eshet-Alkalai, 2004; Martin & Grudziecki, 2006). A major observation from the study findings is the difference between digital access and digital literacy. The findings have indicated that although the majority of the students have access to digital technologies, such as access to a smartphone (92%) and the internet (81%), these do not necessarily contribute to their academic achievement. This observation supports the argument that academic achievement is more likely to be associated with the ability to use digital technologies, especially in the context of accessing learning materials, academic software, and communication (Naz et al., 2022).

Moreover, the results indicate that students possess a high level of operational proficiency in the use of digital tools, especially those related to productivity applications. However, the slightly low performance in the evaluation of the credibility of the information obtained from the Internet suggests that the development of higher-order cognitive skills is still in the early stages. This supports the theoretical position proposed by Eshet-Alkalai (2004) that describes the concept of digital literacy as a construct that includes not only the technical skills but also the critical and cognitive aspects. In most developing educational contexts, including the current study, students may develop basic digital skills through informal learning, whereas the development of more complex skills in evaluating the credibility of the information obtained from the Internet may not have been emphasized adequately. The statistical results offer robust empirical evidence to support the proposed hypothesis (H1) that a significant positive correlation exists between digital literacy and academic achievement. Indeed, the statistical results show a positive correlation between the two variables, which is statistically significant at less than 0.01. The correlation coefficient obtained is 0.62. This suggests that the proposed hypothesis holds, and digital literacy is a moderately strong predictor of academic achievement. This finding supports the results obtained by Wu and Yuan (2023) regarding the direct and indirect impact of digital literacy on academic achievement through learning adaptability. Moreover, the results obtained through the meta-analysis study proposed by Li et al. (2025) confirm the significance of the proposed hypothesis that digital literacy is a crucial determinant of academic achievement in higher education contexts. This study provides evidence that the proposed hypothesis holds in the context of the semi-urban educational environment.

At the same time, the study also identified various contextual barriers that influence the effective use of digital literacy. Internet connectivity (56% of the total respondents) and the lack of formal digital literacy training (49%) emerged as the most important barriers in the context of the study. These barriers are associated more with the semi-urban educational context of Nepal than with the individual students' lack of digital literacy skills. Students in Kanchanpur are more likely to be forced to rely on self-learning than those in well-equipped schools in urban areas, who are more likely to achieve higher-level digital literacy skills.

In terms of the broader context, the study contributes to the understanding of digital literacy in resource-constrained contexts by showing that, unlike what the literature commonly suggests, partial access to digital technologies is possible without negatively impacting students' academic achievement as long as they possess adequate digital literacy skills.

In all, the discussion serves to reinforce the fact that digital literacy holds a significant position in influencing academic outcomes for undergraduate students, but this is subject to individual skills and environmental factors. As such, there is a need to look beyond the provision of technological facilities for enhancing digital literacy, particularly for semi-urban higher education institutions.

## Conclusion

The purpose of this study was to examine the relationship between digital literacy and academic achievement among undergraduate students in the Kanchanpur District of Nepal. The study findings reveal that students generally have moderate to high levels of digital literacy and recognize the significance of digital literacy in assisting them with their academic performance. Furthermore, the study findings reveal a statistically significant positive correlation between digital literacy and perceived academic achievement ( $r = 0.62, p < 0.01$ ). This reveals that there is a positive relationship between digital literacy and academic engagement/achievement.

The study contributes to the body of knowledge by examining the relationship between digital literacy and academic achievement in a semi-urban setting, which has not been extensively explored in the literature. This study extends previous research on the topic, which has been conducted in more developed or urban settings. This study also reveals that the positive relationship between digital literacy and academic achievement is also evident in resource-constrained education settings such as the Kanchanpur District.

From a practical point of view, the study findings underscore the significance of higher learning institutions moving beyond the provision of access to digital technologies and towards the development of comprehensive digital literacy competencies among their student base. The integration of digital literacy into the academic curriculum has the potential to contribute to the development and enhancement of critical thinking skills, learning engagement, and academic achievement among students.

In spite of the significance and value of the study, some limitations may be identified. The study findings may be limited by the fact that the data collected may be based on self-reports, and the fact that the study employed a convenience sampling method. Moreover, the study design may not be sufficient to enable the establishment of cause and effect relationships between the variables. Future studies may seek to address the limitations by adopting longitudinal study designs. In conclusion, the study findings underscore the significance and value of digital literacy as a critical predictor of academic achievement in the context of the semi-urban higher learning environment, and the need to address structural challenges that may affect its usage.

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