



DIGITAL LITERACY AND THE ENHANCEMENT OF POSITIVE SELF-DEVELOPMENT AMONG UNIVERSITY FRESHERS IN DELTA STATE

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Article history:	Abstract:
Received: 14th April 2026 Accepted: 11th May 2026	Introduction The study examined digital literacy and its role in enhancing positive self-development among university freshers in Delta State. Digital literacy encompasses not only basic technical skills but also critical thinking, the ethical use of technology, and the ability to adapt rapidly to evolving digital environments. Positive self-development refers to the cultivation of attributes such as self-efficacy, self-regulation, motivation, and mental well-being, which enable students to thrive academically and personally. Methodology The study used a survey design and targeted 20,000 university freshmen from Delta State University, Abraka; University of Delta, Agbor; University of Science and Technology, Ozo; and Osadebe University, Asaba. At first, a stratified sampling techniques was used to select group of respondents from each university. Secondly A simple random sampling technique was used to select a representative sample of 1,000 students from this population. Data collection was carried out through a self-structured questionnaire titled "Digital Literacy and the Enhancement of Positive Self-Development Questionnaire (DLEPSQ)." To establish reliability, the instrument underwent a test-retest in a pilot study, yielding a coefficient index of 0.86. Responses were measured using a four-point Likert scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The researcher personally distributed 1,000 questionnaires to the selected participants. For data analysis, both descriptive statistics (simple percentage, mean scores, and standard deviation) and inferential statistics (coefficient of determination, with a benchmark of 2.50 and above considered agree and 2.49 below considered disagreed) were employed to address research questions and test hypotheses. Findings Findings revealed that digital literacy helps build self-confidence and foster learning autonomy. It shows that positive attitudes toward digital technology



and digital literacy contribute to higher self-efficacy among university freshers, influencing their online learning engagement.

Conclusion

In conclusion, digital literacy significantly enhances positive self-development among university freshers by equipping them with critical skills to navigate the digital world effectively. It fosters independent learning, critical thinking and responsible online engagement, enabling students to access educational resources, collaborate and build digital competence. It equips freshers with essential digital skills that foster academic success, boost self-efficacy and promote responsible digital identity management.

Keywords: *Digital Literacy, Positive Self-Development, Freshers, Nigeria.*

INTRODUCTION

The swift progression of Information and Communication Technologies (ICT) has revolutionized higher education, highlighting the need for students to develop digital literacy skills to effectively navigate contemporary academic and professional landscapes (Naz et al., 2022). Digital literacy is defined as the capacity to use digital tools for communication, collaboration, problem-solving, and innovation in a competent and critical manner. This skill set is increasingly essential for university students, especially first-year students adjusted to the academic setting. Enhancing digital literacy among newcomers can significantly boost their self-development, improving areas such as academic self-efficacy, mental health, engagement, and overall personal growth (Abbas, Hussain, & Rasool, 2019).

Today's society demands individuals with the skills and knowledge to utilize new technologies and actively engage in their communities' economic, social, and cultural activities (Shopova, 2014). The term "digital literacy," first coined by Gilster in 1997, referred to the ability to comprehend and utilize information presented via computers from various sources. Over time, scholars have broadened the definition to encompass not just practical technological skills but also cognitive and attitudinal dimensions (Martin, 2016; Tang and Chaw, 2016; Bawden and Robinson, 2019).

However, given the rapid development and widespread use of digital technologies, concepts such as critical thinking, awareness of security, and a sense of responsibility have been integrated into the notion of digital literacy (Chan et al., 2017; Brown et al., 2020). Particularly with the swift advancements in generative AI (Gen-AI), exemplified by ChatGPT, ethical concerns around data misuse and accountability have gained prominence, prompting a shift towards a more comprehensive understanding of digital literacy. As a result, Gen-AI is now seen as a vital component of students' digital literacy (Bender, 2024).

Digital literacy goes beyond mere technical abilities and includes critical thinking, ethical technology use, and adaptability to fast changing digital landscapes. It comprises various facets such as

proficiency with digital tools and platforms, effective information sourcing and usage from digital channels, online communication and collaboration skills, responsible digital citizenship, and problem-solving in digital contexts (Xiaoquan, 2024). According to Gutiérrez-Ángel et al. (2019) digital literacy is essential for success in the increasingly common blended and online learning environments in higher education. For university freshmen—digital natives who may still lack advanced digital skills for academic engagement—digital literacy is critical for both engagement and achievement.

In the same vein, positive self-development refers to nurturing qualities such as self-efficacy, self-regulation, motivation, and mental wellbeing that empower students to excel academically and personally. Freshers often face struggles during their transition to university life due to academic pressures and socio-economic challenges (Dele, 2020). Cultivating positive self-development is vital for building confidence in academic abilities, which directly correlates with better academic performance. It involves managing learning strategies and adapting to new settings, especially in digital contexts, and coping with stress and anxiety can be facilitated through digital literacy via access to resources and support. Participation in academic and extracurricular activities can also be enhanced through digital platforms (Ademola, 2018).

Sequel, digital literacy plays a key role in fostering positive self-development by equipping students with essential skills to tackle academic challenges, access resources, and engage in meaningful learning experiences. Bender (2024) suggests that digital literacy increases confidence in using technology for academic purposes, which leads to less procrastination and improved performance. It also allows students to adapt to blended learning environments and manage their pace of learning, enhancing their academic results. While digital literacy can alleviate anxiety by providing online resources and support systems, an overreliance on technology may lead to issues like information overload (Oh, et al, 2021). A positive attitude toward digital technology and higher digital literacy levels correlate with increased



engagement—socially, collaboratively, cognitively, behaviorally, and emotionally in teaching and learning (Dele, 2020).

Digital literacy, ICT skills, digital competence and digital citizenship these four concepts have emerged prominently in educational policy, curriculum development, and scholarly research since the early 2000s, driven by the rapid proliferation of digital technologies. However, literature consistently highlights conceptual overlap, interchangeable usage and definitional ambiguity, stemming from differing disciplinary origins. Empirical studies reveals that while all relate to effective engagement with digital technologies, they differ in scope, emphasis (technical vs. cognitive/ethical), level of analysis (individual skills vs. societal participation), and normative orientation. ICT skills are the narrowest and most operational; digital literacy adds critical evaluation and creation; digital competence provides a holistic, attitudinal framework; and digital citizenship shifts to ethical norms, rights/responsibilities, and civic participation in digital society (Falloon, 2020).

ICT skills represent the most foundational, technical layer. The practical abilities required to operate digital devices, software, and networks for basic tasks. Digital literacy expands beyond technical operation to encompass cognitive, evaluative, and creative abilities for engaging with digital information. It is frequently framed as a “new literacy” analogous to traditional reading/writing but in digital contexts. Digital competence is a more comprehensive, multidimensional construct, often operationalized through policy frameworks. It integrates knowledge, skills, and attitudes for confident, critical, and responsible digital engagement across life domains. Digital citizenship shifts emphasis to normative, ethical, and participatory dimensions—how individuals act responsibly as members of digital communities. It is often described as an “umbrella concept” (Dele, 2020).

Yuan et al. (2024) conducted a cross-sectional survey of 659 medical students (mean age 21.0 years) across seven colleges in Pakistan. Using validated scales (Digital Literacy Scale, Academic Self-Efficacy Scale, and Academic Procrastination Scale), they found that digital literacy positively and significantly influenced academic self-efficacy ($\beta = 0.55$, $p < 0.001$; correlation $r = 0.62$, $p < 0.001$), explaining 38% of variance in self-efficacy. Academic self-efficacy, in turn, mediated reductions in procrastination. The authors describe digital literacy as a “catalyst for academic confidence,” supporting positive self-development by building students’ belief in their capabilities during demanding programs.

STATEMENT OF THE PROBLEM

The transition to university life presents significant challenges for freshers, including adapting to rigorous academic demands, navigating new social environments, and managing personal growth. In Delta State Universities, these challenges are compounded by contextual factors such as limited access to technological infrastructure, socio-economic constraints, and varying levels of digital readiness among students. While digital literacy encompassing the ability to effectively and critically use digital tools for academic and personal purposes is increasingly essential in modern higher education, many freshers lack the advanced digital skills required to thrive in blended learning environments. There is always the presumption that all freshers are digital literates. As such, they do not require digital literacy as part of their orientation and learning process. This digital literacy gap hinders their academic performance, self-efficacy, and overall positive self-development, which includes self-regulation, mental well-being, and engagement. However, inadequate digital literacy can lead to reduced academic self-efficacy, poor adaptation to digital learning platforms, and increased stress, particularly in resource-constrained settings like Delta State.

Research Questions

The following research questions were raised in the study:

1. How does digital literacy enhance positive self-development among university freshers in Delta State?
2. What are the approaches to foster digital literacy for the enhancement of positive self-development among university freshers in Delta State?

Hypotheses

The following null hypotheses were formulated in the study:

1. There is no significant difference between digital literacy and the enhancement of positive self-development among university freshers in Delta State.
2. There is no significant difference between the approaches to fostering digital literacy and enhancing positive self-development among university freshers in Delta State.

REVIEW

Concept of Digital Literacy

The European Union identifies digital competence as one of the eight essential skills for lifelong learning, emphasizing its flexibility in enabling the acquisition of other key skills such as mathematics,



metacognition, and creativity, while also ensuring active engagement in society and the economy (European Parliament and the Council, 2006). Digital competence is defined as the confident and critical use of Information Society Technology (IST) for various purposes including work, recreation, and communication. The concept of digital literacy was introduced by Paul Gilster in 1997 in his book *Digital Literacy*, where he defines it as the ability to understand, appreciate, and utilize diverse information formats provided by computers.

Gilster (1997) argues against limiting digital literacy to merely knowing how to navigate the Internet, stressing the importance of evaluating and interpreting information. Through digital literacy, individuals can develop fundamental cognitive skills and competencies crucial for navigating and performing tasks within an interactive environment. This concept has been further expanded by other authors aiming to provide a comprehensive understanding of digital literacy as a blend of various literacy, rooted in computer and information skills that emphasize the evaluation of information alongside knowledge acquisition, supported by relevant attitudes (Bawden, 2018).

The definition of digital literacy has broadened to encompass a complete range of skills and competencies necessary for searching, assessing, and managing information in digital formats. Bawden (2018) views digital literacy as a framework that integrates various illiteracies and skills without needing to include all of them. Some scholars define digital literacy in relation to the skills and competencies required for effective use of the Internet and digital technologies (Martin, 2005; Cartelli, 2010; Ala-Mutka, 2011). Martin (2005) asserts that digital literacy encompasses a convergence of multiple literacies: IT literacy, information literacy, technological literacy, media literacy, and visual literacy, all of which have gained significance with the rise of digital environments. Authors with a similar view have shifted from focusing on specific skills to recognizing that literacy is a more integrative quality associated with applying skills and competencies to real-world tasks and problems (Martin, 2005).

However, by developing a range of necessary skills, learners can navigate various information channels and resources, gaining confidence in the accuracy, reliability, and precision of the information they obtain, which enhances their ability to take control of their own learning. Studies on digital literacy highlight the importance of moving beyond basic skills in using

information and digital tools, focusing on developing strategies for critical and effective use of these resources. Consequently, most researchers regard this literacy as a "continuum", where foundational skills are merely the first step, while the higher levels involve increased cognitive competence in applying literacy towards tasks, learning, creativity, and idea expression, alongside considerations of attitudes and social and cultural factors (Ala-Mutka, 2011).

However, empirical literature reveals that digital literacy (DL)—encompassing not only technical skills but also critical evaluation, information management, and ethical digital engagement—serves as a foundational enabler of positive self-development among university freshers. Positive self-development here encompasses enhanced academic self-efficacy, self-regulated learning (SRL), learning adaptation, reduced academic procrastination, psychological resilience, and overall mental well-being. These outcomes are particularly critical during the freshman transition, a period marked by heightened autonomy demands, digital-heavy coursework and identity formation amid new social and academic stressors (Öncül, 2021).

Digital Literacy and Enhancement of Positive Self-Development

Audrin & Audrin (2022) define digital literacy as the competency to locate, assess, create, and share information through digital technologies, which involves technical, cognitive, and socio-emotional skills. Positive self-development is marked by improved self-efficacy (belief in one's capabilities), self-regulation, intrinsic motivation, decreased procrastination, and overall psychological advancement (Farias-Gaytan et al., 2022). Digital literacy is a complex construct that integrates the skills necessary for navigating, evaluating, creating, and communicating within digital spaces, including the ability to critically assess online information, use technology ethically, and communicate effectively (Martínez-Alcalá et al., 2021).

However, positive self-development, founded in psychological theories, leads to improvements in self-efficacy, self-regulation, intrinsic motivation, decreased procrastination, and enhanced psychological empowerment. Digital literacy serves as a key factor in achieving these outcomes, especially in educational, professional, and personal domains (Nikou & Aavakare, 2021). Self-efficacy, the conviction in one's ability to accomplish specific tasks, is fundamental to positive self-development. Research shows that digital literacy significantly boosts self-efficacy, particularly in



academic environments. For example, Prior et al. (2023) found that university students with strong digital literacy skills expressed more confidence in handling online learning tasks like using learning management systems, performing research, and collaborating online. This confidence arises from mastery experiences aided by digital tools, which allow for skill enhancement and feedback (Gutiérrez-Ángel et al., 2019).

Nikou & Aavakare (2021) revealed that digital literacy mediates the link between technology use and academic performance, with self-efficacy helping to reduce procrastination behaviors such as task avoidance and ineffective time management. Beyond academia, digital literacy also cultivates creative self-efficacy, enabling individuals to innovate and address challenges in digital environments. In the same vein, Anas et al. (2022) found that students who hold positive views on digital tools showed greater creative confidence, leading to more active participation in collaborative and innovative projects. These results imply that digital literacy empowers individuals by strengthening their belief in their ability to successfully navigate complex digital landscapes, which is vital for personal development. Furthermore, digital literacy fosters self-regulated learning, an essential component of self-development, enabling individuals to manage information overload, minimize distractions, and engage deeply with content.

Research by Falloon (2020) highlighted that digitally proficient students demonstrate better self-control, reducing techno-stress related to technology overuse and improving focus in online learning settings. For instance, the ability to discern credible sources allows students to curate reliable information, alleviating cognitive overload and encouraging sustained engagement. Moreover, van Laar et al. (2020) found that employees with strong digital skills reported increased job satisfaction and adaptability, as they can effectively use digital tools to achieve career aspirations and innovate within their roles. This sense of independence promotes agency, fostering proactive behaviors and long-term personal growth.

Moreover, digital literacy enhances collaborative skills within virtual teams, contributing to a greater sense of connectedness and social self-concept. Recent initiatives have shown that targeted programs can significantly enhance the benefits of digital literacy on self-development. For example, gamified learning environments have proven effective in boosting perceived digital competence and creative self-concept. Findings by Tomczyk et al. (2024) indicate

that gamification heightened students' engagement with digital tools, increasing their confidence and drive to explore new technologies.

However, AI-driven personalized learning platforms adjust content to meet individual needs, which enhances self-efficacy and decreases procrastination. In the realm of medical education, training in digital literacy has effectively increased academic confidence. A study by Godsey et al. (2025) demonstrated that medical students who participated in digital literacy programs reported an uptick in self-efficacy and a reduction in procrastination, which was facilitated by their ability to navigate complex digital resources. Community based initiatives also help close the digital divide, empowering marginalized populations to utilize digital tools for health management, leisure, and ongoing education, thus promoting self-actualization Tomczyk, et al. (2024).

However, educational interventions and gamified platforms provide mastery experiences that build confidence in digital tasks. For instance, students who master digital research skills report higher academic self-efficacy, which mediates reduced procrastination. AI-driven systems further enhance self-efficacy by offering personalized feedback, reinforcing competence. Digital literacy training teaches individuals to manage information overload and distractions, fostering self-regulated learning. A study by van Laar, et al. (2023) found that digitally literate employees exhibited better self-control in workplace digital tasks, enhancing productivity and job satisfaction.

Moreover, gamification and personalized learning align with self-determination theory by promoting autonomy and competence, increasing intrinsic motivation. Community-based programs further enhance motivation by connecting digital skills to real-world applications, such as health or career advancement. Digital literacy fosters empowerment by enabling individuals to participate in digital societies, from online education to civic engagement. It interventions increased creative self-efficacy, empowering individuals to innovate and collaborate digitally. (Tomczyk, et al., 2024).

Chen (2025) surveyed 894 college students in China using structural equation modeling on scales measuring digital literacy, learning adaptation, online self-regulated learning, and academic achievement. Digital literacy directly and positively predicted academic achievement and indirectly through chain mediation: it enhanced learning adaptation, which



improved online self-regulated learning, ultimately boosting achievement. Self-regulated learning and adaptation are core components of positive self-development, helping freshmen manage independence and digital-heavy coursework.

Javier-Aliaga et al. (2024) examined 98 undergraduate university students in Peru (ages 18–29) in a correlational cross-sectional study. They reported a significant positive correlation between academic self-efficacy and digital competence (Spearman's $\rho = 0.438$, $p < 0.001$), with links across all DigComp 2.0 dimensions (e.g., information $\rho = 0.479$; problem-solving $\rho = 0.204$). No causal direction was tested, but the authors note that stronger digital skills may support self-efficacy by improving resource access and reducing academic stress—key for freshers building academic identity.

Öncül (2021) developed and piloted context-specific tools (self-assessment surveys, online tests, performance tasks) with first year university students across multiple cohorts. Freshmen demonstrated adequate basic DL but required targeted support for higher-order skills (e.g., critical evaluation, content creation). Low performers overestimated abilities, highlighting a metacognitive gap relevant to self-development. The study advocates multi-method assessment in freshers orientation to build realistic self-efficacy and prevent early disengagement.

Approaches to Foster Digital Literacy and Enhancement of Positive Self-Development

Incorporating digital literacy into formal education is a well-researched method. Curricula that integrate digital skills training covering areas like information evaluation, digital communication, and ethical technology use enhance students' ability to effectively engage with digital environments. According to Prior et al. (2023) structured digital literacy programs in higher education boost students' self-efficacy by offering hands-on experience with tools like learning management systems and research databases. These programs often feature project-based learning, where students produce digital content (like presentations and blogs), which cultivates mastery experiences that improve confidence and decrease academic procrastination.

Similarly, Nikou and Aavakare (2021) found that digital literacy training in universities enhanced self-regulated learning by equipping students to handle online distractions and evaluate credible resources. Additionally, gamification applying game-like elements

in nongame settings proves effective in developing digital literacy while also increasing motivation and engagement. Gamified platforms use rewards, challenges, and interactive tasks to teach digital skills. Tomczyk, et al. (2024) noted that gamified learning environments boosted students' perceived digital competence and creative self-efficacy through activities such as coding challenges and digital storytelling. These settings promote intrinsic motivation, consistent with self-determination theory's focus on autonomy and competence, encouraging proactive exploration of digital tools. Gamification likewise minimizes procrastination by making learning enjoyable and enhancing students' autonomy and engagement (Anas et al., 2022).

Furthermore, Artificial Intelligence (AI) technologies offer personalized methods for developing digital literacy by customizing content to meet individual needs. AI-driven platforms adjust learning materials based on users' skill levels, delivering targeted feedback and support. Falloon (2020) pointed out that AI-personalized learning systems improved students' self-efficacy by providing tailored pathways for mastering digital skills such as data analysis or cybersecurity. These systems also promote self-regulation by assisting learners in establishing goals, monitoring progress, and reflecting on their digital competencies.

Godsey et al. (2025) suggested that AI-driven digital literacy training significantly increased medical students' confidence in navigating health informatics systems, which in turn reduced procrastination and enhanced academic performance. Additionally, community initiatives aim to promote digital literacy and personal development among diverse groups, especially marginalized populations. These programs often prioritize practical applications, like utilizing digital tools for health management, financial literacy, and social engagement. Martínez-Alcalá et al. (2021) demonstrated that digital literacy workshops for older adults significantly improved their self-efficacy in using health applications, thereby enhancing their sense of agency and overall well-being. Community programs targeting low-income individuals work to close the digital divide by providing access to technology and training, which fosters empowerment and lifelong learning. Such initiatives encourage psychological empowerment by enabling participants to take part in meaningful digital activities, including online education and civic engagement.

Gutiérrez-Ángel (2022) reviewed 33 empirical studies (2010–2021) on digital literacy in university



settings. A consistent theme across the quantitative and mixed-methods literature was that digital literacy interventions and competencies are strongly associated with perceived and developed self-efficacy. Many studies measured self-efficacy as an outcome or mediator alongside digital skills, particularly in contexts of online learning and technology integration. The review highlights this link as a core focus in higher education research, applicable to freshmen navigating digital transitions. It is evident that digital literacy (DL) have a significant role in positive self-development among university freshers. However, Few studies track incoming freshers cohorts over time to examine how baseline digital literacy influences self-development trajectories amid the transition shock. Minimal research on how digital literacy impact self development among university fresher and this is the gap the study tends to fill.

METHODS AND MATERIALS

The study used a survey design and targeted 20,000 university freshmen from Delta State University, Abraka; University of Delta, Agbor; University of Science

and Technology, Ozoro; and Osadebe University, Asaba. At first, a stratified sampling techniques was used to select group of respondents from each university. Secondly A simple random sampling technique was used to select a representative sample of 1,000 students from this population. Data collection was carried out through a self-structured questionnaire titled "Digital Literacy and the Enhancement of Positive Self-Development Questionnaire (DLEPSQ)." To establish reliability, the instrument underwent a test-retest in a pilot study, yielding a coefficient index of 0.86. Responses were measured using a four-point Likert scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The researcher personally distributed 1,000 questionnaires to the selected participants. For data analysis, both descriptive statistics (simple percentage, mean scores, and standard deviation) and inferential statistics (coefficient of determination, with a benchmark of 2.50 and above considered agree and 2.49 below considered disagreed) were employed to address research questions and test hypotheses.

Results

Table 1: Response to digital literacy and enhancement of positive self-development among university freshers in Delta State

Digital literacy and enhancement of positive self-development	SA	A	D	SD	Mean	STD	Remark
Confident using digital tools for studies	233 (23.3%)	300 (30%)	210 (21%)	257 (25.7%)	3.16	.91	Agreed
Able to critically evaluate the credibility of online information	350 (35%)	298 (29.8%)	107 (10.7%)	245 (24.5%)	2.78	.82	Agreed
Using digital platforms helps express myself and build connections with others within and outside the university	400 (40%)	109 (10.9%)	131 (13.1%)	366 (36.6%)	2.98	.86	Agreed
The ability to effectively use digital technologies contributes positively to how I feel about my capabilities as a university student	189 (18.9%)	203 (20.3%)	300 (30%)	281 (28.1%)	2.40	.82	Disagreed



Mindful of how online activities might impact personal and academic image	92 (9.2%)	80 (8%)	302 (30.2%)	526 (52.6%)	2.48	.74	Disagreed
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Table 1 shows responses to digital literacy and enhancement of positive self-development among university freshers in Delta State. From the remark, the respondents agreed on items 1, 2, 3 and disagreed with items 4, 5.

Table 2: Response to approaches to foster digital literacy for the enhancement of positive self-development among university freshers in Delta State Universities

Approaches to foster digital literacy for the enhancement of positive self-development	SA	A	D	SD	Mean	STD	Remark
University-organized workshop and seminars on digital skills	400 (40%)	109 (10.9%)	131 (13.1%)	360 (36%)	3.23	.93	Agreed
Learning digital skills through peer monitoring or group projects	400 (40%)	322 (32.2%)	100 (10%)	178 (17.8%)	2.88	.87	Agreed
Embedding digital literacy skills within course content	292 (29.2%)	193 (19.3%)	285 (28.5%)	230 (23%)	2.48	.91	Disagreed
University initiatives addressing digital well-being	220 (22%)	502 (50.2%)	170 (17%)	108 (10.8%)	2.76	.81	Agreed
Easy access to university provided digital tools and resources	251 (25.1%)	249 (24.9%)	200 (20%)	300 (30%)	2.87	.80	Agreed

Table 2 presents the responses to approaches for fostering digital literacy to enhance positive self-development among university freshers in Delta State. From the remark, the respondents agreed on items 1, 2, 4, 5 and disagreed with item 3.

Table 3: Descriptive Analysis showing digital literacy and enhancement of positive self-development among university freshers in Delta State

Variables	N	X	STD	DF	P-value	Level of Sign	Decision
Digital literacy	1000	2.84	.78	2	0.020	0.05	Significant
Enhancement of positive self-development		2.88	.80				

Table 3 presents the descriptive analysis of digital literacy and enhancement of positive self-development among university freshers in Delta State. The statistics in the table showed mean scores of 2.84 and 2.88 respectively, standard deviations of .78 and .80. Since the p-value < 0.05, therefore the null hypothesis is rejected.

Table 4: Descriptive Analysis showing the approaches to foster digital literacy for the enhancement of positive self-development among university freshers in Delta State



Variables	N	X	STD	DF	P-value	Level of Sign	Decision
Approaches to foster digital literacy	1000	2.90	.82	2	0.012	0.05	Significant
Enhancement of positive self-development		2.76	.91				

Table 4 presents the descriptive analysis showing the approaches to foster digital literacy for the enhancement of positive self-development among university freshers in Delta State. The statistics in the table showed mean scores of 2.90 and 2.76 respectively, standard deviations of .82 and .91. Since the p -value < 0.05 , therefore the null hypothesis is rejected.

DISCUSSION OF FINDINGS

The study focused on digital literacy and enhancement of positive self-development among university freshers in Delta State. Findings revealed that digital literacy helps build self-confidence and foster learning autonomy. It shows that positive attitudes toward digital technology and digital literacy contribute to higher self-efficacy among university freshers: influencing their online learning engagement. However, many students are faced with transitional challenges in first year, university adjustment, uneven prior exposure to digital learning environments, overconfidence effects or institutional variability. In support of this, Anas et al (2022) noted that students with positive attitudes toward digital tools exhibited higher creative confidence, which enhanced their engagement in collaborative and innovative tasks. These findings suggest that digital literacy empowers individuals by reinforcing their belief in their ability to navigate complex digital environments, a critical component of personal growth. Sequel, digital literacy supports self-regulated learning, a key aspect of self-development, by equipping individuals to manage information overload, filter distractions, and engage deeply with content.

The study examined the approaches to foster digital literacy for the enhancement of positive self-development among university freshers in Delta State. It showed that university-organized training would help freshers to develop confidence in using digital tools for academic success. It will contribute to fresher's sense of belonging and self-development. Approaches such as self regulation, self-efficacy and well-being can enhance digital literacy by promoting effective online behavior, building confidence in using digital tools and reducing tech-related stress. These factors contribute to

improved digital literacy and psychological outcome. In collaboration, Prior et al. (2023) who asserted that integrating digital literacy into formal education is a widely studied approach. Curricula that embed digital skills training such as information evaluation, digital communication, and ethical technology use enhance students' ability to navigate digital environments effectively. Also, structured digital literacy programs in higher education increased students' self-efficacy by providing hands-on experiences with digital tools, such as learning management systems and research databases. These programs often incorporate project-based learning, where students create digital content (e.g., presentations, blogs), fostering mastery experiences that boost confidence and reduce academic procrastination.

CONCLUSION

In conclusion, digital literacy significantly enhances positive self-development among university freshers by equipping them with critical skills to navigate the digital world effectively. It fosters independent learning, critical thinking and responsible online engagement, enabling students to access educational resources, collaborate and build digital competence. It equips freshers with essential digital skills that foster academic success, boost self-efficacy and promote responsible digital identity management.

RECOMMENDATIONS

The study recommends that Nigerian universities should provide their students with workshops, online courses, and tutorials on themes including how to use digital resources efficiently, how to evaluate digital material, and how to safeguard oneself online. All academic fields should include digital literacy in their curricula, rather than just those that focus on computer science or information technology. Students will be more inspired to develop their abilities when they can see how important digital literacy is to their field of study. Students must have access to digital resources if they are to become digitally literate. Universities should give their students access to digital libraries, scholarly databases, and other online resources. Universities should also provide students



with technology, such as laptops, tablets, and Wi-Fi, to ensure they have the necessary equipment to access these services.

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