EFFICACY OF INSTRUCTIONAL METHODS IN MASTERING OFFICE PRODUCTIVITY SOFTWARE: IMPLICATIONS FOR TEACHING ENHANCEMENT

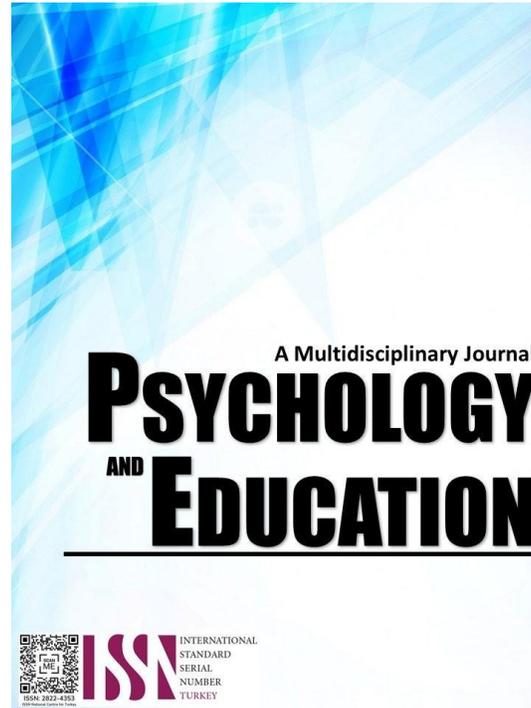# Efficacy of Instructional Methods in Mastering Office Productivity Software: Implications for Teaching Enhancement

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Abstract

In today's technology-driven workplace, proficiency in office productivity software is a crucial competency for aspiring office administrators. This study examined the efficacy of instructional methods in enhancing the mastery of office productivity software among third-year Bachelor of Science in Office Administration students at Trinidad Municipal College, Trinidad, Bohol. Specifically, it aimed to identify the difficulties students encounter in learning productivity tools, assess their mastery, evaluate the perceived effectiveness of instructors' teaching methods, and determine the relationship between instructional efficacy and student proficiency. Using a descriptive-correlational research design, the study involved 226 randomly selected respondents from a pool of 500 enrollees. Data were collected using a validated, self-constructed questionnaire and analyzed using frequency counts, weighted means, and the Pearson Product-Moment Correlation Coefficient. Results revealed that students primarily used Microsoft Word, Gmail, Google Drive, and WPS Office, while advanced tools such as Adobe Acrobat and Microsoft Access were used less frequently. Respondents demonstrated an overall "intermediate" level of mastery (composite mean = 1.84), with higher proficiency in presentation creation but lower competence in composing professional emails, applying formulas, and engaging in collaborative tasks. Instructors' teaching approaches were rated "effective" (composite mean = 3.21), particularly in assessment through projects and presentations, though relatively weaker in integrating online tools and demonstrating advanced software proficiency. Correlation analysis established a weak but statistically significant positive relationship (r = 0.229, p = 0.001) between instructional efficacy and students' software mastery. This indicates that while effective teaching methods contribute to improved proficiency, other factors such as resource availability, prior digital literacy, and student motivation also influence outcomes. The study concludes that instructional practices play a vital role in shaping students' digital skills, yet teaching strategies must be strengthened through differentiated instruction, experiential learning, and real-world applications. Recommendations include enhancing faculty competence via continuous training, targeting underserved skill areas, integrating industry-relevant practices, and upgrading institutional infrastructure. These findings underscore the importance of aligning instructional methods with workplace demands to better prepare office administration graduates for the challenges of the digital economy.

Keywords: *teaching enhancement, office productivity software, instructional method, digital literacy, student proficiency*

Introduction

In today's digital-driven work environment, proficiency in office productivity software is an essential skill for aspiring office administrators. Applications such as word processors, spreadsheets, and presentation software are tools used for business and administrative tasks, streamlining workflows and enhancing productivity. Understanding these software tools is essential for meeting work and business demands and for enhancing job preparation as office management students prepare for their future careers. Nevertheless, many students struggle to understand and use these technologies effectively, which could impair their overall academic achievement and readiness for real-world tasks.

The rapid evolution of technology has transformed the way we learn, work, and interact. This shift has created a growing demand for individuals skilled in leveraging office productivity software to improve efficiency. However, teaching these skills poses challenges, as educators must balance pedagogical expertise with technological savvy. To equip students with the skills necessary to excel in today's tech-driven workforce, effective instructional strategies are crucial. Students who received instruction through a combination of traditional and technology-based methods demonstrated better learning outcomes compared to those who received instruction through traditional methods alone (Kumar, 2022).

Several factors contribute to the challenges Bachelor of Office Administration students face in mastering office productivity software. These include varying levels of digital literacy, limited access to technological resources, inadequate hands-on training, and difficulties in understanding complex software functions. Additionally, differences in learning styles and the efficacy of faculty instruction further complicate students' ability to acquire and retain mastery. Without adequate support and appropriate teaching strategies, these difficulties may persist, affecting students' confidence and preparedness for future administrative roles.

Instructor efficacy plays a critical role in addressing these challenges. Teachers who are skilled in adapting teaching methods to meet students' diverse learning needs, using a student-centered approach, and incorporating effective pedagogical techniques can

significantly improve students' mastery of office productivity software. However, the level of teaching efficacy, including knowledge of the software, instructional strategies, and the ability to engage students, may vary among instructors.

Recent studies have investigated the efficacy of various teaching strategies in office productivity software education, offering insights into how to enhance student learning outcomes. For instance, Patel (2020) and Kumar (2022) found that blended learning strategies, which integrate traditional face-to-face instruction with online learning activities, can significantly improve student performance. Blended learning allows students to benefit from both structured classroom guidance and the flexibility of online resources, promoting engagement and self-directed learning. While these studies demonstrate the potential of blended learning, they primarily focus on general outcomes without examining how instructional strategies address specific challenges in mastering complex or collaborative office productivity tasks. This highlights a gap in the literature regarding the relationships among teaching methods, students' mastery of higher-order software skills, and factors such as digital literacy levels and learner characteristics. Addressing this gap, the present study investigates how the efficacy of instructors' teaching methods impacts BSOA students' proficiency in office productivity software, with attention to practical application and differentiated instruction strategies.

Given these concerns, it is essential to assess the specific difficulties office administration students encounter in mastering office productivity software and to explore the role of instructors' teaching efficacy in shaping these outcomes. By identifying key problem areas, educators can enhance instructional methods, develop more effective training programs, and integrate innovative teaching strategies tailored to students' needs. This study aims to provide valuable insights into the learning challenges faced by BSOA students and to propose strategies to improve teaching methodologies that better equip them with the necessary software skills for future administrative roles.

Research Questions

This study aimed to examine how the efficacy of the teaching methods instructors employ influences students' proficiency with these software tools. It also sought to identify the common Office Productivity Software used by BSOA students at Trinidad Municipal College. Specifically, it aimed to answer the following questions:

1. What is the profile of the respondents in terms of:
    1.1. age; and
    1.2. sex?
2. What Office Productivity software is commonly used by the respondents?
3. What is the level of mastery among BSOA students on Office Productivity Software?
4. What is the level of efficacy of instructors' teaching methods as perceived by the respondents?
5. Is there a significant relationship between the level of efficacy of the instructors' teaching methods and the level of mastery among BSOA students in Office Productivity software?

Methodology

Research Design

This quantitative study employed a descriptive-correlational design to comprehensively examine the relationship between instructional methods and proficiency in mastering office productivity software. The focus will be on describing the characteristics of various instructional methods and determining the strength and direction of the correlations between these methods and learning outcomes. In this study, the variables were operationalized by measuring the efficacy of instructional methods through a structured survey assessing clarity, strategies, engagement, and instructor support. In contrast, students' proficiency was measured through self-assessed mastery levels for specific office productivity tasks and software features. These quantifiable indicators allow both variables to be systematically compared, analyzed, and correlated.

Respondents

The study was carried out at Trinidad Municipal College, located in Poblacion, Trinidad, Bohol. This specific location was considered for the study because it is near the researchers' location, making it convenient for them to conduct the study. This allows for easy access to the research site and minimizes logistical challenges.

To facilitate a focused and meaningful investigation, the third-year students currently enrolled in the Bachelor of Science in Office Administration program, with a total enrolment of 500, are randomly selected as participants in this research. Third-year students are chosen because they are already immersed in major subjects that require advanced use of office productivity software, making their skills, challenges, and learning experiences highly relevant to the research objectives. At this stage in their program, they have sufficient exposure to both foundational and applied computer tasks, enabling the study to assess instructional methods more accurately.

This random selection ensures that every student within the population has an equal chance of being included in the sample. With this approach, the study captures a wide range of perspectives and experiences on the efficacy of instructional methods for mastering office productivity software. In total, 226 students agreed to participate as respondents in the study.

Instrument

The researchers employed a self-made questionnaire as the primary data-gathering instrument. The initial section focuses on demographic information, including age and gender. The second section is specifically designed to assess students' mastery in using office productivity software. This portion consists of a comprehensive set of statements crafted to capture detailed insights into the types of office productivity software commonly used and the level of mastery among BSOA students.

To ensure the instrument's accuracy and appropriateness, it underwent pilot testing, followed by content analysis conducted by subject-matter experts to establish face and content validity. After the pilot test, the instrument's reliability was assessed using Cronbach's alpha, confirming that the questionnaire items were internally consistent and dependable for actual data collection. Overall, the questionnaire used in this study serves as a vital tool for acquiring reliable, valid, and meaningful data.

Procedure

The researchers sought permission from the College Administrator of Trinidad Municipal College to conduct a study of the 226 randomly selected BSOA third-year students. After obtaining permission, the researchers personally met the respondents at the TMC campus. The process began with an informed consent procedure, during which respondents were briefed about the research's purpose to ensure their voluntary involvement. After consenting, respondents were given the research questionnaire to complete.

The data collected from the respondents were meticulously recorded, organized, tabulated, and subsequently subjected to comprehensive statistical analysis.

Data Analysis

This study is quantitative in nature, as the variables were computed from respondents' answers to the test questionnaire administered by the researchers. To determine the profile of the respondents, such as age and sex, frequency counts and simple percentage formulas were employed, and the results were interpreted using the mean. In identifying the Office Productivity Software commonly used by the respondents, the weighted mean formula was applied. The same statistical treatment, the weighted mean formula, was also utilized to assess the level of mastery among third-year BSOA students and the efficacy of instructors' teaching methods. Meanwhile, to determine whether there is a significant relationship between the level of mastery of Office Productivity Software among BSOA students and the efficacy of instructors' teaching methods, the data were subjected to the Pearson Product-Moment Correlation Coefficient. This statistical tool was used to determine the strength and direction of the relationship between the two variables, taking into account each variable's scores, their deviations from the mean, and the number of respondents included in the computation.

In applying the correlation analysis, the study acknowledges the underlying assumptions of Pearson's r, such as linearity, normality of the data distribution, and the use of interval- or ratio-level variables. Any deviation from these assumptions may influence the accuracy of the results. Additionally, because the data relied on self-reported responses, the findings may be affected by factors such as personal bias, misunderstanding of the questions, or over- or underestimation of actual skills. Despite these limitations, the use of frequency counts, weighted mean, and Pearson correlation remains appropriate and aligned with the study's descriptive–correlational research design.

Ethical Considerations

Given the importance of ethics in conducting research and the challenges associated with collecting data, universities and colleges take significant measures to protect the dignity, rights, and safety of research participants (Silverman, 2009). To comply with ethical standards, all participants were provided with written and verbal information about the study and asked to provide written informed consent to participate. This ensured that participation was entirely voluntary, with no pressure or coercion, and that participants were fully aware of the research purpose, procedures, and their right to withdraw at any time.

In handling the data, the researchers maintained confidentiality and secure data management, ensuring that participants' identities and responses were protected. No data falsification or manipulation was performed, and objectivity was maintained in the discussion and analysis of the findings. Moreover, all sources of information, affiliations, and potential conflicts of interest were transparently disclosed. The study was conducted and reported honestly, transparently, and in accordance with established ethical research standards.

Results and Discussion

This section presents a thorough study and interpretation of the data gathered to evaluate how effectively teaching strategies contributed to students pursuing a Bachelor of Science in Office Administration becoming proficient with office productivity software.

Table 1. *Profile of the Respondents*

Respondents' Profile	Frequency	Percentage	Rank
Age			
17 – 19 years old	0	0%	3
20 – 22 years old	197	87.2 %	1
23 – 25 years old	29	12.8 %	2

Total	226	100%	
Sex			
Male	32	14.2%	2
Female	194	85.8%	1
Total	226	100%	

Profile of the Respondents

The respondents' age-associated demographic profile is demonstrated in Table 1. The 20-22-year-old age group had the highest proportion (87.2%), while the 23-25-year-old age group had the lowest (12.8%), according to the data. It indicates that the vast majority of those surveyed were mature adults.

The study's demographic distribution, with 85.8% female and 14.12% male participants, is noteworthy. According to the extant literature, research often emphasizes the importance of representative samples (Kumar, 2022). The predominance of female participants may reflect trends in specific disciplines or professional programs (Smith, 2020), such as those attracting more women into office administration courses.

The predominantly female perspective may have influenced the study's findings, particularly if gender differences exist in experiences, attitudes, or proficiency with office productivity software (Hernandez & Ramos, 2020; Wang, 2020). For instance, Smith (2021) observed that female participants tend to interact differently with specific technologies, which may shape their learning processes and software mastery. As such, the demographic distribution not only underscores the importance of female viewpoints but also highlights potential limitations in generalizing the findings to male students or more balanced populations.

Future research could explore potential gender differences in mastery levels, learning experiences, and responses to instructional methods, providing a more nuanced understanding of how demographic factors influence student outcomes. Therefore, the study's conclusions should be interpreted in the context of the participant composition, recognizing both the value of female perspectives and the need for caution regarding broader generalizations.

Table 2. *Commonly Used Office Productivity Software*

Office Productivity Software	Frequency	Percentage	Rank
Microsoft Word	158	69.9%	1
Google Docs	102	45.1%	5
WPS Office Writer	129	57.1%	3
Microsoft Excel	52	23%	9
Google Sheets	23	10.2%	11
WPS Office Spreadsheets	63	27.9%	8
Microsoft PowerPoint	48	21.2%	10
Google Slides	16	7.1%	15
WPS Office Presentation	72	31.9%	6
Microsoft Outlook	10	4.4%	18
Gmail	147	65%	2
Microsoft OneNote	8	3.5%	19
Apple Notes	13	5.8%	16
Microsoft Teams	8	3.5%	19
Adobe Photoshop	12	5.3%	17
Microsoft Access	21	9.3%	13
Google Cloud Firestore	7	3.1%	20
Adobe Acrobat	6	2.7%	21
Canva	71	31.4%	7
Google Drive	104	46%	4
Microsoft OneDrive	17	7.5%	14
iCloud Drive	10	4.4%	18
Zoom	22	9.7%	12
Total	226	100 %	

Commonly used Office Productivity Software

The top 10 office productivity tools used by students are outlined in Table 2. These tools include Google Docs, Microsoft Word, Microsoft Excel, WPS Office Spreadsheet, Microsoft PowerPoint, WPS Office Presentation, Gmail, Canva, and Google Drive.

These findings accord with previous studies, highlighting the dominance of Microsoft Office and Google's productivity suite in contemporary companies (Kumar, 2022; Smith, 2021). The widespread use of word processing, spreadsheet, and presentation software emphasizes the importance of document creation and management in the workplace (Hernandez, 2020). The integration of Gmail and Google Drive indicates the increasing reliance on cloud-based communication and storage services (Smith, 2021). Canva's existence implies a growing demand for user-friendly graphic creation tools (Wang, 2021).

These findings have implications for office productivity, collaboration, and technology adoption, which urge further research. Additional research might examine the effects of these technologies on student efficiency and engagement, as well as potential obstacles to technology adoption across different corporate cultures. For schools hoping to maximize students' abilities and improve overall performance, understanding these dynamics will be essential.

Table 3. *Mastery In Office Productivity Software*

Statements	Weighted Mean	Descriptive Interpretation	Rank
1. Creating, formatting, and saving documents.	2.06	Intermediate	3
2. Using styles, headers, and footers.	1.98	Intermediate	4
3. Creating tables, charts, and inserting images.	2.09	Intermediate	2
4. Using mail merge for letters and labels.	1.82	Intermediate	9
5. Applying advanced formatting (e.g., columns, section breaks, table of contents).	1.83	Intermediate	8
6. Creating basic formulas (e.g., SUM, AVERAGE, IF).	1.65	Intermediate	15
7. Using charts and graphs for data visualization.	1.75	Intermediate	10
8. Creating slides with text, images, and videos.	2.28	Intermediate	1
9. Applying design themes and animations.	1.97	Intermediate	5
10. Creating professional and interactive presentations.	1.73	Intermediate	12
11. Collaborating on presentations in real-time.	1.65	Intermediate	15
12. Generating reports and summaries.	1.95	Intermediate	7
13. Designing forms for data entry.	1.65	Intermediate	15
14. Composing and formatting professional emails.	1.60	Intermediate	18
15. Managing contacts, calendars, and scheduling meetings.	1.97	Intermediate	5
16. Using email filters, labels, and folders for organization.	1.74	Intermediate	11
17. Collaborating through shared documents and cloud storage.	1.71	Intermediate	14
18. Utilizing video conferencing tools effectively.	1.72	Intermediate	13
Composite Mean	1.84	Intermediate	

Legend: 1.0 - 1.49 - Beginner; 1.50 - 2.49 - Intermediate; 2.50 - 3.49 - Advanced; 3.50 - 4.00 - Expert

Mastery in Office Productivity Software

The respondents' self-reported proficiency with office productivity software is displayed in Table 3. Although students have a functional understanding of office software, their mastery is constrained, especially in areas that require high-level features or problem-solving skills, as indicated by the composite mean of 1.84, which falls into the "Intermediate" category. "Creating slides using text, images, and videos" (2.28), which demonstrated greater proficiency with presentation software, was an innate capacity with the highest rating. This aligns with Hernandez et al. (2020), who acknowledged that visually oriented platforms such as PowerPoint are frequently used for group reporting and coursework, students seem more at ease utilizing them.

Conversely, "Writing and formatting professional email" (1.60), "Creating simple formulas," "Working on presentations in real time," and "Creating forms for data entry" (all 1.65) are the skills with the lowest ratings. These findings support those of Kang and Wang (2020), who asserted that although students may appear to be digital natives, they often lack deeper software literacy, particularly in tasks that require logical reasoning, integration, and teamwork. Their study emphasized that instructional strategies should include guided practice and real-world application in addition to demonstration.

Furthermore, Smith (2018) identified the need to use differentiated teaching strategies when teaching productivity tools, as passive learning approaches often fail to accommodate students' varying levels of digital fluency. This is consistent with the current study's findings, which show varying degrees of mastery across tasks, suggesting that a single teaching strategy might not be sufficient.

From a theoretical perspective, these results can be related to Bloom's Taxonomy, where students appear to demonstrate proficiency at the lower cognitive levels (remembering and understanding) but show limitations in higher-order skills (applying, analyzing, and creating) when dealing with more complex functions. Additionally, Kolb's Experiential Learning Theory supports the notion that hands-on, real-world, and reflective learning experiences are critical for improving mastery in practical software tasks. The variations in student proficiency suggest that instructional methods that incorporate active experimentation and concrete experiences can enhance higher-level skills and problem-solving capacity.

In summary, the results support previous research showing that systematic and targeted instruction is necessary for excellent software proficiency.

Table 4. *Efficacy Of Instructors' Teaching Methods*

Statements	Weighted Mean	Descriptive Interpretation	Rank
1. The instructor provides opportunities for hands-on practice using office productivity software.	3.12	Effective	7
2. Online tools or software used in class enhance learning.	3.06	Effective	8
3. Practical exercise are relevant to real-world office tasks.	3.12	Effective	7
4. The instructor ensures that students can independently apply what they	3.34	Effective	2

	have learned.		
5.	The instructor effectively integrates multimedia, tutorials, and other resources in teaching.	3.15	Effective	6
6.	The instructor uses effective teaching techniques.	3.32	Effective	3
7.	The instructor uses a variety of teaching methods that cater to different learning techniques.	3.24	Effective	5
8.	The instructor is proficient in office productivity software being taught.	3.05	Effective	9
9.	The instructor provides regular feedback to students on their progress and areas for improvement.	3.30	Effective	4
10.	The instructor evaluates overall learning through projects, presentations, or exams.	3.37	Effective	1
	Composite Mean	3.21	Effective	

Legend: 1.0–1.49 = Ineffective; 1.50–2.49 = Less Effective; 2.50–3.49 = Effective; 3.50–4.00 = Highly Effective

Efficacy of Instructors' Teaching Methods

With a composite mean of 3.21, indicating an "Effective" rating, Table 4 outlines how the study evaluated the efficacy of instructional methods for teaching office productivity software. The assertion that obtained the highest ranking was "The instructor evaluates overall learning through projects, presentations, or exams" (3.37). However, the statement that received the lowest ratings, "The instructor is proficient in office productivity software being taught" (3.05), identified areas that require further improvement. Smith (2021) highlights the importance of aligning assessment methods with learning objectives to enhance student engagement and comprehension. By addressing areas for improvement, such as instructors' proficiency with productivity software, educational institutions can foster a more effective learning environment.

In line with studies indicating the importance of continuous teacher training, the relatively lower ratings for instructor proficiency in online tool integration (3.06) and office productivity software (3.05) indicate areas in need of professional growth (Kumar, 2022).

This implies that using these strategies by teachers enhances students' learning outcomes. Plenty of room for improvement is demonstrated by the comparatively lower ratings for instructor expertise in online tool integration (3.06) and office productivity software (3.05). Kumar (2022) emphasizes the value of continual teacher preparation to remain abreast of changing approaches and technologies. Investing in opportunities for professional development might enhance teachers' abilities and, consequently, students' educational experiences.

Overall, the findings imply that teachers are successful in conveying proficiency in office productivity software, with areas for improvement in software competency and online tool integration, as well as strengths in assessment and application. Instructors may elevate their instructional strategies and strategically prepare students for success by utilizing office productivity software to address these areas. By fostering a more comprehensive understanding of software competency and enhancing online tool integration, educators can create a more engaging learning environment. This proactive approach will benefit students' technical skills and prepare them for real-world applications in various professional settings.

Table 5. *Relationship between the level of mastery among BSOA students on Office Productivity Software and the level of efficacy of instructors' teaching methods*

Source of Relationship	n	Comp r	Comp p value	Tab p value	Interpretation	Decision
Level of efficacy of instructors' teaching methods vs Level of mastery among BSOA students on Office Productivity Software	226	0.229	0.001	<0.05	Weak Positive Correlation	Significant Reject Ho

**. Correlation is significant at the 0.05 level (2-tailed).

Table 5 highlights the statistical relationship between the level of mastery in Office Productivity Software among BSOA students and the efficacy of instructors' teaching methods. Based on a sample of 226 respondents, the computed Pearson correlation coefficient (r) is 0.229, with a p-value of 0.001, indicating a weak but statistically significant positive correlation at the 0.05 significance level. The null hypothesis is therefore rejected.

The weak correlation suggests that enhanced student mastery of office productivity tools is associated with more effective teaching methods. This aligns with the findings of Wang (2021) and Singh (2022), which highlighted the importance of practical instruction in boosting students' digital competency. Both results lend credence to the notion that, particularly in technology-based learning contexts, instructional quality can have a significant impact on student outcomes.

Hernandez and Ramos (2020) further emphasize that student-centered and interactive teaching approaches may foster deeper learning and enhanced retention of ICT skills, thereby solidifying the relationship between learner proficiency and instructor approach. This validates the finding in Table 6 that quantifiable increases in student mastery may result from minimal advancements in instructional strategies.

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Similarly, Johnson (2020) and Smith (2021) concluded that integrating adaptive teaching tactics and formative assessments improves students' engagement and technology skills, which supports the current study's findings. The results they obtained show that teaching strategies that are attentive to students' learning demands are particularly effective in applied software instruction.

Finally, Patel et al. (2020) and Kumar (2022) emphasize the vital role of continuing teacher development and instructional innovation in providing students with critical workplace skills. They contend that modest improvements in teaching efficacy might positively influence learning outcomes over time, consistent with the barely significant association found in this study.

In conclusion, while the correlation between teaching efficacy and software mastery is not substantial, it is statistically significant and supported by prior research, underscoring the importance of practical instruction in developing student competencies in office productivity tools.

Conclusions

The study concludes that while BSOA students demonstrate functional use of general office productivity software, their proficiency remains limited in complex, collaborative, and problem-solving tasks, particularly in creating formulas, working with forms, and conducting real-time collaborative presentations. This directly addresses the research question about mastery, highlighting that students are more comfortable with visually oriented, frequently used tools like PowerPoint but struggle with advanced features that require logical thinking and integration. Instructional practices have been effective in supporting basic skills, including assessments and guided exercises. However, improvements are needed to incorporate advanced software features, hands-on practice, and scenario-based learning activities to address the question of teaching efficacy. The positive, though weak, correlation between instructional quality and student mastery confirms that well-structured teaching contributes to students' digital competencies, yet also indicates that more targeted and differentiated strategies are necessary to bridge existing gaps.

Based on these findings, it is recommended that instructors participate in specialized training and certification programs focused on office productivity software, implement differentiated and project-based learning activities tailored to students' varying digital literacy levels, integrate real-world applications into the curriculum such as collaborative reports and cloud-based tasks, and provide targeted workshops for underdeveloped skills including professional email writing, data-entry forms, and formula creation. Additionally, continuous faculty development, further research including exploration of gender disparities and learning preferences, and upgrading of technological infrastructure, including access to industry-standard software and high-performance hardware, will help enhance students' mastery and better prepare them for the demands of the modern workplace.

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