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Technological Teaching Delivery and Digital Capability of Public Senior High School Teachers

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Abstract. The study aimed to determine the extent of technological teaching delivery and the extent of digital capability of public senior high school teachers. This study employed a non-experimental quantitative research design utilizing descriptive-correlation method. Validated questionnaire and Universal sampling procedure were utilized considering the minimal number of teachers in the research locale. One hundred twenty (120) public senior high school teachers were the respondents of the study. Using mean, pearson-r, and regression analysis, the findings revealed that the technological teaching delivery was extensive while the extent of teachers' capability of public senior high school teachers was also extensive. Moreover, the overall results disclosed that indicators for the technological teaching delivery were positively correlated to the teachers' capability of public senior high school teachers. Further, results from the regression analysis revealed the following have a strong influence of technological teaching delivery on the teachers' capability of public senior high school teachers: online learning, blended learning, and hybrid learning. It is recommended that the Department of Education (DepEd) should prioritize the continuous professional development of teachers by implementing regular digital literacy training, certification programs, and workshops on emerging educational technologies. For teachers, embracing digital transformation requires continuous self-improvement and adaptability.

KEY WORDS

1. Technological teaching delivery 2. teachers' capability 3. continuous professional development

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1. Introduction

In an increasingly developed digital world, technology is significant in building a strong foundation for the nation's economy and progress. Information and Communication Technology (ICT) plays a key role as development enablers in transforming the world. The advancement of technology in the academe accelerates education for all in different countries, enhancing the instruction and curriculum. To address this issue, educational public institutions must invest in professional development programs that enhance the digital capability of their teachers. These programs should focus on equipping teachers with the necessary digital skills and knowledge to effectively integrate technology into their teaching practices. By doing so, one can ensure that our public senior high school teachers are well-prepared to meet

the demands of the digital age and provide high-quality education to their learners. Technological teaching delivery and digital capability of public senior high school teachers aimed to respond to a critical gap in the local educational setup namely the absence of country-specific information on how teachers in public schools, like those under Cluster VIII of the Division of Davao City, are managing the increasing calls of digital teaching. In spite of initiatives by the Department of Education to incorporate technology in instruction, most teachers in resource-constrained and geographically remote regions still face challenges in adapting to digital technology because of limited access to training, equipment, and infrastructure. This disparity has been more pronounced in the wake of distance learning and blended modalities, which exposed inequalities in teachers' digital skills. The research aimed to offer a more distinct view of the manner in which these public-school teachers conduct technology-driven teaching and whether or not they can use digital devices effectively, the overall objective being to guide local education stakeholders, school administrators, and policymakers in the creation of applicable and lasting support programs as required by the community. In conclusion, technological teaching delivery plays a vital role in enhancing the digital capability of public senior high school teachers. By embracing technology in education, they can create more engaging and interactive learning environments that cater to the diverse needs of the learners. However, educational public institutions need to invest in professional development programs that enhance the digital skills of teachers. In doing so, public senior high school teachers are well-equipped to meet the demands of the digital age and provide high-quality education to their learners. From a global perspective, Redecker and Punie (2020), provide an in-depth look at the digital competence required by teachers in the 21st century. It offers a framework for assessing the digital capabilities of senior high school teachers and suggests professional development strategies for enhancing digital skills. The research emphasizes how technology can improve teaching delivery when teachers are digitally competent. Zhao and Frank (2022), examine how public senior high school teachers implement technology in their teaching delivery and the factors that influence its success. It highlights that public senior high school teachers with strong digital capabilities are better able to engage learners and use technology effectively in classroom instruction. In an article written by Laurillard (2021), "Rethinking Teaching for the Digital Age: Lessons from the Pandemic". This article analyzes the digital capabilities required by public senior high school teachers to adapt to remote and hybrid learning environments. It also discusses how the pandemic accelerated the need for digital delivery and the necessity for teachers to enhance their digital competencies to meet these challenges. In an article published by Koehler and Mishra (2021), expands on the TPACK framework, which integrates content knowledge, pedagogy, and technology. It emphasizes how important digital capabilities are to public senior high school teacher's ability to provide quality instruction and how mastering this integration results in improved teaching methods in senior high school settings. The Philippines responded to the call of the World Health Organization (WHO) with their respective Ministry and Department of Education. Various educational platforms and various websites were explored. Examples of the educational platforms that have been used all around the world are Digital Library, Internet streaming or Broadcast, Learning Management Systems, Open Educational Resources, YouTube, and the like based on their availability in the place utilized. Meanwhile, in higher education, universities, and college, institutions have made use of Zoom, Google Hangouts, Google Meets, and Microsoft Teams. Teachers were greatly en-

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couraged to action on various websites, such as Facebook, What's App, Google Forms, EdTech Hub, UNESCO Education Alliance, Learning Keeps Going, Inter-Agency Network for Education in Emergencies, Commonwealth of Learning, and many others (World Bank, 2020). Bulao (2021), assesses the digital proficiency of Philippine public senior high school teachers amid the pandemic-induced shift to online instruction. The results highlight the need for a systematic training program targeted at improving teachers' abilities to use technology in the classroom. The findings show large gaps in digital capabilities. In support of Alcaraz (2022), investigates the readiness of public senior high school teachers to utilize technology in their instructional practices. The results indicate that while there is a strong willingness among teachers to adopt technology, many face challenges related to inadequate training and limited resources. The study calls for enhanced institutional support to bolster teachers' digital capabilities. In a study conducted by Cruz (2022) of Davao City-based researchers, this study evaluates the digital competence of public senior high school teachers in Davao City, particularly in their ability to use technology for instructional purposes. The findings indicate a varied level of digital skills among teachers, with some expressing confidence in using technology while others require further training. The study highlights the need for targeted professional development programs to enhance teachers' technological delivery capabilities. In Cluster VIII, the Division of Davao City still currently embracing technology in the application of blended education. The significance of studying technological teaching delivery and the digital capability of public senior high school teachers lies in its potential to improve the quality of education in a rapidly digitalizing world. As technology becomes increasingly integral to learning, understanding teachers' digital competencies is crucial for addressing gaps in instruction and ensuring equitable access to quality education. This study can guide policymakers and educational leaders in designing targeted professional development programs and providing the necessary resources to enhance teachers' digital skills. The social value of this research extends to fostering digital inclusion, where both teachers and students are empowered to navigate the demands of the modern world. By equipping teachers with stronger technological capabilities, the study contributes to closing the digital divide, improving learner engagement and outcomes, and preparing future generations for the workforce. Ultimately, this research helps build a more adaptive, innovative, and inclusive educational system that meets the needs of all learners. It has various challenges that need to address especially in terms of using technology in the new normal learning. Teachers are encouraged to use laptops, cell phones, personal computers, and any other available gadgets in their working place. Using Zoom, FB, messenger, and Google Meet to follow up on the needs of the learners, especially in reading.

1.1. Theoretical/Conceptual Framework — This research is based on various major theories in education that outline the position of technology within the learning process. To start, it borrows from Glister's (1997) as cited by Galo (2021) Digital Literacy Theory, which calls attention to competencies and abilities needed in handling digital resources and tools effectively. In public senior high schools, especially those in Cluster VIII of the Division of Davao City, this theory highlights how the capabilities of teachers to navigate digital platforms, assess digital resources, and communicate via technology are crucial. With technology becoming even more embedded in teaching, digital literacy among teachers was the key to conforming to contemporary teaching strategies and helping learner learning. The research is also backed by the Theory of Connectivism, as advanced by George Siemens and Stephen

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Downes (2011), which investigates learning in a networked world. This theory emphasizes the interdependence of learning communities, where knowledge is built through collective interaction, conversation, and the synthesis of networked information. In the context of the Philippines, this is especially applicable since virtual platforms can also act as a bridge connecting teachers to collaborate and learn from each other, creating an environment for common learning despite distances or shortcomings in resources. A theory that relates to both technological teaching delivery and the digital capability of teachers is the Digital Competence Framework for Educators (DigCompEdu), developed by the European Commission (2017). This framework provides a comprehensive understanding of the digital competencies' teachers need to integrate technology effectively into their teaching practice. DigCompEdu outlines six areas of digital competence, including professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' digital competence. It emphasizes that teachers must not only be able to use digital tools but also understand how to apply them pedagogically to enhance learner engagement and learning outcomes. The framework aligns with the goals of technological teaching delivery by ensuring that educators possess the necessary skills to design, implement, and evaluate technology-enhanced learning environments. Thus, DigCompEdu serves as a practical and theoretical foundation for understanding how the digital capability of teachers directly influences the effectiveness of technology integration in education. Finally, the research applies Behaviorism Theory, as explained by Watson (1970) and referenced by Gunnars (2021), which is concerned with the influence of the environment on learning. This theory is relevant to understanding the way teachers' engagement with technology can influence their teaching practices and instructional strategies. It supports the belief that learning, especially in the age of the internet, is influenced by the environment and that technology can be used both as a reinforcing tool and a means to produce organized learning experience. Together, these theories provide a comprehensive framework for investigating the technological teaching delivery and digital competence of public senior high school teachers in Cluster VIII, Division of Davao City. Presented in Figure 1 is the theoretical and conceptual framework of study where the technological teaching delivery with the indicators of independent variable namely: online learning, blended learning, and hybrid learning and the dependent variable is the digital teaching capability which includes technical knowledge, learning design, learning competency, and literacy competence of public senior high school teachers of Cluster VIII, Division of Davao City.

2. Methodology

This chapter discusses the research methods, which give direction in this investigation. It includes the research design, research respondents of the study, research instrument, and the data gathering procedures.

2.1. Research Design—The non-experimental quantitative research design using the correlational method was used in this study. Bedo (2021) stated that the descriptive correlational method was utilized to identify the relationship between two or more variables. Zozobrado (2021) highlighted that this approach was employed since the research intended to elucidate the characteristics of the data and provide a description of the individuals involved.

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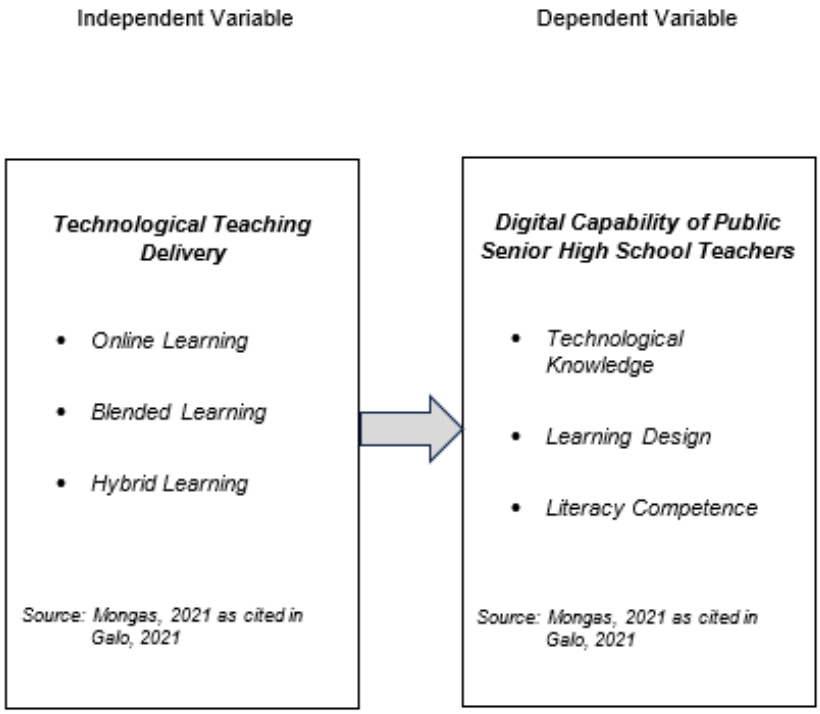

Fig. 1. Theoretical and Conceptual Framework of the Study

This study was descriptive, as it assessed the technological teaching delivery of public senior high school teachers of Cluster VIII, Division of Davao City. It was also correlational, as it determined the relationship between technological teaching delivery and the digital teaching capability of public senior high school teachers.

2.2. Research Ethics—The research promptly observed the protocols deemed appropriate and necessary as the standard guidelines in carrying out the study, following the study protocol assessment criteria, particularly in managing the population data. The survey questionnaire, along with supporting authors, was submitted for further evaluation. After receiving approval from the Ethics Committee, the researcher proceeded to the next phase of the study. Social Value. The use of technology in the delivery of education has emerged as a determining factor in the improvement of the quality of education in public senior high schools. It is socially valuable since it closes the digital divide and fosters inclusive, accessible, and equitable learning opportunities. When teachers in public schools have strong digital capacities, they can more effectively craft rich, student-centered experiences that address the needs of diverse students, particularly disadvantaged learners. Not only does this enhance academic achievement but also enable students to develop 21st century skills critical to future job opportunities and civic engagement. In the context of public senior high schools, especially in areas with limited resources, teachers' digital competence demonstrates loyalty to the ideals of educational innovation, resilience, and agility. In addition, it enhances community confidence in the public schooling system since technologically enabled teachers act as role models and agents of change, motivating learners and helping shape a generally better-informed and digitally literate society. Informed Consent. The researcher asked for the respondents' permission through written informed consent. They were adequately informed about the purpose of the study, and ample explanation was given to them to ensure a better understanding of the reason for their participation,

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allowing them to decide whether or not to take part. It was made clear that the respondents' involvement in the study was voluntary. If they refused to participate, the researcher did not force them. Furthermore, the researcher remained cautious in ensuring the respondents' psychological well-being. Written permission was secured from the respondents. The researcher informed them that the study aimed to explore the role of educational management in enhancing teacher professionalism. Vulnerability of Research Participants. The study's respondents were teachers; therefore, they were not considered vulnerable, as all of them were of legal age and were not regarded as highly vulnerable psychologically. The researcher emphasized that the survey would be conducted at the respondents' convenience. Additionally, the researcher ensured that the confidentiality of the information disclosed was protected. Privacy and Confidentiality. This study observed the Data Privacy Act of 2012. The researcher ensured that the data could not be traced back to the participants, who were the natural sources of information, in order to protect their identities. Moreover, the researcher guaranteed that no personal data was shared without the respondents' consent. Thus, access to the data was limited to the researcher alone to ensure that no personal information was exposed. To protect the privacy of the respondents, it was assured that the researcher was the only person who had access to the survey information. After collecting the necessary data, the researcher permanently deleted all the survey results to ensure that the data could not be traced back to the respondents. Risk, Benefits, and Safety. In administering the survey questionnaires, the researcher fully disclosed to the respondents the nature of their participation and thoroughly and adequately explained the purpose and benefits of the study, as well as the confidentiality of their responses, as stated in the online survey questionnaire. The respondents, without restrictions, were able to ask questions related to the study. Furthermore, the researcher ensured that the respondents were not subjected to harm in any way whatsoever. Moreover, the questionnaire and interview guide used in this study did not contain any derogatory or unacceptable statements that could be offensive to the respondents. The study was designed purely to collect academic information relevant to the research, and no personal information was requested. To minimize inconvenience, the researcher ensured that the respondents were given ample time to complete the survey questionnaire online. The respondents were given the freedom to skip any questions that caused them psychological or emotional distress, and they were free to withdraw from the study at any point if they were uncomfortable discussing the information being asked. The researcher valued their participation and prioritized their welfare throughout the study. Justice. To avoid impartiality in selecting the respondents, the researcher regarded all potential participants equally, regardless of whether they ultimately participated in the study. The researcher was not prejudiced in choosing respondents. Anyone who met the qualifications of being bona fide, permanent, regular secondary teachers in the purposively selected schools was included in the study. During the research process, the researcher respected the respondents by interrupting their routines as little as possible. To compensate for the time, they spent during data gathering, the researcher provided a token of appreciation. This token consisted of an assortment of souvenirs. The tokens were sent via courier and were carefully sealed in packages. Additionally, each token was sanitized before being delivered to the respondents' doorsteps. Transparency. Any communication concerning the research was conducted with honesty and transparency. To safeguard the welfare of the participants, the researcher adequately implemented the methods discussed in the study. All the necessary

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documents that supported the data analysis were included. Notably, the researcher described the extent of the respondents' involvement in the study and explained how objectivity was maintained in analyzing the data and presenting the study results. Qualification of the Researcher. The researcher ensured that other factors, such as conflicts of interest, did not influence the respondents' responses. The respondents, their parents, and the school administrators of the participating schools were allowed access to the findings of the study, provided they followed the proper protocol to protect the anonymity of the respondents. The researcher also acknowledged the efforts of every individual who contributed to the success of the study. A furnished copy of the research results was provided to the Schools Division of Davao City so that it could be accessed by the respondents and used for learning and further study. Adequacy of Facilities. The researcher recognized that access to up-to-date digital tools, such as computers, data analysis software, and a stable internet connection, was essential for collecting, processing, and analyzing information effectively. In addition, the availability of a conducive workspace, reliable communication tools for coordinating with teachers, and access to the school's technological infrastructure (such as computer labs or digital teaching materials) were vital to understanding how these resources were being utilized in classrooms. The researcher's ability to conduct digital surveys, interviews, or focus group discussions also depended on the presence of adequate facilities, both in the field and during the data analysis stage. Furthermore, logistical support, such as transportation to remote areas, was necessary to assess schools with varying levels of technological capability. These resources enabled the researcher to evaluate the technological teaching delivery and digital competency of teachers accurately, leading to more insightful findings and recommendations for improving the educational landscape. Community Involvement. Community involvement during every phase of the research, from planning to reporting, was considered a good practice. Therefore, the researcher planned to share the findings generated with the community. Community involvement was given primacy in making decisions about the research agenda, selecting appropriate methods to apply in their context, and utilizing the results or findings. The findings of the study were shared with the community through gatherings, fora, and conferences.

2.3. Research Respondents—This study was conducted in sixteen (16) schools of Cluster VIII, Division of Davao City. The respondents consisted of 120 selected senior high school teachers from Cluster VIII, Division of Davao City. They had been in service for at least five to ten years of teaching experience in the Department of Education (DepEd) and had provided insights regarding the technological teaching delivery and digital capability of public senior high school teachers. Random sampling was applied in this study due to the wide geographic distribution of the respondents. In this type of sampling, every member of the population had an equal chance of being selected to participate in the study. The main goal of random sampling was to focus on characteristics of the population of interest that would best enable answering the research questions. The idea was to highlight the precise similarity and its relation to the topic being researched. The respondents of the study were the 120 randomly selected public senior high school teachers from Cluster VIII, Division of Davao City, for the School Year 2023-2024. Randomly selected large schools were used in the study. The classification of the schools was based on the DepEd Memorandum No. 32, s. 2020. Using Slovin's Formula at a confidence level of 0.05, the respondents were chosen through random sampling. The required number of respondents to represent this study was drawn from a total population of one

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hundred seventy-two (172). Thus, the total population of respondents was one hundred twenty (120). Like most public senior high schools, all the randomly selected schools implemented the K to 12 basic education programs, offering senior high school. These schools offered programs that were beneficial to learners, as they equipped them with the knowledge, skills, values, and attitudes needed for lifelong learning.

2.4. Research Instrument—This study adapted a questionnaire on the technological teaching delivery pattern, which was modified by the researcher from the Theory of Connectivism (2011) by George Siemens and Stephen Downes, as cited in Mongas (2021). This theory provides a framework for understanding learning in a digital world, explaining how Internet technologies can contribute to new avenues of learning. Connectivism is a theory for understanding learning wherein the community is a division of similar areas of interest that allows for interaction, sharing, dialoguing, and thinking together. This was supported by the Digital Literacy Theory by Glister (1997), as cited in Galo (2021). This theory encompasses the skills and abilities necessary for access once technology is available, including an understanding of the language and component hardware and software required to successfully navigate the world of technology. The researcher's choices served as the primary means of modifying the questionnaire to make it more appropriate for the study. Experts from the DepEd Division of Davao City validated the modified questionnaire. Pilot testing and expert comments ensured the validity of the instrument. A pilot test was conducted by computing Cronbach's Alpha, which yielded a value of 0.793, to verify the instrument's reliability. The survey was split into two (2) sections: public senior high school teachers' digital capabilities and technological delivery of instruction. Hence, Cronbach's value of the construct met the minimum reliability threshold of 0.764, indicating that the measures used were consistent enough for the study. In terms of the instrument's face validity, the items were modified to suit the purpose of the study and were validated by experts. The questionnaire was then presented to the adviser for comments, corrections, and suggestions. Part 1 of the questionnaire contained the items technological teaching delivery with the following online learning, blended learning, and modular learning. Part 2 pertains to the digital capability with the dimensions, namely: technical knowledge, learning design, learning competency, and literacy capability. The perceptions of the respondents among the public secondary school teachers of Cluster VII, Division of Davao City were based on the following Five-point Likert rating scales:

2.5. Data Gathering Procedure—Permission to conduct study. The researcher requested endorsement in writing from the Graduate School Dean to carry out the research work. Through the appropriate channels, the researcher obtained a permit from the Office of the Schools Division Superintendent of the Division of Davao City to conduct the study, with approval from the Public Schools District Supervisor (PSDS) of the various schools. Distribution and retrieval of questionnaires. Once the study authorization was approved, the sets of questionnaires were distributed to the respondents via Google Forms and through the email addresses of the teachers and school administrators. Immediately upon completion of the questionnaires, the researcher retrieved them and received the responses via Messenger or through the researcher's email address. Collection and statistical treatment of data. The protocols established by the Inter-Agency Task Force (IATF) standards were followed during the data collection process. The IATF, a task force established by the Philippine government's executive

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Descriptive Equivalent and Interpretation of Technological Teaching Delivery

Range	Descriptive Equivalent	Interpretation
4.20–5.00	Very Extensive	The technological teaching delivery is always evident.
3.40–4.19	Extensive	The technological teaching delivery is oftentimes evident.
2.60–3.39	Moderately Extensive	The technological teaching delivery is sometimes evident.
1.80–2.59	Less Extensive	The technological teaching delivery is rarely evident.
1.00–1.79	Not Extensive	The technological teaching delivery is not evident.

Descriptive Equivalent and Interpretation of Digital Teaching Capability

Range	Descriptive Equivalent	Interpretation
4.20–5.00	Very Extensive	The digital teaching capability consistently shows a very high level.
3.40–4.19	Extensive	The digital teaching capability consistently shows a high level.
2.60–3.39	Moderately Extensive	The digital teaching capability consistently shows a moderate level.
1.80–2.59	Less Extensive	The digital teaching capability consistently shows a low level.
1.00–1.79	Not Extensive	The digital teaching capability consistently shows a very low level.

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branch in January 2023, was created to address issues related to newly emerging infectious diseases in the country. To prevent contamination, the data collection process adhered strictly to the IATF procedures. For participants who were unable to complete the questionnaire, a video conference was conducted using various messaging apps such as Viber, Zoom, Messenger, and Google Meet. The collected responses were submitted to the statistician for analysis. The researcher, together with the statistician, tabulated the data, analyzed them, and subjected them to statistical analysis.

2.6. Data Analysis—The following statistical tools were used in the analysis and interpretation of the responses in this study: Mean. It was used to determine the extent of technological teaching delivery and digital capability of public senior high school teachers of Cluster VIII, Division of Davao City. The mean is used as a statistical tool in examining technological teaching delivery and digital capability of public senior high school teachers because it provides a simple yet powerful measure of central tendency. By calculating the mean, the researcher can summarize a large set of data into a single representative value, making it easier to understand the overall level of digital capability and the general effectiveness of technological teaching methods within a group of teachers. This average value helps in identifying the baseline or standard level of performance and digital proficiency across the sample population. Additionally, the mean can highlight disparities and variations within the data, enabling educators and policymakers to identify areas where certain teachers might need more support or training. Using the mean also facilitates comparison between different groups, such as comparing the digital capabilities of teachers from different schools or regions. Overall, the mean is a straightforward and intuitive statistical measure that provides valuable insights into the general trends and patterns in technological teaching delivery and digital capability, helping to inform data-driven decisions and improvements in educational practices. Pearson Product Moment Correlation Coefficient (Pearson-r). This statistical tool was used in determining the significant components of technological teaching delivery and digital capability of public senior high school teachers in Cluster VIII, Division of Davao City. The Pearson Product Moment Correlation Coefficient (Pearson-r) is utilized as a statistical tool in examining the technological teaching delivery and digital capability of public senior high school teachers due to its ability to measure the strength and direction of linear relationships between two continuous variables. In the educational context, Pearson-r is particularly valuable because it allows researchers to determine how closely related different aspects of teaching and digital proficiency are. For instance, by calculating Pearson-r, teachers can assess whether there is a significant correlation between the use of technological tools in teaching and learner performance outcomes, thereby evaluating the effectiveness of technology integration in the classroom. Multiple Linear Regression. This was utilized to determine the significance of technological teaching delivery influencing the digital capability of public senior high school teachers of Cluster VIII, Division of Davao City. By using Multiple Linear Regression is employed as a statistical tool in analyzing technological teaching delivery and digital capability of public senior high school teachers because it enables the examination of the relationships between multiple independent variables and a single dependent variable simultaneously. This approach is particularly beneficial in the educational context where numerous factors, such as teacher training, availability

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of technological resources, learner engagement, and administrative support, can all influence the effectiveness of technology integration in teaching. Multiple Linear Regression facilitates the modeling of complex real-world scenarios, providing a more nuanced and accurate understanding of how various elements of digital capability and teaching practices interrelate.

3. Results and Discussion

Presented in this chapter are the results of the data gathered. Two sets of research were employed to determine the extent of technological teaching delivery and digital capability of public senior high school teachers in Cluster VIII, Division of Davao City. The discussion of the results and interpretations were presented accordingly based on the statement of the problems. Presentation of the interpretation was arranged according to the sub-headings: The extent of technological teaching delivery in terms of online learning, blended learning, and hybrid learning; the extent of the digital capability of public senior high school teachers in terms of technical knowledge, learning design, literacy competence and which of the factors of technological teaching delivery significantly influence the digital capability of public senior high school teachers of Cluster VIII, Division of Davao City.

3.1. Extent of Technological Teaching Delivery—Summary on the Extent of Technological Teaching Delivery. Table 1 discloses the summary extent of technological teaching delivery of public senior high school teachers of Cluster VIII, Division of Davao City. The data shows an overall mean of 3.69 interpreted as extensive. It means that technological teaching delivery is extensive, as perceived by the public senior high school teachers of Cluster VIII, Division of Davao City.

Table 1. Summary of the Extent of Technological Teaching Delivery

No	Indicators	Mean	Descriptive Equivalent
1	Online Learning	3.67	Extensive
2	Blended Learning	3.57	Extensive
3	Hybrid Learning	3.84	Extensive
	Overall Mean	**3.69**	**Extensive**

Mainly, the indicator, "Hybrid Learning" garnered the top mean score of 3.84 expressed as extensive. This implies that hybrid learning and teaching involve using technology to put learners in a range of learning settings in order to accommodate their various learning styles and improve their educational experiences. Miller, et. al., (202) hybrid learning and teaching as including elements like giving students the freedom to select how they want to attend a class, offering comparable activities across all delivery methods, utilizing the same learning resources for every learner, assisting learners in developing the technological skills necessary to participate in class activities across delivery modes, and conducting real tests. On the other hand, the indicator "Blended Learning" received the smallest mean score of 3.57 also described as extensive. This means that blended learning practices are present, they are not as

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consistently implemented as other instructional strategies. It also indicates that challenges in integrating online and face-to-face learning approaches, potential limitations in technological resources, or varying levels of teacher readiness and student engagement in blended learning environments. In these difficult times, teachers must reconsider their involvement in delivering their lessons rather than face-to-face experiences. Schools play a crucial role in this path, as they are the ones that provide instruction and seminars for teachers to be equipped with distance learning skills and information (Darling-Hammond, et. al., (2019) as cited in Lapada, et. al., (2020). It can be garnered from the table that hybrid learning, blended learning, and online learning were high. Blended learning was the least among the indicators of technological teaching delivery. Therefore, teachers are obliged to develop creative initiatives that assist in overcoming the limitations of virtual teaching. Teachers are actively collaborating at a local level to improve online teaching methods. The finding is complimentary to the idea of Dhawan (2020) as cited in Galo (2021) revealing that teaching has provided everyone with an opportunity to pave the way for introducing digital learning. In support, Shank (2020), declared the use of synchronous sessions that can be recorded as part of the asynchronous model.

3.2. Extent of Digital Capability of Public Senior High School Teachers —Summary on the Extent of Digital Capability. Table 2 shows the summary of the respondents on digital capability of public senior high school. The overall results show that the digital capability was extensive, as indicated by the overall mean of 3.82. This means that teacher's ability to effectively use digital tools, platforms, and technologies to live, work, and learn in a digital society.

Table 2. Summary on the Extent of Digital Capability of Public Senior High School Teachers

No	Indicators	Mean	Descriptive Equivalent
1	Technological Knowledge	3.86	Extensive
2	Learning Design	3.91	Extensive
3	Literacy Competence	4.16	Extensive
	Overall Mean	**3.82**	**Extensive**

In particular, the indicator "literacy competence" earned the highest mean score of 4.16, also described as extensive. This means that ability of teachers to effectively understand, use, and create information in digital environments. It emphasizes the essential skills and knowledge teachers need to integrate technology into their teaching practices, professional development, and overall educational responsibilities. Garzón-Artacho, et. al., (2021), in Education Sciences, examine the digital literacy gaps among teachers, emphasizing the critical need for sustained professional development to address these shortcomings, particularly in under-resourced areas. Their research underscores that effectively integrating digital tools into pedagogy is not solely a matter of resource availability but also requires thoughtfully designed teacher training programs. These programs must be tailored to the diverse needs of teachers, ensuring they are equipped with both the technical skills and pedagogical strategies necessary to enhance learning outcomes in increasingly digital classrooms. In definite, indicator "Technological Knowledge" obtained the lowest means score of 3.91 as interpreted, extensive. This means that respon-

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dents demonstrate a fair level of technological proficiency, their knowledge and application of technology are not consistently strong across all areas. It also indicates that they may still encounter challenges in fully utilizing digital tools, integrating technology into their workflows, or keeping up with emerging technological trends. Recent studies by Bwalya and Rutegwa (2023) and Garzón-Artacho, et. al., (2021) highlight the critical role of ongoing professional development in enhancing teachers' digital pedagogy. They stress the importance of integrating technology in learning design while preserving strong pedagogical principles. Digital tools should be purposefully aligned with educational objectives to boost learner engagement, ensuring that technology serves to enrich the learning experience, rather than distract from it. This approach requires a balanced, thoughtful integration of both technology and teaching methods. Today's public senior high school teachers are increasingly required to understand how to integrate technology into classroom practices to enhance teaching and learning. As noted by Salas-Rueda (2020), successful technology integration hinges on teachers strengthening both their technological and pedagogical competencies. This dual focus allows teachers to effectively align digital tools with instructional goals, fostering more engaging and personalized learning experiences. Additionally, research by Bwalya Rutegwa (2023) highlights the importance of ongoing professional development to equip teachers with the skills needed to apply these tools meaningfully in their pedagogical approaches. By enhancing their digital literacy and pedagogical strategies, teachers can better support diverse learners in a technology-rich classroom environment. It can be gleaned from the table that technological knowledge, learning design and literacy competence were extensive. Learning design was the least among the indicators of digital capability of public senior high school teachers. There is, therefore, due to the type of teaching and teaching tools adopted for remote learning, it is inevitable that different groups will acquire different skill sets from teaching via different platforms. The Philippine Department of Education adopted varied learning delivery modalities including, but not restricted to face-to-face, distance learning, blended learning, and homeschooling (DepEd Order No. 12, s. 2020). Parallel to this, there is an arising need for teachers to be prepared for a digital environment due to the approaching fourth industrial revolution (FIRe or 4IR). Accordingly, FIRe is perceived to blur boundaries between physical, digital, and biological spheres (World Economic Forum, 2020). Teaching computer programming to elementary and high school learners serves as a foundation for developing computational thinking skills that extend well beyond programming itself. This instruction acts as a gateway to cultivating problem-solving abilities with applications across diverse knowledge domains. Computational thinking is not limited to the field of computer science; instead, it has a broad and transformative influence across disciplines, including science, technology, engineering, arts, and mathematics (Belmar, 2022).

3.3. Significant Relationship Between Technological Teaching Delivery and the Digital Capability of Public Senior High School Teachers of Cluster VIII, Division of Davao City—Table 3 presents the results of a correlation analysis examining the significant relationship between technological teaching delivery methods and the digital capability of public senior high school teachers in Cluster VIII, Division of Davao City. The overall correlation coefficient (r) 0.693 with a p-value of 0.001 indicates a strong positive and statistically significant relationship between the two variables. This suggests that as teachers improve their use of technological teaching delivery methods, their digital capabilities are likely to enhance correspondingly. Hence, the set null hypothesis is rejected. For senior high school teachers,

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especially in the context of the post-pandemic era, the results underscore the need for comprehensive professional development programs focusing on the effective use of technology in education. Among the sub-indicators, Hybrid Learning exhibits the strongest correlation with digital capability having a correlation coefficient (r) of 0.691 and a p-value of 0.001. This finding reflects the intensive demands hybrid learning places on teachers' digital skills, as it involves seamlessly integrating online and face-to-face components. Teachers implementing hybrid learning must navigate diverse digital platforms, manage real-time interactions with learners, and create engaging digital content. The significant relationship implies that teachers proficient in hybrid teaching are likely to possess high levels of digital competence. For public senior high school teachers in Davao City, this highlights the importance of training initiatives targeting hybrid teaching methodologies.

Table 3. Significant Relationship Between Technological Teaching Delivery and the Digital Capability of Public Senior High School Teachers of Cluster VIII, Division of Davao City

Technological Teaching Delivery	**r**	**p-value**	**Decision on H_0**
Online Learning	0.516	0.001	Reject
Blended Learning	0.422	0.001	Reject
Hybrid Learning	0.691	0.001	Reject
Overall	**0.693**	**0.001**	**Reject**

Online Learning also shows a significant positive correlation with digital capability garnering a correlation coefficient (r) of 0.516 and a p-value of 0.001. This suggests that teachers' proficiency in delivering lessons through online platforms is closely tied to their digital skills. Online learning demands familiarity with learning management systems, virtual communication tools, and the ability to design interactive online activities. The correlation emphasizes the significant role of digital competence in online teaching, particularly in addressing the challenges of maintaining learner engagement and ensuring accessibility. For public senior high schools in Davao City, the findings suggest that providing ongoing training in online pedagogy and digital tools is essential for improving teachers' effectiveness in this mode of delivery. Blended Learning, while showing a slightly lower correlation compared to online and hybrid learning garnering a correlation coefficient (r) of 0.422 and a p-value of 0.001, still indicates a statistically significant relationship with digital capability. This mode of delivery, which combines traditional in-person teaching with online activities, requires teachers to balance digital and face-to-face interactions effectively. The moderate correlation suggests that while digital skills are important for blended learning, they may not be as critical as in purely online or hybrid formats. However, the findings imply that teachers with stronger digital capabilities are better equipped to maximize the potential of blended learning, such as by leveraging digital tools to complement face-to-face instruction. For public senior high school teachers in Davao City, enhancing digital proficiency could lead to improved integration of technology into blended learning environments, thereby enriching the learning experience for learners.

3.4. Regression Analysis on the Significant Influence of Technological Teaching Delivery

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on the Digital Capability of Public Senior High School Teachers of Cluster VIII, Division of Davao City—The results presented in Table 4 reveal the regression analysis examining the influence of technological teaching delivery on the digital capability of public senior high school teachers in Cluster VIII, Division of Davao City. The overall analysis indicates that technological teaching delivery significantly predicts digital capability, f-value of 43.240, and a p-value of 0.001. The r-value of 0.727 with an R^2 of 0.528 indicates that 52.80 percent of the variance in digital capability can be explained by the combined effects of online learning, blended learning, and hybrid learning. The high explanatory power of these variables highlights the critical role of technological teaching delivery in enhancing digital capabilities among teachers. For public senior high school teachers, the results imply that proficiency in technological teaching methods is essential for effective instruction in the modern educational environment. Specifically, Hybrid learning emerges as the strongest predictor of digital capability, as evidenced by the highest standardized beta coefficient (Beta) of 556), t-value of 7.285, and a significant p-value of 0.001. The significant influence of hybrid learning reflects the complex demands of integrating online and face-to-face modalities. Teachers must skillfully manage digital tools while maintaining a cohesive instructional approach that accommodates both environments. The high predictive strength of hybrid learning highlights its potential to drive digital capability improvements among teachers. For the Division of Davao City, this highlights the importance of providing targeted professional development programs that equip teachers with the necessary skills to excel in hybrid teaching. Investments in advanced technologies and supportive infrastructure are also critical to maximizing the benefits of hybrid learning for both teachers and learners. Online learning also shows a significant and substantial influence on digital capability, with a standardized beta coefficient (Beta) of 0.486, t-value of 5.823, and a p-value of 0.001. The findings reflect the increasing reliance on online platforms for instructional delivery, particularly during and after the COVID-19 pandemic.

Table 4. Regression Analysis on the Significant Influence of Technological Teaching Delivery on the Digital Capability of Public Senior High School Teachers of Cluster VIII, Division of Davao City

Technological Teaching Delivery	**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Decision on H_0 / Interpretation**
Constant	1.464	.244		6.001	.001	
Online Learning	.993	.058	.486	5.823	.001	Reject / Significant
Blended Learning	.349	.060	.463	4.267	.005	Reject / Significant
Hybrid Learning	.407	.056	.556	7.285	.001	Reject / Significant
$R = 0.727$, $R^2 = 0.528$, F-value = 43.240, p-value = .001						

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Teachers who excel in online teaching often possess advanced digital skills, including proficiency in learning management systems, video conferencing platforms, and content creation tools. The significant relationship between online learning and digital capability suggests that efforts to enhance teachers' online teaching competencies could lead to broader improvements in their overall digital proficiency. For public senior high schools in Davao City, these findings reinforce the need to prioritize digital training workshops and provide continuous support for teachers navigating the transition to online instruction. Blended learning, while showing the lowest standardized beta coefficient (Beta) of 0.463, also significantly influences digital capability, with a t-value of 4.267 and p-value 0.005. Blended learning's influence stems from its integration of traditional and online teaching strategies, which require teachers to possess a balanced skill set. The moderate influence of blended learning highlights its role in bridging the gap between face-to-face and fully online modalities. For public senior high school teachers, this finding suggests that strengthening digital skills relevant to blended learning can lead to improved teaching outcomes. The regression model's R^2 of 0.528 indicates that nearly half of the variance in digital capability can be attributed to technological teaching delivery methods, leaving room for other potential factors or indicators. While technological delivery methods are critical, the findings suggest that a comprehensive approach is necessary to fully enhance teachers' digital capabilities. This approach could include addressing barriers such as limited access to reliable internet, insufficient training opportunities, and resistance to adopting new technologies. For teachers in Davao City, addressing these systemic and individual challenges could amplify the positive effects of technological teaching delivery on digital proficiency.

4. Conclusions and Recommendations

This section gives the findings of the study based on the data outcome. The conclusions drawn from the findings of the study are also provided in this section. In order to make a significant contribution, the researcher has made recommendations in this chapter.

4.1. Findings—This non-experimental research using correlation design in this study aimed to determine the extent of technological teaching delivery and the extent of digital capability of public senior high school teachers. Specifically, this study aimed to determine the extent of technological teaching delivery in terms of online, blended and hybrid learning. Moreover, this identified the extent of digital capability of public senior higher school teachers in terms of technological knowledge learning design, and literacy competence. Finally, this study determined the significant relationship between the extent of technological teaching delivery and the extent of digital capability of public senior high school teachers. Using non-experimental research, the extent of technological teaching delivery and digital capability of public senior high school teachers was determined. The respondents of the study were the 120-public senior high school teachers in Cluster VIII, Division of Davao City. A modified teacher-made survey questionnaire was adopted from the study of Digital Literacy Theory (2011) by Glister as cited by Mongas (2021) and Theory of Connectivism (2011) by George Siemens and Stephen Downes also cited in Galo (2021) was utilized as the main instrument of this study. After thorough analysis, significant findings showed that the extent of technological

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teaching delivery in terms of online, blended, and hybrid learning was extensive. Similarly, the extent of digital capability of public senior high school teachers in terms of technological knowledge, learning design and literacy competence was also extensive which means that it was extensive manifested while in terms of technological teaching delivery which is extensive. Hence, the extent of digital capability as demonstrated by public senior high school teachers of Cluster VIII, Division of Davao City was extensive. The overall analysis indicates that technological teaching delivery significantly predicts digital capability, f-value of 43.240, and a p-value of 0.001. The r-value of 0.727 with an R^2 of 0.528 indicates that 52.80 percent of the variance in digital capability can be explained by the combined effects of online learning, blended learning, and hybrid learning. The high explanatory power of these variables highlights the critical role of technological teaching delivery in enhancing digital capabilities among teachers. Finally, indicators of technological teaching delivery such as online, blended, and hybrid learning have significant influence on digital capability of public senior high school teachers of Cluster VIII, Division of Davao City.

4.2. Conclusions—Based on the findings of this study, the following conclusions were offered: The technological teaching delivery of public senior high school teachers were extensive. The digital capability of public senior high school teachers was also extensive. There was a strong positive relationship between technological teaching delivery and digital capability of public senior high school teachers of Cluster VIII, Division of Davao City based on the indicators. Based on the results revealed, the following indicators have a strong influence of technological teaching delivery on the digital capability of public senior high school teachers: Online, Blended, and Hybrid Learning.

4.3. Recommendations—The following interventions were offered based on the conclusions of the study: The Department of Education (DepEd) should prioritize the continuous professional development of teachers by implementing regular digital literacy training, certification programs, and workshops on emerging educational technologies. Additionally, DepEd should invest in upgrading school infrastructure, ensuring stable internet connectivity, providing digital devices, and integrating technology driven assessment tools. School heads should encourage blended learning approaches, promote innovation in lesson delivery, and recognize teachers who excel in integrating technology into their teaching practices. Establishing partnerships with private organizations and local government units can also help secure funding and access to advanced educational technologies. For teachers, embracing digital transformation requires continuous self-improvement and adaptability. Teachers should actively participate in professional development programs, explore interactive teaching strategies, and integrate digital tools such as Learning Management Systems (LMS), online assessment platforms, and multimedia resources. Learners, as key stakeholders in the digital education landscape, should cultivate a proactive approach toward utilizing technology for academic growth. Learners must develop responsible digital citizenship by practicing ethical online behavior and maximizing available digital resources for self-directed learning. Future Researchers may use the findings of this as springboard to conduct a study with a similar subject but with a larger scope to explore other dimensions of the study.

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