



## Perception of Students on Integration of Digital Literacy in Teaching and Learning Approaches in Office Technology and Management in Polytechnics within Taraba State

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### ABSTRACT

This research was presented to determine the Perception of Students on Integration of Digital Literacy in Teaching and Learning Approaches in Office Technology and Management in Polytechnics within Taraba State Nigeria. The study adopted a survey research design while the population of the study comprised 240 OTM students across two government-owned polytechnic within the State. Simple random sampling techniques was used which covered (40 students from state polytechnic Suntai) and (60 students from Federal Polytechnic, Bali) totaling 100 student. A structured questionnaire was used as instrument for data collection. The instrument was validated by three experts (2 from Bali and 1 from Suntai). Copies of the instrument were administered to the respondent physically by the researcher. The data gathered were analyzed using percentage. Findings revealed among others that students acquire digital literacy through the utilization of office software and tools, professional communication skills etc. The finding is in-line with the finding of (Norazlina & Suredran, 2020) which found that digital literacy is the ability to use technology to communicate effectively and professionally, organize information, produce high-quality products, and enhance thinking skills. Find in research question two also revealed that using productivity software such as Microsoft office (word, excel, Google etc., awareness of cyber-security best practices, data protection regulations, and methods for safeguarding sensitive information and proficiency in using email, instant messaging and video conferencing tools and other communication technologies etc. prepares students with the knowledge and skills necessary to excel in OTM as perceived by the OTM students on the Integration of Digital Literacy in teaching and learning approaches in polytechnics within Taraba State. The finding is similar to (Akinyele & Olatunji (2023) which found that office technology and management as an academic discipline that prepares individuals to perform managerial and

administrative roles in the modern office environment through the use of advanced office technologies. Finally, the study recommended among others that management should explore other means of bringing into line current trends of digital revolution and Artificial Intelligence in office management and productivity: educational programs, mainly those focused on office technology management should assimilate more training on digital tools and Artificial Intelligence technologies.

**KEYWORDS:** Perception, Students, Digital Literacy, Teaching and Learning Approaches, OTM

### I. INTRODUCTION

In the digital age, the integration of technology into various areas of life has become critical, and teaching and learning is no exception. Office Technology and Management is a field that focuses on preparing students for the practical application of office-related tasks, which increasingly require digital literacy and technological proficiency. Adewoye & Akanbi (2022) describes Office Technology and Management as the study and application of office procedures, technologies, and management practices to improve the efficiency and effectiveness of office operations. Similarly, Eze & Obiekwe (2021) labels Office Technology and Management as a multidisciplinary field that integrates business administration, information technology, and management principles to enhance office productivity and communication. In a similar manner, Akinyele & Olatunji (2023) views office technology and management as an academic discipline that prepares individuals to perform managerial and administrative roles in the modern office environment through the use of advanced office technology. So also, Ojukwu and Nwosu (2020) terms Office Technology and Management as the systematic application of information and communication technologies (ICT) to the



management of office functions, with the goal of optimizing office performance and ensuring smooth organizational operations.. Likewise, Omole&Adeniran (2022) tags Office Technology and Management as the combination of technological tools and administrative expertise to support and manage office activities efficiently. They emphasize the need for proficiency in both technology and management skills to excel in modern office settings. In the same vein, Usman & Ahmed (2023) outlines Office Technology and Management as a professional field that focuses on the efficient use of office technologies, such as computers, software applications, and communication tools, to manage administrative tasks and enhance organizational efficiency. Therefore, Office Technology and management have no specific concept by generally, it combines administrative, managerial, and technical skills necessary for the efficient operation of an office, leveraging various technologies to enhance productivity, communication, and overall office functionality. In addition, it is relevant in the background of today's digital workplace, where the integration of technology is paramount for effective office management. For these reasons, Office Technology and Management is a practical discipline that emphasizes on the training and application of Digital Literacy in the management of office backgrounds.

The ability to effectively use digital literacy technologies in managerial and organizational tasks is important for students pursuing careers in office management, business administration, and related fields. Atipat&Kamonchanoc (2024) describes digital literacy as the ability to use technology effectively and critically, including the use of software, digital tools, and understanding the digital contextual. In a similar mood, Timothy (2022) tags digital literacy as the capability to efficiently and critically navigate, evaluate, and create information using a range of digital technologies. In another concept, Open University (2021) outlines digital literacy as an overarching term for referring to digital skills' or 'digital capabilities. In similar tone, Baron (2019) pronounces digital literacy as a set of skills necessary for an individual to access, navigate, understand, and contribute to the modern digital information. Norazlina&Suredran (2020) outlines the types of Digital Literacy as Simple Digital Literacy, Information Literacy, Communication Literacy, Media Literacy and Practical Literacy. According to Nicholas (2010) presence of digital media in daily life both as a strategy for teaching-learning and a resource for gaining access to

information proves that teachers and students need to develop skills to use information and communication technologies. Gyorgy (2016) supported that computer-based training and supervisory systems improve the learning process.

Norazlina&Suredran (2020) designates technology proficiency as the ability to use technology to communicate effectively and professionally, organize information, produce high-quality products, and enhance thinking skills. Kamonchanock (2024) states that technology proficiency involves not only the technical skills to operate devices and software but also the pedagogical knowledge to integrate technology into teaching practices to enhance learning outcomes. However, technology proficiency is narrowly related with backgrounds such as the Technological Instructive Content Information (TICI) model, which stresses the connection of the three important mechanisms: Content Information (understanding of the subject matter by the teacher), Educational Information (understanding of how to teach with the devices) and Technical Information (understanding of the tools and technologies available for teaching by the instructor). These elements form a comprehensive view of an instructor's competence in using technology in learning backgrounds. This proficiency is important in contemporary teaching, where digital tools are increasingly integrated into the classroom to support collaborative learning, interactive lessons, and personalized instruction. The increasing position of technology proficiency is principally pertinent in today's area, where instructive systems are familiarizing to the use of digital tools, remote learning environments, and online resources. The growth of such skills is measured as an important factor in refining teaching effectiveness and student engagement.

According to Enokeran&Osazee (2017) Teaching and learning approach emphasizes group interaction, and the sharing of knowledge and ideas to enhance understanding. Garrison & Vaughan (2008) describes teaching and learning approaches as an integrated learning approach that maximizes the benefits of both in-person and digital resources. Bergmann & Sams (2012) proposes flipped classroom model, where outdated lectures are substituted with pre-recorded videos or materials for students to involve with external class. McGill University (2019) implemented four standards as principles to be measured when modernizing classroom spaces to support student teaching and learning. Thus; supportive campus



environment, active and collaborative learning, student faculty interaction and enrichment education experience.

Understanding how students perceives integration of digital literacy in teaching and learning as an approaches in to training Office Technology and Management programme is vital for making data-obsessed results in curriculum expansion and instructional strategies. Students' perceptions on integration of digital literacy can shed light on the strong point and weaknesses of current approaches, highlight areas in need of improvement, and contribute to enhancing the overall quality of teaching in polytechnics within Taraba State. While there may be some research on teaching and learning practices in Office Technology and Management programmes. There is an unresolved gap in the literature concerning students' perceptions, specifically in the background of polytechnics. This research aims to bridge this gap by investigating students' perspectives on the digital literacy teaching and learning approaches employed in Office Technology and Management programmes within polytechnics. By understanding how students perceive their educational experiences, this study seeks to provide actionable understandings for educators, administrators, and stakeholders to enhance the quality and relevancies of Office Technology and Management integration of digital literacy in teaching in polytechnics.

Therefore, this study addresses the need to examine perceptions of students digital literacy teaching and learning approaches in Office Technology and Management programmes within polytechnics in Taraba State. By exploring students' viewpoints, it aims to contribute to the ongoing efforts to improve the effectiveness and relevance of Office Technology and Management integration of digital literacy in teaching and, ultimately, enhance students' readiness for successful careers in administrative and managerial roles.

### **STATEMENT OF THE PROBLEM**

The fast technological advancements in the Polytechnics within Taraba State necessitate a corresponding development in integrating digital literacy into teaching and learning programmes designed to prepare students for office and administrative roles. In the background of Office Technology and Management, the question arises: are students applying the necessary digital literacy and technology proficiency through the current teaching and learning approaches employed in the Polytechnics within Taraba State, there is a growing concern that old-style approaches teaching and

learning may not sufficiently equip Office Technology and Management students with the skills and competencies they need to excel in an increasingly digital and technologically advanced world. The changing nature of office tasks, such as the widespread use of cloud computing, artificial intelligence, and automation, requires students to be not only familiar with basic office tools but also proficient in advanced technological systems. This raises the question of whether the current teaching approaches are adequate in preparing students for the growing needs of the industry. Furthermore, the perception of students regarding the effectiveness of these teaching methods in fostering digital literacy is critical to understanding the success of Office Technology and Management programme. Are students satisfied with the curriculum and the technological tools used in their training? Do they feel confident in their ability to use technology effectively in a real-world office setting?

Therefore, this study seeks to address these concerns by examining two main issues: firstly, whether students are applying the necessary digital literacy and technology proficiency in Office Technology and Management, and secondly, whether students feel prepared with the knowledge and skills applied to excel in the competitive and technology-driven world of Office Technology and Management. It is against this background that the researcher will assess Perception of Students on Integration of Digital Literacy in Teaching and Learning Approaches in Office Technology and Management in Polytechnics within Taraba State.

### **PURPOSE OF THE STUDY**

The purpose of the study is to examine the Perception of students on Integration of Digital Literacy in Teaching and Learning Approaches in Office Technology and Management in Polytechnics within Taraba State.

The following are specific objectives aimed at achieving:

- i. To examine whether students are familiar with digital literacy and technology proficiency in Office Technology and Management in Polytechnics within Taraba State
- ii. To determine whether students are prepared for the knowledge and skills applied to excel in Office Technology and Management in Polytechnics within Taraba State



**RESEARCH QUESTIONS**

- i. How does students familiar with digital literacy and technology proficiency in Office Technology and Management in Polytechnics within Taraba State
- ii. How does students prepares for the knowledge and skills applied to excel in Office Technology and Management in Office Technology in Polytechnics within Taraba State

**II. RESEARCH METHODOLOGY**

The research adopted the survey research design. The population of the study comprised 240 OTM students in the Polytechnics within Taraba State. A simple random sampling techniques was used to sample 100 respondents (60 respondents from Federal Polytechnic, Bali and 40 from State Polytechnic, Suntai) out of the total population, with

the help of research consultant. The instrument used was a close-ended questionnaires of strongly agree, agree, disagree and strongly disagree. The eight item questionnaire was developed to guide the investigation. The study’s instrument was developed on four point rating scale questionnaire: strongly agreed (SA) 4 point, agreed (A) 3 point, disagree (D) 2 point and strongly disagreed (SD) 1 point. The surveyed questionnaire was distributed to 100 respondents and 97 were duly returned and used for data analysis. Percentage are used in a tabular format to answer the research questions. The remarks was based on the level of percentage that strongly agreed and agreed are considered to be positive perception while disagreed and strongly disagreed are considered to be negative perception.

**III. Results**

**Research Question one:** How does students acquires digital literacy and technology proficiency in Office Technology and Management in Polytechnics within Taraba State.

**Table 1:** Valid percentage on the students’ acquired of digital literacy and technology proficiency in Office Technology and Management in Polytechnics within Taraba State. N= 97

S/N	Item statement	Freq.	%	Valid %	Cum. %	Decision
1	Digital literacy enables students to utilize office software and tools effectively	61	62.9	62.9	62.9	Strongly agreed
		33	34.0	34.0	96.9	Agreed
		11	1.0	1.0	97.9	Not agreed
		27	2.1	2.1	100	Strongly not agreed
2	Digital literacy equips students with the skills to communicate professionally using these digital tools	48	49.5	49.5	49.5	Strongly agreed
		45	46.4	46.4	95.9	Agreed
		3	3.1	3.1	99.9	Not agreed
		1	1.1	1.1	100.0	Strongly not agreed
3	Digital literacy is crucial for organizing, storing and retrieving information efficiently	40	41.2	41.2	41.2	Strongly agreed
		43	44.3	44.3	85.6	Agreed
		14	14.4	14.4	100.0	Not agreed
4	Digital literacy empowers students to troubleshoot technical issues independently, minimizing disruptions to workflow and problem-solving in real-time	36	37.1	37.1	37.1	Strongly agreed
		50	51.5	51.5	88.7	Agreed
		5	5.2	5.2	93.8	Not agreed
		6	6.2	6.2	100.0	Strongly not agreed
		Average	28.2	26.6	26.6	83.3

From the analysis in the table 1 above revealed that out of 97 respondents, 61 (62.9%) and 33 (34.0%) strongly agreed and agreed respectively

that digital literacy enables students to utilize office software and tools effectively, while 2 (2.1%) and 1 (1.0%) of the respondents strongly disagreed and



disagreed respectively that digital literacy enables students to utilize office software and tools effectively as way of obtaining digital literacy and technological proficiency in OTM. 48 (49.5%) and 45 (46.4%) strongly agreed and agreed respectively that digital literacy equips students with the skills to communicate professionally using digital tools, while 1 (1.0%) and 3 (3.1%) of the respondents strongly disagreed and disagreed respectively that digital literacy equips students with the skills to communicate professionally using digital tools as way of obtaining digital literacy and technological proficiency in OTM, 40 (41.2%) and 43 (44.3%) strongly agreed and agreed respectively that digital literacy is crucial for organizing, storing and retrieving information efficiently, while 14 (14.4%) of the respondents disagreed that digital literacy is crucial for organizing, storing and retrieving information efficiently as way of obtaining digital

literacy and technological proficiency in OTM. And 36 (37.1%) and 50 (51.5%) strongly agreed and agreed respectively that, Digital literacy empowers students to troubleshoot technical issues independently, minimizing disruptions to workflow and problem-solving in real-time, while 6 (6.2%) and 5 (5.2%) of the respondents strongly disagreed and disagreed respectively that Digital literacy empowers students to troubleshoot technical issues independently, minimizing disruptions to workflow and problem-solving in real-time as way of obtaining digital literacy and technological proficiency in OTM.

**Research Question two:** How does Students prepare with the knowledge and skills necessary to excel in OTM in Polytechnics within Taraba State?

**Table 2:** Valid percent on students' preparedness with the knowledge and skills necessary to excel in OTM in Polytechnics within Taraba State?

S/N	Item statement	Freq.	%	Valid %	Cum.%	Decision
1	Using productivity software such as Microsoft office (word, excel, power point, outlook), goggle etc.	80	82.5	82.5	82.5	Strongly agreed
		15	15.5	15.5	97.9	agreed
		1	1.0	1.0	99.0	Not agreed
		1	1.0	1.0	100.0	Strongly not agreed
2	Awareness of cyber security best practices, data protection regulations, and methods for safeguarding sensitive information is essential to protect organizational assets.	37	38.1	38.1	38.1	Strongly agreed
		52	53.6	53.6	91.8	Agreed
		6	6.2	6.2	97.9	Not agreed
		2	2.1	2.1	100.0	Strongly not agreed
3	Ability to identify issues, analyses root causes, and develop effective solutions.	44	45.4	45.4	45.4	Strongly agreed
		45	66.4	66.4	91.8	agreed
		4	4.1	4.1	95.9	Not agreed
		4	4.1	4.1	100.0	Strongly not agreed
4	Proficiency in using email, instant messaging platforms, video conferencing tools, and other communication technologies is crucial, especially in remote or distributed work working environment.	53	54.6	54.6	54.6	Strongly agreed
		38	39.2	39.2	93.8	agreed
		5	5.2	5.2	99.0	Not agreed
		1	1.0	1.0	100.0	Strongly not agreed



AVERAGE	24.25	26.25	26.25	86.73	Strongly agreed
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Source: field survey, 2024

From the analysis in table 2 above shows that out of 97 respondents, 80 (82.5%) and 15 (15.5%) strongly agreed and agreed respectively that using productivity software such as Microsoft office (word, excel, power point, outlook), goggle etc., while 1 (1.0%) and 1 (1.0%) of the respondents strongly disagreed and disagreed respectively that using productivity software such as Microsoft office (word, excel, power point, outlook), goggle etc. will prepare a student with the knowledge and skills necessary to excel in OTM. 37 (38.1%) and 52 (53.6%) strongly agreed and agreed respectively that Awareness of cyber security best practices, data protection regulations, and methods for safeguarding sensitive information is essential to protect organizational assets, while 2 (2.1%) and 6 (6.2%) of the respondents strongly disagreed and disagreed respectively that Awareness of cyber security best practices, data protection regulations, and methods for safeguarding sensitive information is essential to protect organizational assets will prepare a student with the knowledge and skills necessary to excel in OTM. 44 (45.4%) and 45 (46.4%) strongly agreed and agreed respectively that Ability to identify issues, analyses root causes, and develop effective solution, while 4 (4.1%) and 4 (4.1%) of the respondents strongly disagreed and disagreed respectively that Ability to identify issues, analyses root causes, and develop effective solution will prepare a student with the knowledge and skills necessary to excel in OTM. 53 (54.6%) and 38 (39.2%) strongly agreed and agreed respectively that Proficiency in using email, instant messaging platforms, video conferencing tools, and other communication technologies is crucial, especially in remote or distributed working environments, while 1 (1.0%) and 5 (5.2%) of the respondents strongly disagreed and disagreed respectively that Proficiency in using email, instant messaging platforms, video conferencing tools, and other communication technologies is crucial, especially in remote or distributed working environments will prepare a student with the knowledge and skills necessary to excel in OTM.

#### IV. DISCUSSION OF FINDINGS

The purpose of this study is to find out the Perception of Students on Integration of Digital Literacy in Teaching and Learning Approaches in Office Technology and Management. The finding of the study in Research question one revealed that

digital literacy are acquired through the effective utilization of office software and tools, effective professional communication skills; efficient organizing, storing and retrieving of information; and finally, empowered troubleshooting of technical issues independently; minimizing disruptions to workflow and problem-solving in real-time. This finding confirms the result of the finding of Norazlina&Suredran (2020) which found that digital literacy is the ability to use technology to communicate effectively and professionally, organize information, produce high-quality products, and enhance thinking skills.

Findings in research question two revealed that using productivity software such as Microsoft office (word, excel,google etc. prepares students with the knowledge and skills necessary to excel in Office Technology and Management, awareness of cyber-security best practices, data protection regulations, and methods for safeguarding sensitive information and proficiency in using email, instant messaging and video conferencing tools and othe communication technologies etc. prepares students with the knowledge and skills necessary to excel in Office Technology and Management as perceived by the Office Technology and Management students in teaching and learning approaches in polytechnics within Taraba State. This finding is in line with the finding of (Akinyele&Olatunji (2023) which found that office technology and management as an academic discipline that prepares individuals to perform managerial and administrative roles in the modern office environment through the use of advanced office technologies. Finally, the study recommended among others that management should explore other means of bringing into line current trends of digital revolution and Artificial Intelligence in office management and productivity: educational programs, mainly those focused on office technology management should assimilate more training on digital tools and Artificial Intelligence technologies.

#### V. CONCLUSION

The finding concluded that using digital literacy tools in teaching and learning approach enables students to utilize office software and tools and prepare students with the knowledge and skills necessary to excel in OTM effectively, so as to enhance its relevance in the face Office Technological challenges.



## VI. RECOMMENDATIONS

Based on the findings, here are some recommendations that could help:

1. Stakeholder should bring into line better with the current trends of digital revolution and AI in office management and productivity such as teaching and learning programmes, mostly those dedicated on office technology management should assimilate more training on digital tools and AI technologies.

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