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TECHNOLOGY ISSUES OF NON- TEACHING PERSONNEL: A QUALITATIVE STUDY

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ABSTRACT

This study examined the technology issues of non-teaching personnel and employed thematic analysis to explore the lived experiences of Non-Teaching Personnel in educational settings, addressing technology issues. Three essential themes emerged: Efficiency and Productivity Enhancement, Workplace Technological Integration, and Administrative Efficiency and Technology Enhancement. These findings illuminate the multifaceted impact of technology on non-teaching personnel, emphasizing the imperative for enhanced efficiency and seamless integration in both workplace practices and administrative processes. Similarly, an examination of technological challenges faced by administrative staff identified three sub-themes: Technology Productivity and Competency, Managing Technology Privacy Concerns, and Technology Opportunity and Challenges. This comprehensive analysis delves into nuanced aspects, addressing productivity, competency, privacy concerns, and the broader spectrum of opportunities and challenges presented by technology in the educational context. Furthermore, an exploration of Digital Literacy Among Non-Teaching Personnel revealed three themes: Technological Workshop and Training, Technology Leverage and Skill Development, and Positive Impact on Efficiency and Productivity. These findings underscore the significance of targeted workshops and training, skill development through technology leverage, and positive repercussions on efficiency and productivity resulting from enhanced digital literacy. In conclusion, the study advocates for tailored training programs, comprehensive digital literacy initiatives, and robust technology policies. Recommendations include fostering a culture of continuous learning, collaboration between teaching and non-teaching staff, and the integration of digital literacy in the curriculum. The study suggests exploring the long-term impact of digital literacy initiatives and investigating innovative solutions to emerging technological challenges in educational settings.

Keywords: *Thematic Analysis, Non-Teaching Personnel, Technology Issues, Digital Literacy, Educational Setting, Carmen North Cotabato.*

INTRODUCTION

In recent years, technology has become integral to education, necessitating that non-teaching staff stay updated to effectively perform their roles. Globally, these employees are crucial for managing operational, technical, and administrative aspects, crucial for student safety and success (Lee & Kim, 2022). However, studies in Vietnam and Africa research revealed a significant gap in digital skills among these employees, with a notable percentage approximately 82.5% needing training in digital literacy and cybersecurity (Vaezi & Lai, 2022). Moreover, a majority highlight the need for better communication tools and advocate for institutional investment in staff training to keep pace with technological advancements (Rizvi & Hussain, 2022).

Moreover, the efficient operation of educational institutions depends heavily on non-teaching employees. Like this, they could encounter several types of technological challenges that can limit their capacity to carry out their responsibilities effectively, including restricted access to technology, a lack of training, cyber security threats, integration problems, and technology upkeep. For non-teaching staff to effectively carry out their jobs and contribute to the institution's overall performance, educational institutions must solve the technical challenges they encounter. This is possible with the right training, resources for technology, knowledge of cybersecurity, and efficient upkeep and support for technology (Greenberg & Coatsworth 2022).

In addition, it has been suggested that addressing the technological concerns of non-teaching staff can improve their efficiency and productivity, thereby contributing to the success of educational institutions. The non-teaching staff must receive adequate training, ensure Access to technology, cybersecurity awareness, integration and interoperability, technical support, and regular maintenance to enhance the technology issues faced by the non-teaching staff and boost their efficiency and productivity (Anandarajan & Simmers, 2022).

Furthermore, addressing the technology concerns of non-teaching personnel in the Philippines is intended to enhance the quality of education in the country. Non-teaching personnel play a vital role in supporting the efficient operation of educational institutions in the Philippines, where the education sector is swiftly expanding and transforming. Additionally, it can assist non-teaching personnel perform more efficiently and effectively, resulting in improved outcomes and outcomes. This can aid in ensuring that students receive the finest education and support possible, leading to improved academic performance and success (Chakraborty, 2021).

Similarly, by providing non-teaching personnel with access to the most up-to-date technological tools and resources, they can be more innovative in their approach to work and contribute to the success of educational institutions. It also aids in enhancing the safety of educational institutions. Cybersecurity risks are a growing concern, and addressing these risks can help prevent costly and detrimental data breaches and other security incidents at educational institutions (Karakostas & Kardaras, 2019).

METHODS

Research Design

This study employed a qualitative research design. This research approach was utilized to explore and understand phenomena in-depth by gathering rich, descriptive data and examining the meanings, perspectives, and experiences of participants. It was a methodological framework that focused on subjective interpretations and social constructions of reality, aiming to generate detailed insights into the complexities and nuances of human behavior, attitudes, and social interactions (Creswell, J. W. 2013).

Research Sample And Data Sources

The respondents in this survey were chosen from 17 selected non-teaching personnel from Carmen, North Cotabato through purposive sampling. Purposive sampling was used as the sample method. The researcher utilized his or her own discretion to choose study participants from the general population. This was referred to as purposive or judgment sampling. Purposeful sampling is a non-probability sampling method in which the components were chosen for the study. The internal criteria for this study included non-teaching personnel who had provided services in public schools from their initial service until the present. The external criterion for this study encompassed teaching and non-teaching personnel in private schools located both within and outside Carmen, North Cotabato.

Data Analysis

Data analysis in qualitative research involved the systematic examination and interpretation of textual, visual, or audio data to derive meaningful insights and conclusions using thematic analysis. Thematic analysis focused on identifying patterns, themes, and relationships within the data. This approach offered researchers the flexibility to adapt the process according to their research goals and the nature of their data

Similarly, **thematic analysis is** used as a statistical treatment in this study that is a widely used and flexible method for analyzing qualitative data. It involves identifying, analyzing, and reporting patterns (themes) within the data. Thematic analysis can be broken down into several steps:

First, Familiarization with the Data: Begin by thoroughly familiarizing yourself with the data. This might involve transcribing interviews, reading through text, or reviewing audiovisual content.

Second, Generating Initial Codes: To start generating initial codes. These are labels or tags that capture specific ideas, concepts, or patterns within the data. Coding involves labeling segments of text that are relevant to your research question.

Third, Searching for Themes: Review the codes and look for patterns that emerge across the data. These patterns might be recurring ideas, concepts, emotions, or experiences. Themes represent broader concepts that encompass multiple codes.

Fourth, Reviewing Themes: Review and refine the identified themes. This might involve grouping related codes together under a broader theme and clarifying the connections between themes.

Fifth, Defining and Naming Themes: Once you've identified and reviewed your themes, give them clear and meaningful names that capture their essence. These names should reflect the content and context of the data.

Sixth, Mapping and Interpreting Themes: Analyze the relationships between themes and explore how they relate to each other. Are there overarching themes that encompass sub-themes? Interpret the implications of these themes for the research question.

Seventh, Writing the Report: Organize your findings into a coherent narrative. This might involve describing each theme, providing illustrative examples from the data, and discussing the significance of the themes in relation to your research question.

Eighth, Ensuring Rigor: Thoroughly document your analytical process, including decisions made during coding and theme development. You might also engage in techniques like member checking (where participants review your findings) to enhance the credibility of your analysis.

Research Instrument

In this study, the primary research instrument is an **interview guide questionnaire**, specifically designed by the researcher to facilitate data collection through in-depth interviews and focus group discussions. This approach aimed to capture rich insights and perspectives from participants, providing a comprehensive understanding of the research topic. An interview guide questionnaire serves as a structured tool to guide the researcher and participants through the conversation, ensuring that key topics and questions are addressed consistently across all interactions. The instrument is carefully crafted to cover the specific themes, concepts, and inquiries relevant to the study. By utilizing this instrument, the researcher intended to elicit detailed narratives, opinions, and experiences from participants, contributing to a thorough exploration of the research topic. Before the conduct of the study, the research instruments will be subject for validation from the expert of panels.

RESULTS AND DISCUSSIONS

Profile of the Participant

The profile of the respondents who were participated in the interviews including age, sex, status, and length of service. There 17 respondents voluntarily asserted their

participation in the study. Of the 17 respondents, seven have participated during the conduct of focus group discussions and ten have participated in the interview.

Lived Experiences of Non-Teaching Personnel Pertaining to Technology Issues

This theme presents an in-depth look at the digital hurdles encountered by non-teaching employees in educational environments. It provides an engaging story about the day-to-day lives of these vital but frequently undervalued staff members, highlighting the impact of technology on their work. The narrative focuses on how technology intersects with and supports essential roles in education. The three sub-themes explored are: Efficiency and Productivity Enhancement, Workplace Technological Integration, and Administrative Efficiency and Technology Enhancement.

Efficiency and Productivity Enhancement. The focus of Efficiency and Productivity Enhancement within the study about Technology Issues of Non-Teaching Personnel predominantly revolves around the role of modern technological innovations and digital resources in augmenting the efficiency and output of non-teaching staff at educational institutions. This investigation delves into the effects of technology on various aspects of their roles, including administrative functions, communication processes, management of data, and other key areas where non-teaching staff members are instrumental. Also, to understand how these technological tools not only streamline their daily tasks but also contribute significantly to the broader educational environment.

This imply that implementing and effectively utilizing appropriate technology can significantly streamline administrative processes, reduce workload, and enhance overall productivity. This can lead to improved job satisfaction among non-teaching staff, better resource management, and potentially, a more effective educational environment.

The ideas align with Bates (2019) research, which emphasized exploring the digital literacy levels among non-teaching staff and how it influences their proficiency in utilizing technology in their respective roles. This study could extend to assess the impact of training programs aimed at bolstering digital competencies among these personnel, thereby enhancing their technological skills. Additionally, it might explore the broader implications of such training on the overall efficiency and technological adaptability of the non-teaching workforce in educational settings.

In a similar vein, Selwyn's (2020) work centers on the transformative effects of automation and technological tools on conventional non-teaching roles in the educational sector. This encompasses an examination of both the advantages and the difficulties encountered by staff as they adapt to these technological advancements. Further, the study might delve into how these changes are reshaping job descriptions, skill requirements, and the overall dynamics within educational institutions, offering insights into the future landscape of non-teaching roles influenced by technology.

Similarly, the theme of **Workplace Technological Integration**, as investigated in the context of Technology Issues of Non-Teaching Personnel, focuses on the effects of

technology integration in the work environment on non-teaching staff in educational settings. This area of study encompasses the deployment of digital tools and systems for diverse applications, including administrative tasks, communication, data management, and other essential operational roles. The objective of this research is to assess how the infusion of these technological tools transforms existing workflows and the professional responsibilities of non-teaching staff

The study implies that there could be a notable change in job roles and skill sets for non-teaching staff. With the increasing integration of technology in workplace practices, it becomes essential for staff to adapt and acquire new skills. While this transition might enhance operational efficiency, it also introduces challenges in areas like training and managing these changes.

Additionally, the study's implications align with Kotter's (2020) research, which highlights strategies for managing and leading organizational change. This is particularly pertinent in understanding the adaptation of non-teaching staff in educational settings to technological integration. Kotter's insights offer a framework for navigating the complexities of this transition.

In a similar context, Davis' (2021) study underscores the exploration of the effects of technology integration in educational workplaces on non-teaching staff. This research delves into how such integration influences efficiency, productivity, and the work-life balance of these employees, taking into account both the advantageous and challenging aspects of this shift. Davis' work contributes to a deeper comprehension of the multifaceted impact of technology on the day-to-day experiences of non-teaching personnel.

On the other hand, **Administrative Efficiency and Technology Enhancement** investigate how technology plays a crucial role in improving the administrative efficiency of non-teaching staff within educational institutions. The exploration encompasses the utilization of diverse technological tools and systems, including data management software, communication platforms, and automation technologies, to streamline administrative processes, diminish manual workload, and enhance overall operational effectiveness.

The feedback from the participants indicated that embracing technology can considerably decrease the time and resources allocated to mundane tasks, thereby enabling non-teaching staff to devote more attention to strategic and innovative elements of their work. Nonetheless, this transition also necessitates continuous training and adaptation to emerging technologies, which may result in the modification of job roles and the skills required for these positions.

Additionally, the study's implications find support in the work of Davenport & Prusak (2020). They highlight that the research might delve into examining the specific effects of automation tools on the administrative efficiency of non-teaching staff. This includes investigating factors such as improved time management, reduced errors, and enhanced job satisfaction.

Complementing this, Brynjolfsson & McAfee's (2020) research focuses on assessing the role of digital communication tools in augmenting both internal and external communication at educational institutions. Their study aims to evaluate how these tools influence the efficiency of workflows and the collaborative dynamics among staff, offering a broader perspective on the technological impact on institutional operations. This exploration not only sheds light on the practical applications of technology but also on its transformative potential in reshaping administrative processes and teamwork.

Table 1
Live Experiences of Non-Teaching Personnel in Technology Issues

Issues Probed	Core Ideas/ Statements	Codes/ Categories/ Nodes	Essential Themes
Live Experiences of Non-Teaching Personnel in Technology Issues	● Accommodating and you can do your job easily at any condition. (IDI_P1) ● Using technology in my job role helps me a lot to make my job easier. In a way that, I can easily do such task like encoding, making reports and other necessary things related to my job. (IDI_P2) ● It makes my job easier by optimizing technology. It lessens the burden of making reports under time pressure. (IDI_P2) ● Reports are easy to make. (IDI_P3) ● Yes, the software Compatibility issues. For example the reports that I'll doing in my own laptop is easy to open or access but, when you transfer it into another laptop or PC the documents will cannot be open. The alternative ways that I'll do is that seeking help to my colleagues. (IDI_P4) ● If we have laptops desktop computers and cell phones with internet, we can easily be updated of the reports that needed to be submitted, we can easily locate /access our files since its already saved in there. If one of these gadgets malfunctions it may cause delay in our task. (FGD5)	Technological Tools and Accessibility	**Efficiency and Productivity Enhancement**
	● These are computers, printer and cell phones. (IDI_P1) ● I used mobile phone and laptop as a regular basis in my job, as well as internet connection as communication technology. (IDI_P2)	Essential Technological Tools	**Workplace Technological Integration**

	● Laptop, Wi-Fi, printer and cellular phone (IDI_P3) ● Internet, transportation, communication (IDI_P4) ● Laptop and Cellphone (IDI_P5) ● Mobile phone, laptop, printer, internet (IDI_P6) ● Information technology which includes laptop, desktop computers and cell phones all with internet connectivity. (FGD5)		
	● My role in my organization is to maintain financial records and reports to provide management with information for decision making and accounting reports in our school. Technologies I usually use are computer and printer. (IDI_P1) ● I am administrative officer II in the DepEd who administered support functions to the teaching and Non-teaching personnel. I used laptop and mobile phone in daily basis. (IDI_P2) ● My role is to ease the task that teachers report using the laptop, Wi-Fi and printer. (IDI_P3) ● To lessen paperwork's of teachers. (IDI_P4) ● Provide assistance to my school heads in making reports. (IDI_P5) ● Preparing reports like DTR Printing, liquidation and also assists teachers in the preparation of documents in promotion. (IDI_P6) ● I am administrative officer. I am in-charge of administrative and financial management. Laptops and cellphones are key technologies in performing my tasks. (FGD6)	Core Technologies for Administrative Roles	**Administrative Efficiency and Technology Enhancement**

Challenges and Technology Issues Encountered by Non-Teaching Personnel

These themes provide a detailed analysis of the technological challenges encountered by administrative staff in educational settings. This exploration reveals the ways in which non-teaching staff manage and surmount these difficulties, shedding light on their indispensable contribution to maintaining the educational framework in the face of swiftly changing technological environments. It is a vital investigation into the critical,

yet often unnoticed, technological trials in the education sector. The three focused sub-themes are: Technology Productivity and Competency, Managing Technology Privacy Concerns, and Technology Opportunity and Challenges

Furthermore, the **Issues on Technology Productivity and Competency** investigates the dual impact of technology on the productivity and skill levels of non-teaching staff in educational institutions. This examination will specifically assess how the use or lack thereof, of diverse technological tools and platforms affects the efficiency and capabilities of these employees. This involves analyzing factors like the appropriateness of current technology, challenges faced in using technological tools, and the correlation between technological expertise and overall job performance.

These imply that effective technology use could lead to enhanced work efficiency and professional growth, whereas technology issues could hinder performance and competency development. This theme suggests a need for robust technology training programs and the implementation of user-friendly, efficient technological systems in educational workplaces.

Aligned with these implications, Lawler & Mohrman's (2021) work underscores the importance of examining the impact of different technology training programs on improving the digital skills of non-teaching staff. Their research aims to assess how these training initiatives affect the staff's productivity and overall job performance.

Similarly, Pfeffer's (2020) study highlights the need to explore the link between the technological proficiency of non-teaching staff and their effectiveness in performing administrative duties. This research would also involve identifying and analyzing the obstacles that hinder efficient use of technology in their roles. Additionally, it could provide insights into developing strategies to overcome these challenges and enhance the overall technology adoption in educational institutions.

Regarding **Managing Technology Privacy Concerns** likely revolve around the privacy challenges encountered by non-teaching staff in educational institutions while utilizing technology. This encompasses an understanding of the impact of digital tools, data management systems, and online platforms on staff and institutional privacy. The research also assesses the efficacy of existing policies and practices in safeguarding sensitive information and upholding confidentiality in a digital setting.

Therefore, the study's implications are reinforced by Solove's (2021) research. He emphasizes the need to examine the execution and effectiveness of digital privacy training programs for non-teaching staff. This research aims to evaluate how effectively these programs equip staff with the skills necessary for managing confidential information and preventing data breaches.

Concurrently, the research aligns with Acquisti, Brandimarte, & Loewenstein's (2020) study, which underscores the importance of assessing the existing data security protocols within educational institutions. Their focus is on determining the effectiveness of these measures in safeguarding the privacy of both staff and students and

pinpointing areas where enhancements might be needed. This approach extends the investigation to a comprehensive analysis of privacy and data security practices, emphasizing continuous improvement for optimal privacy protection in educational settings.

Moreover, **Technology Opportunity and Challenges** delves into the intricacies and advantages linked to the utilization of technology by non-teaching staff in educational institutions. This theme encompasses the obstacles, including technical challenges, resistance to change, or insufficient training, as well as the potential benefits such as increased efficiency, improved communication, and access to new tools and resources. It addresses the spectrum of experiences faced by non-teaching personnel during the adoption and implementation of technological solutions.

The significant remarks of the participants imply that while technology can offer substantial benefits in terms of efficiency and resource management, institutions must also address the challenges it presents, such as the digital divide, skill gaps, and the need for continuous learning and adaptation. This suggests a holistic strategy in technology integration, considering both human and technical aspects, to maximize its benefits and minimize its drawbacks.

Additionally, the study's implications find reinforcement in Rogers' (2021) work. He suggests that the research should delve into the impact of the digital divide on non-teaching staff's capacity to use technology proficiently. This investigation would cover aspects such as the accessibility of technology, varying levels of digital literacy among staff, and how these factors influence their job performance.

In a related vein, Bridges & Bridges' (2020) study underlines the importance of examining how non-teaching personnel adopt new and emerging technologies. Their research is geared towards understanding the innovative opportunities these technologies present, as well as the obstacles faced during their implementation and acceptance by users. This approach would not on navigate the readiness and adaptability of non-teaching staff in embracing technological advancements but also explore the broader implications of these changes in the educational workplace, from enhancing operational efficiency to navigating the challenges of technology integration.

Table 2
Challenges and Technology Issues Encountered by Non- Teaching Personnel

Issues Probed	Core Ideas/ Statements	Codes/ Categories/ Nodes	Essential Themes
Challenges and Technology Issues Encountered by Non- Teaching Personnel	● These technology issues impact in my productivity and ability to complete my task to perform my routine with more efficiency and it would be done in a short period of time. (IDI_P1)	Productivity and Efficiency Challenges	**Technology Productivity and Competency**

	● This technology issues affect my productivity and ability to complete tasks more quickly. (IDI_P3) ● Yes, I have experienced a technology-related issue while working on project. I was working on a project that required me to use a specific software tool was not functioning properly, and I was unable to complete the task on time. ● To resolve the issue, I contacted the software vendor's technical support team. (IDI_P1) ● Yes, while Consolidating reports. Because some documents that send to me other can cause file error due to different specs of hardware we are using. And to resolved that issues as a consolidator I make a template that can access by all even we have using different specs of laptop or PC. (IDI_P5) ● The data breaches or the unauthorized access to sensitive information resulting in the exposure or theft of personal data. (FGD1) ● Some of the common technology issues that encounter is lack of internet connectivity, internal and external problems of the laptop and desktop computers, virus threat which may cause deletion of files. (FGD4)		
	● As an administrative Assistant I encountered Privacy issues in online transactions, including credit card information mishandling, tracking user behavior for targeted advertising, and data breaches. It must have protocols to secure data like HTTPS, encryption, and two-factor authentication to enhance privacy and secure payment gateways. (IDI_P1) ● The Privacy issues in manufacturers like smart home assistants and wearables that fail to secure data adequately, risking unauthorized access. Resolutions include device encryption, stronger security	Data Collection and Handling	**Managing Technology Privacy Concerns**

	protocols, and user education about privacy settings and permissions (IDI_P2) ● When I using some mobile apps that collect excessive personally identifiable information without user consent, track location data, or share personal information with third parties. Because Many app stores have privacy policies that require developers to disclose their data practices, and users are provided with options to modify app permissions, thus enhancing privacy controls. (IDI_P4) ● I don't have encountered any privacy issues but there are some issues in technology privacy specifically in personal data stored in the cloud or shared online that becomes vulnerable to hacking or unauthorized access. Services like Dropbox, Google Drive, and Microsoft OneDrive to address these issues by implementing strong authentication measures, encryption protocols, and regular security audits. (IDI_P6) ● Yes, Privacy concerns with data collection, including personal information, location, and online activities. Platforms like Facebook, Instagram, and Twitter. To address these concerns, platforms must have implemented privacy settings for users to control their information visibility and offered transparency reports to showcase how data is handled. (FGD1) ● In some mobile applications the Privacy risks when mobile apps collect excessive personally identifiable information without user consent, track location data, or share personal information with third parties. Many app stores have privacy policies that require developers to disclose their data practices, and users are provided with options to modify app		

	permissions, thus enhancing privacy controls. (FGD3)		
	● I usually do a little technical support concerning printers and laptops among my colleagues. (IDI_P2) ● Consolidating reports coming from different schools is quite difficult especially for far flung areas. In order to gather the needed data, the used of internet helps to finished the task. (IDI_P2) ● The Complexity of features with in a software system. Like SF7 template you cannot add on or edit some data because it is already have a formula that formulated. (IDI_P3) ● The hardware and software limitation for example when using such as drawing tablets or graphic display, as a user I encountered challenges related to calibration, sensitivity, or ergonomic design that can cause precision of editing task. (IDI_P5) ● Information technology such as laptop,desktop computers and cellphones has a big role especially in our job. It is also convenient for us especially that we are slowly becoming paperless. (FGD5) ● Technology not limited to personal computers, handheld devices and laptops but also learning and operating system play a vital role in our job as administrative personnel. Having these improves the encoding and turnaround time of document and files submission. Furthermore is essential to have an internet connection in forms of Wi-Fi and LAN connection to facilitate communication with the division and central office (FGD6)	Software Complexity and Usability	**Technology Opportunity and Challenges**

Suggested Interventions to Address Challenges Among Non-Teaching Personnel in Relation to Technology Issues

This theme explores the Suggested Interventions to Address Challenges Among Non-Teaching Personnel in Relation to Technology Issues. It examines the profound

effect that technological challenges have on their roles, emphasizing the necessity for enhanced tech support and training. This analysis highlights the crucial role these staff members play and the importance of addressing their technology-related issues for more effective educational processes. The three specific areas of focus are: Technological Workshop and Training, Technology Leverage and Skill Development, and Positive Impact on Efficiency and Productivity.

Likewise, the **Technological Workshop and Training** potentially investigates the interrelation between the technological expertise of non-teaching staff and the caliber of technological infrastructure in educational institutions, and how this relationship impacts overall efficiency and performance. This area of study would encompass an examination of factors like the suitability and modernity of existing technological tools, the level of digital competence among staff, and how a robust technological infrastructure correlates with staff's ability to effectively use technology in their administrative and operational duties.

Most of the participants believed that its implications are important for educational institutions to invest not only in advanced technological infrastructure but also in the digital upskilling of non-teaching staff. The effectiveness of technology in enhancing workplace productivity is contingent on both the availability of up-to-date tools and the ability of staff to use these tools effectively. This highlights the need for ongoing training programs and continuous investment in technology upgrades.

In a similar vein, the study's implications are reinforced by Venkatesh & Davis's (2021) work. They suggest that the research could concentrate on evaluating the impact of the quality and accessibility of technological infrastructure in educational institutions on the performance and efficiency of non-teaching staff. This involves examining how well-equipped facilities and accessible technological resources contribute to the effectiveness of these employees in their roles.

Complementing this, Peppard & Ward's (2020) study underscores the importance of investigating the efficacy of digital skills training for non-teaching staff. Their focus is on determining how such training programs enhance staff members' proficiency in using technology and how this, in turn, affects their job functions and overall job satisfaction. This exploration could offer valuable insights into the benefits of continuous learning and development in technological competencies for non-teaching personnel in the education sector, highlighting the potential for improved job performance and satisfaction as a result of such initiatives.

Lastly, **Technology Leverage and Skill Development** investigates how technology can be utilized to enhance the skill sets of non-teaching staff in educational institutions. This theme would involve exploring the use of digital tools, online learning platforms, and other technological resources to facilitate continuous learning, skill upgrading, and professional development. It might also consider how technology can be tailored to meet the specific developmental needs of non-teaching staff, ranging from basic digital literacy to advanced technical skills.

The remarks of the participants imply that leveraging technology, non-teaching staff can access a wider range of learning resources, fostering a culture of continuous improvement and adaptability. However, this also raises concerns regarding access to and familiarity with these technologies, underscoring the need for inclusive and accessible learning platforms and resources.

Additionally, the implications of the study align with the perspectives of Siemens & Tittenberger in their (2019) work, where they emphasize the need to assess the effectiveness of diverse e-learning platforms and digital tools in advancing the skills of non-teaching staff. This includes analyzing how such platforms and resources contribute to improvements in job performance and opportunities for career advancement.

This is in harmony with the research of Wenger, McDermott, & Snyder from (2020), which focuses on examining the contribution of digital literacy programs to the professional growth of non-teaching personnel. Their study delves into how these programs impact staff members' abilities to adapt to and effectively utilize emerging technologies in their professional environment. Furthermore, this research could shed light on the broader implications of such educational programs, potentially leading to enhanced technology integration in the workplace and a more digitally competent workforce in educational settings.

Regarding **Upgrade Personnel Adaptability to technology** explores how technology enhances work efficiency and productivity among non-teaching staff in educational institutions. This theme would examine the ways in which digital tools, software, and platforms contribute to speeding up work processes, improving task management, and facilitating the achievement of work goals. It might also consider how technology aids in meeting deadlines, streamlining workflows, and reducing the time and effort required for various administrative tasks.

This indicates that transformation of the workplace environment through technology leads to a more efficient and productive non-teaching workforce. This suggests that educational institutions can achieve significant operational improvements by effectively integrating technology. However, it also implies the need for continuous technology training and support to ensure staff can fully leverage these technological advancements.

Furthermore, the study's implications are bolstered by the work of Brynjolfsson & Hitt (2021) in their research. They propose that the research could delve into the relationship between the adoption of certain technologies by non-teaching staff and the resulting enhancements in productivity and efficiency in time management. This exploration aims to establish a clear link between the use of specific technological tools and notable improvements in workplace performance.

Complementing this, DeSanctis & Poole's (2020) study emphasizes the potential to investigate the role of various digital tools and platforms in streamlining work processes for non-teaching staff. Their research suggests a focus on instances where

the introduction of technology has tangibly improved work efficiency. This includes examining how these digital solutions are being integrated into daily tasks and the overall impact on operational effectiveness within educational settings. By doing so, the study would provide valuable insights into the practical applications of technology and its capacity to transform traditional administrative processes.

Table 3
Suggested Interventions to Address Challenges Among Non-Teaching Personnel in Relation to Technology Issues

Issues Probed	Core Ideas/ Statements	Codes/ Categories/ Nodes	Essential Themes
Overcoming Challenges of Non-Teaching Personnel in Relation to Technology Issues	● We, non-teaching personnel should undergo trainings related to technology (IDI_P1) ● For me, there must a lot trainings and seminars given to the non-teaching personnel. (IDI_P2) ● Optimized the use of internet, improves the technology experience of non-teaching personnel. Information delivered through internet is the fastest way of dissemination. (IDI_P3) ● Yes, it's improved my performance and efficiency in my work task. (IDI_P3) ● Proper information how to use the APPS. (IDI_P4) ● Going paperless in transaction that can be done online improves efficiency and effectiveness because it saves time and effort. (IDI_P4) ● Improve Internet connections (IDI_P5) ● Hiring more I.T expert that could help the department to assist and give more trainings and orientation regarding technology issues. (IDI_P6) ● Yes, It's just an online training but it helps me a lot to	Necessity of Technology Training	**Technological Workshop and Training**

	experience and apply it with regards to my technology issues that me feel resolve the certain issues. (FGD6)		
	● In making liquidation, technology really helped me a lot especially in encoding and storage of data. (IDI_P4) ● Yes, its helps me grow my knowledge base and improve my job skills. (IDI_P4) ● By asking my co Non-teaching personnel and browsing on google (IDI_P4) ● Yes, it's give me understanding in different technology skills. (IDI_P5) ● By seeking help to my co-workers. (IDI_P5) ● Data mining and data sharing that leads to hacking and identity theft. (IDI_P5) ● As of this moment i think is that technology evolution specifically in different SPECs of the unit and updating software in laptop. That can cause unavailable documents in other some user. (IDI_P6) ● Yes, like data storage and retrieving of some files that accidentally deleted. To resolve I just seek some tutorial to the expert. (IDI_P6) ● In Google, YouTube and also to the expert. (IDI_P6) ● Now a day most work relies on technology use in any form of jobs and to have a productive day at work definitely the technology must be integrated. (FGD4) ● In our job, its more on paper works and in order to make it more efficient and effective. Technology should be introduce and learned. (FGD6)	Continuous Learning and Skill Development	**Technology Leverage and Skill Development**
	● My experience with technology in my job it's fasten my works, and helps a lot to advance the assigned task. (IDI_P1) ● The uploading and downloading of some documents that when you open it the data is not available or accessible. (IDI_P1) ● Yes, just like the latest software apps Microsoft 360 that is hard for me to use its	**Positive Impact on Efficiency and Productivity**	**Upgrade Personnel Adaptability to Technology**

	because it's not familiar and not commonly use. (IDI_P1) ● Technology efficiently and effectively improved results by meeting up with deadlines and saves time. (IDI_ P2) ● It really helped me a lot in completing my tasks and make me productive. (IDI_P4) ● It makes my work done easily and hassle less. (IDI_P5) ● It helps me improve the way I carry out task. (IDI_P6) ● Yes, this canvas which I use one time I edited tarpaulins for our program which is easy because of signal but, suddenly it crashes don't have any idea what happen but later on I reboot my phone and its going back again. (FGD6)		

IMPLICATIONS

The research conclusions were derived from a detailed summary of results, providing critical insights, and understanding into the study's core findings and their broader implications.

1. Thematic analysis of Lived Experiences among Non-Teaching Personnel addressing technology issues revealed three essential themes: Efficiency and Productivity Enhancement, Workplace Technological Integration, and Administrative Efficiency and Technology Enhancement. This indicates a call for strategic interventions among Non-Teaching Personnel. Enhancing Efficiency and Productivity suggests a need for tailored training and tools. Workplace Technological Integration emphasizes creating a tech-friendly environment for seamless operations. Administrative Efficiency and Technology Enhancement point to the importance of refining administrative processes through technology. Overall, these implications highlight the necessity of targeted interventions and a tech-savvy approach to address challenges and optimize the role of non-teaching personnel in educational settings.
2. Similarly, the study identified three essential themes that offer a detailed analysis of technological challenges faced by administrative staff in educational settings. The three specific sub-themes include Technology Productivity and Competency, Managing Technology Privacy Concerns, and Technology Opportunity and Challenges. This underscores an important implication. Addressing Technology Productivity and Competency emphasizes the need for ongoing training and skill development. Managing Technology Privacy Concerns calls for robust policies and practices to safeguard sensitive information. Technology Opportunity and Challenges suggest a balanced approach to harnessing opportunities while

proactively mitigating challenges. These implications collectively advocate for a comprehensive, adaptive, and policy-driven strategy to navigate technological challenges within educational administrative settings, promoting competence, privacy, and strategic technological utilization.

3. Furthermore, the analysis unveiled three themes concerning the impact of Digital Literacy Among Non-Teaching Personnel in educational settings. The specific areas of focus include Technological Workshop and Training, Technology Leverage and Skill Development, and Positive Impact on Efficiency and Productivity. This means that Digital Literacy Among Non-Teaching Personnel. The emphasis on Technological Workshop and Training implies a necessity for targeted educational programs. Technology Leverage and Skill Development underscore the importance of ongoing skill enhancement initiatives. Positive Impact on Efficiency and Productivity suggests that cultivating digital literacy positively influences professional effectiveness. These scholarly implications advocate for structured training, continuous skill-building, and highlight the direct correlation between digital literacy and heightened efficiency and productivity among non-teaching personnel in educational settings.

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