

Schools' Digital Maturity and Leadership of Administrators Towards a Contextualized Technology Empowerment Model

Marlon N. Bautista

^a*marlon.bautista1@urs.edu.ph*

^b*marlonbautista.uphsd@gmail.com*

^a*University of Rizal System, College of Education, Pililla Rizal, 1910, Philippines*

^b*University of Perpetual Help System DALTA, Graduate School of Education, Las Piñas City, 1740, Philippines*

Abstract

This study on the "Schools' Digital Maturity and Leadership of Administrators Towards a Contextualized Technology Empowerment Model" aimed to determine the relationship between schools' digital maturity and leadership of administrators among one-hundred fifty-six (156) public elementary schools in the Division of Laguna. This study used the convergent parallel mixed method design, which has been demonstrated to generate correct and reliable answers to the ten (10) basic problems. The researcher gathered all the data from the survey and interview results and conducted a statistical and thematic analysis. The findings revealed that there is a significant relationship between the extent of maturity of schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization revealed that only the school digital maturity and digital leadership of school administrators have a significant relationship with moderate positive correlation. The school administrators derived thematic experiences based on the best practices and issues encountered to strengthen the school's digital maturity. Utilization of ICT in instruction and school operation and management is themed as best practices for school administrators. It also revealed that the issues were lack of ICT training for teachers, poor / lack of internet connectivity and lack of ICT equipment. Lastly, the application of best practices and issues to strengthen the school's digital maturity were ICT in the teaching and learning process, implementation of ICT in institutional management like school learning action cell (SLAC) and support in accessible internet connectivity. It is proposed that school administrators and school digitalization be strengthened using the WIFI: Contextualized Technology Empowerment Model. This model promotes the strengthening of school administrators to survive the challenges and strengthen school digitalization so that they will continue to explore more opportunities in digital setup. The framework should be implemented progressively to ensure its long-term sustainability and effectiveness in strengthening digital practices in school operation and management.

Keywords: contextualized technology empowerment model; digital leadership; digital maturity; school administrators

1. Introduction

The educational system is dynamic and thriving. It opens a world of knowledge and information to school administrators, teachers, and learners. New technology has opened new vistas in every profession, including educational management. The use of Information and Communication Technology (ICT) can help school administrators develop their digital leadership skills. As a result, the school administrations bear a significant amount of responsibility for being technically proficient at advanced institutions because they will

be responsible for managing and operating a school equipped with modern technology. However, some best practices emerge that provide an advantage in the operation of the institution. However, school administrators may encounter issues and challenges when implementing technology in their respective schools. As a result, the question arises as to whether the digital maturity of the schools is related to the level of digital leadership of the school administrators.

Accelerating technological progress propels educational advancements that have a direct effect on how schools operate. As technology becomes more prevalent in society, educational leaders must handle the issues of integrating it into appropriate learning activities and analyzing its use in classrooms. Educational leaders heavily affect the use of technology in classrooms. Technology in education can be enhanced with the assistance of school administrators. Recent research emphasizes the value of effective digital leadership in modern educational settings, such as instructions and school operations. When it comes to incorporating technology into the classroom, Sa'ari et al. (2021) discovered that school administrators with a utilized technical background performed in school. Improving digital leadership in school management may result in more efficient technology use and spending.

In the institutional landscape, a school's digital maturity is defined as an organization's ability to produce value using technology; however, because technology is always improving, digital maturity is a continuing commitment rather than a one-time achievement. In K-12 education, digital maturity can be defined as digital learning maturity. Whether students learn in person, remotely, or in a hybrid setting, the usage of digital resources and approaches helps a school's digital learning maturity, including the school administrators' management, teachers' instruction, and students' learning process (Cajilig, 2019).

Thus, the aim of this study is for the school administrators in the Division of Laguna to identify and analyze their digital leadership and the level of school digital maturity. This serves to contextualize a proposed output that may help in the development of a competent digital leader and a digitally mature institution.

1.1. Statement of the Problem

The study aimed to determine the relationship between schools' digital maturity and the leadership of administrators among public elementary schools in the Division of Laguna.

Specifically, it sought to answer the following questions:

1. What is the demographic profile of school administrators in terms of:
 - 1.1 age;
 - 1.2 sex;
 - 1.3 highest educational attainment; and
 - 1.4 technological leadership seminars and trainings attended?
2. What is the extent of digital maturity of the schools in terms of:
 - 2.1 development of digital competencies;
 - 2.2 ICT culture; and
 - 2.3 ICT infrastructure?
3. What is the level of digital leadership of the school administrators as to:
 - 3.1 leadership and vision;
 - 3.2 productivity and professional practice; and
 - 3.3 support, management and operations?
4. What factors influence the digital maturity of the schools?
5. What is the degree of challenges encountered by the school administrators in terms of digitalization?

6. Is there a significant relationship between the school administrators' demographic profile and the level of school administrators' digital leadership?
7. Is there a significant relationship between the school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization?
8. Is there a significant relationship between the extent of digital maturity of the schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization?
9. How did you apply the best practices and issues you encountered to strengthen the school's digital maturity?
10. What model may be proposed to help the school administrators, and the institution signify the digital leadership and maturity level of the school?

1.2. Hypotheses

The following hypotheses in null form were hereby drawn for acceptance or rejection at five percent (5%) level of significance as basis for valid findings and reliable conclusions supportive to the above problem areas of investigation:

H_{o1}. There is no significant relationship between the school administrators' demographic profile and the level of school administrators' digital leadership.

H_{o2}. There is no significant relationship between the school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization.

H_{o3}. There is no significant relationship between the extent of digital maturity of the schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization.

2. Methodology

2.1. Research Design

This study employed a convergent parallel mixed-method approach, proven to yield accurate and dependable responses to the ten fundamental issues. The convergent parallel design involves simultaneous collection and separate analysis of both quantitative and qualitative data.

Consequently, qualitative data is employed to elucidate and interpret the results of quantitative data analysis. This configuration segments the collected data over the duration into two successive phases. In quantitative research, correlational analysis will serve as the principal method of data gathering, utilizing a custom-designed questionnaire. Thematic analysis is utilized in qualitative data using open-ended interview questions.

2.2. Respondents and Participants of the Study

The quantitative data of the study included a total population of two hundred sixty-one (261) public elementary school administrators from the Division of Laguna. The Raosoft Sample Size Calculator determined that the necessary sample size is one hundred fifty-six (156) respondents. The sample size guided the distribution and collection of a locally devised questionnaire utilizing a four-point scale checklist.

The qualitative data comprised ten (10) chosen elementary school administrators from the Division of Laguna. They will be required to conduct a theme study utilizing open-ended interview questions regarding the use of best practices and challenges faced by school administrators to enhance the institution's digital maturity.

2.3. Research Instrument

The responses were obtained via survey questionnaires, serving as the principal data collecting instrument, with open-ended interview questions designed to meet the study's inquiries and provide data.

In the initial phase, researcher-developed survey questionnaires were employed to quantitatively gather data regarding the demographic profiles of school administrators, the extent of digital maturity within schools, factors influencing this digital maturity, and the challenges faced by school administrators in relation to digitalization.

In the second phase, open-ended questions were utilized to gather qualitative data regarding how school administrators implement the best practices and address difficulties to enhance the school's digital maturity. The responses will be aggregated and recorded. The researcher will analyze data to identify emerging categories or topics.

2.4. Data Gathering Procedure

The researcher obtained official authorization from the Schools Division Superintendent of Laguna to conduct the study following approval from the Graduate School Dean and confirmation from the dissertation mentor. A similar request for clearance was also submitted to the Public Schools District Supervisor and other selected school heads within the Division of Laguna.

Regarding the quantitative phase, the researcher created a survey form meant to compile numerical information pertinent to the project. This instrument underwent face and content validation by a field expert in digital leadership (Public school district Supervisor), school digital maturity (Division Information and Technology Officer), and a Faculty Member of a Graduate School with relevant expertise. Every item on the questionnaire was kept accurate, clear, and relevant by means of their comments. After that, a group of non-main study participants underwent a pilot test of the validated questionnaire. The pilot testing served to evaluate the instrument's internal consistency and provide an understanding of the possible interpretations of the questions. These honest comments given by these respondents helped to improve the tool even more. Once completed, the survey form was sent via both in-person and online venues, including Google Forms. Respondents were given designated time to finish the survey; following that, the data were electronically gathered, processed, and ready for statistical investigation.

For the qualitative phase, the researcher also developed a set of open-ended interview questions meant to provide in-depth insights and a better knowledge of the research issue. Experts in the field validated the interview guide, the same as the survey form, to guarantee its relevance to the study goals and capacity to generate significant answers. Following validation, a small group of people not included in the main sample pilot-tested the interview questions. Their comments and recommendations helped improve the interview guide's language and organization. Depending on the participant's availability and inclination, the last set of questions was then used during planned interviews—both online and in person. After careful transcription, the qualitative material gathered from these interviews was thematically analyzed and subsequently arranged into categories or themes. This helped the researcher to spot trends and derive important conclusions that matched the numerical results.

The data collecting process combined qualitative and quantitative techniques generally to guarantee a thorough and balanced approach to answering the research questions. The researcher guaranteed the accuracy, accuracy, and depth of the research by means of validated instruments, pilot testing, and both online and in-person data collection.

2.5. Statistical Treatment of Data

The researcher collected data from the survey and interview results and performed an analysis to ascertain the correlation between the schools' digital maturity and the digital leadership of school administrators.

The quantitative design in research denotes the systematic empirical examination of social issues by statistical, mathematical, or computational methods. Quantitative research aims to construct and utilize mathematical models, theories, and hypotheses related to phenomena.

The responses were aggregated and recorded as the foundation for implementing the subsequent formulas:

The formula for frequency and percentage of the demographic profile of responders for Problem 1.

Formulas for the weighted mean and standard deviation to assess the centrality and variability of the responses for problems 2, 3, 4, and 5.

The formula for the Pearson r correlation coefficient is utilized to analyze the link between independent and dependent variables for sub-problems 6.1, 6.4, 7.1, and 7.4, serving as the foundation for evaluating null hypotheses.

Utilize the Chi-Square calculation to assess the significant link between independent and dependent variables for sub-problems 6.2 and 7.2.

The formula for Spearman's rank correlation coefficient concerns the relationship between independent and dependent variables for sub-problems 6.3 and 7.3.

The formula for regression analysis concerns the link between observable variables and the latent components for sub-problem 8.

The gathered data was subjected to electronic calculations for speed and accuracy of statistical computations through IBM SPSS Statistics.

In the qualitative design, the answers from the open-ended interview questions for the thematic analysis served as the responses for problem 8 on how the school administrators apply best practices and issues to strengthen the school's digital maturity. The researcher employed six (6) steps in the conduct of the qualitative phase: first, the answers were categorized for familiarization of the concept of themes; second, significant statements were identified to get the theme; third, themes or meanings were formulated; fourth, themes were clustered; fifth, description of each experience was thoroughly described, presented and clustered; and lastly, interpret each clustered data to construct findings.

3. Results and Discussion

This part discusses the findings of the study based on the results gathered using appropriate statistical tools and interpreted based on the criteria assigned. In addition, the tables and interpretations are presented according to the sequence of the statement of the problem.

Specifically, this study sought to answer the following questions:

1. What is the demographic profile of school administrators in terms of age, sex, highest educational attainment and technological leadership seminars and trainings attended?

Table 1.1
Frequency and Percentage Distribution of Respondents' Profile in Terms of Age

Age	Frequency	Percentage
31-33	2	1.28
34-36	3	1.92
37-39	3	1.92
40-42	6	3.85
43-45	15	9.62
46-48	27	17.31
49-51	19	12.18
52-54	28	17.95
55-57	22	14.10
58-60	25	16.03
61-63	5	3.21
64-66	1	0.64
Total	156	100

Table 1.1 shows the frequency and percentage distribution of respondents' profiles in terms of age. It reveals that out of 156 school administrators, the prevalence of 52-54 years belonging to middle adulthood was 28 school administrators or 17.95%, followed by the age bracket of 27 or 17.31%, 46-48 years old, late adulthood ranged from 58-60 years old for 25 school administrators and 22 or 14.10% are 55-57 years old. The age bracket of 49-51 years old obtained 19 school administrators or 12.18%, 15 school administrators under 43-45 years old or 9.62%, and middle adulthood ranged from 40 to 42 years old revealed 6 or 3.85%. From late adulthood, they ranged from 61 to 63 years old, obtained 5 or 3.21%, and both 6 school administrators under early adulthood or 34-36 and 37-39 years old or 1.92%. The early adulthood or youngest among them all obtained 2 or 1.28%, and lastly, the oldest among them all is 1 school administrator or 0.64%.

The respondents combined are mostly in the 46 to 60 age range, suggesting that the study is most certainly aimed at people with significant professional or life experience as school administrators. Minimal representation of the younger and older ends of the age spectrum could influence the generalizability of results over all age groups. This implies that school administrators were prevalent among 52 to 54-year-olds belonging to middle adulthood. This finding is affirmed by Berial (2021), which is based on a survey of 805 primary school administrators in Region X. The findings suggested that younger administrators are digital natives, but middle-aged and senior administrators are digital immigrants who may be willing to use ICT.

Table 1.2
Frequency and Percentage Distribution of Respondents' Profile in Terms of Sex

Sex	Frequency	Percentage
Male	116	74.36
Female	40	25.64
Total	156	100

As presented in Table 1.2, male school administrators dominated at Division of Laguna of 116 or 74.36%, against their female counterparts of 40 or 25.64% of the total 156 who were issued a set of questionnaires during the actual gathering of data. The results emphasize gender inclusiveness and equity; this gender distribution points to a possible administrative focus area. Encouragement of diversity by institutional policies and practices helps to create a more dynamic and balanced academic environment. These imply that male school administrators were dominated at the Division of Laguna. This finding is contrary to the study of Berial (2021), which revealed that school administrators are a male-dominated profession; there are more male school administrators than females in elementary schools. Male administrators still occupy the highest occupational ranks and the highest paying position.

Table 1.3
Frequency and Percentage Distribution of Respondents' Profile in Highest Educational Attainment

Highest Educational Attainment	Frequency	Percentage
Bachelor's Degree	3	1.92
Master's Unit Earned	49	31.41
Master's Degree	44	28.21
Doctoral Unit Earned	19	12.18
Doctoral Degree	41	26.28
Total	156	100

With reference to the highest educational attainment pursued, table 1.3 registers the data. Of the 156 school administrators in the Division of Laguna who were issued a set of questionnaires, Master's Unit Earned was the most pursued 49 or 31.41%, followed by the master's degree with 44 or 28.21% and 41 school administrators or 26.28% for Doctoral Degree pursued. School administrators who obtained doctoral units earned 19 or 12.18%, and last in rank was the bachelor's degree of 3 school administrators or 1.92%.

This distribution reveals a highly educated group, and most of them have either pursued or finished postgraduate education. This implies to school managers a strong dedication among the respondents to academic development. It also shows favorably on institutional initiatives to support advanced degrees and professional development. Still, the large number of respondents with "units earned" but not full degrees points to a possible area for administrative help. To enable faculty members to finish their advanced degrees, institutions should consider providing more flexible graduate programs, scholarships, or study-leave options. This finding is supported by Rayray (2023), who found that most public elementary school administrators 35.9% of school heads held master's degrees with doctoral units, 17.2% had completed doctoral degrees, 23.4% possessed master's degrees, 17.2% had earned master's units, and 6.3% only had baccalaureate degrees.

Table 1.4
Frequency and Percentage Distribution of Respondents' Profile in Terms of Technological Leadership
Seminars and Trainings Attended

Technological Leadership Seminars and Trainings Attended	Frequency	Percentage
School-based Seminar/Training	2	1.28
District Seminar/Training	7	4.49
Division Seminar/Training	32	20.51
Regional Seminar / Training	27	17.31
National Seminar / Training	57	36.54
International Seminar / Training	31	19.87
Total	156	100

Table 1.4 shows the related technological leadership seminars and training attended in the Division of Laguna, which revealed that school administrators with dominancy attended National Seminar / Training with 57 or 36.54%, followed by Division Seminar / Training with 32 or 20.51%. The school administrators attended the International Seminar / Training with 31 or 19.87% and 27 or 17.31% for Regional Seminar / Training. For District Seminar / Training revealed 7 school administrators participated with 4.49% and down the line belonging to school-based seminar/training with 2 or 1.28%.

The findings point to the need to enhance professional development initiatives at the district and school levels, which would be more practically relevant to the immediate demands of administrators. The results of this information show that school administrators must keep seeking a balanced approach in attending local and international trainings to guarantee a well-rounded view. It also improves the availability and quality of localized training to close this difference. This will help leadership at all levels of the educational system to be more suited to manage technological and instructional challenges in a fast-changing environment. These imply that school administrators were prevalence of Technological Leadership National Seminar / Training attended. This finding, supported by Berial (2021), stated that many school administrators were new to their roles and had no ICT training. The study stressed the need for ICT capability-building activities to develop their technology leadership skills.

2. What is the extent of digital maturity of the schools in terms of development of digital competencies, ICT culture and ICT infrastructure?

Table 2.1
Mean and Interpretation of the Extent of Digital Maturity of the Schools in terms of Development of Digital Competencies

Indicators	Weighted Mean	Verbal Interpretation
1. Using ICT to prepare and analyze competencies for teaching and learning.	3.63	Great Extent Digital Maturity
2. ICT assist in the design and management of competencies research work and projects.	3.56	Great Extent Digital Maturity
3. ICT study using collaborative action research to examine how teachers integrate ICT into their classroom.	3.40	Moderate Extent Digital Maturity
4. Continuous training for teachers to utilize digital competencies in curriculum development.	3.63	Great Extent Digital Maturity
5. Networking and collaboration among teachers and educational leaders to develop relevant digital competencies.	3.56	Great Extent Digital Maturity
Overall Weighted Mean	3.55	Great Extent Digital Maturity

Legend: \bar{x} 3.50 – 4.00 Great Extent Digital Maturity 2.50 – 3.49 Moderate Extent Digital Maturity
 1.50 – 2.49 Low Extent Digital Maturity 1.00 – 1.49 Very Low Extent Digital Maturity

Table 2.1 shows that the highest mean in digital maturity of the schools in terms of the development of digital competencies is indicators 1 and 3 about *using ICT to prepare and analyze competencies for teaching and learning* and *continuous training for teachers to utilize digital competencies in curriculum development* obtained with an average mean of 3.63. This was followed by indicators 2 and 5 about *ICT assisting in the design and management of competencies research work and projects* and *networking and collaboration among teachers and educational leaders to develop relevant digital competencies*, obtained a mean of 3.60. Lastly, indicator 3 about *ICT study using collaborative action research to examine how teachers integrate ICT into their classroom*, garnering a mean of 3.40. Overall, the extent of digital maturity of the schools in terms of the development of digital competencies reveals the obtained mean of 3.55 verbally interpreted as a Great Extent of Digital Maturity.

These results show that although schools are making significant progress in the development of digital competency, constant efforts are required to guarantee that all elements—including reflective practice and research—are equally reinforced. Achieving complete digital maturity across all tiers of the education system depends mostly on the continuous support and involvement of educational leaders, together with a culture of innovation and cooperation. This study is affirmed by Dioquino and Paglinawan (2024), who investigated the effect of resource availability and technological mindset on the digital competence of long-

term instructors. The findings revealed that, while teachers had enough access to digital tools, there was a need for better institutional support and training. A positive technological mentality, defined by openness to innovation and favorable attitudes toward technology, was highly linked to increased digital competence.

Table 2.2**Mean and Interpretation of the Extent of Digital Maturity of the Schools in terms of ICT Culture**

Indicators	Weighted Mean	Verbal Interpretation
1. Using ICT to promote basic education.	3.76	Great Extent Digital Maturity
2. Enhancing teachers' digital literacy and promoting innovation in ICT applications.	3.67	Great Extent Digital Maturity
3. Increasing school personnel's self-confidence and motivation on the value of ICT applications.	3.72	Great Extent Digital Maturity
4. Providing access to and support for the use of ICT resources.	3.75	Great Extent Digital Maturity
5. Applying ethical principles, copyright, and intellectual property in the ICT industry.	3.71	Great Extent Digital Maturity
Overall Weighted Mean	3.72	Great Extent Digital Maturity

Legend: \bar{x} 3.50 – 4.00 Great Extent Digital Maturity

1.50 – 2.49 Low Extent Digital Maturity

2.50 – 3.49 Moderate Extent Digital Maturity

1.00 – 1.49 Very Low Extent Digital Maturity

Table 2.2 shows that the highest mean in digital maturity of the schools in terms of ICT culture is indicator 1 about *using ICT to promote basic education* obtained with an average of 3.76, followed by indicator 4 about *providing access to and support for the use of ICT resources* with 3.75 mean average. Among the indicators, indicator 3 got a weighted mean of 3.72 about *increasing school personnel's self-confidence and motivation on the value of ICT applications* and indicator 5, about *applying ethical principles, copyright, and intellectual property in the ICT industry*, obtained an average of 3.71. Lastly, indicator 2, about *enhancing teachers' digital literacy and promoting innovation in ICT applications*, garnered a mean of 3.67. Overall, the extent of digital maturity of the schools in terms of ICT culture reveals the obtained mean of 3.72 verbally interpreted as a Great Extent of Digital Maturity.

Reflecting on these results, they imply that schools are creating a strong and encouraging ICT environment where ethical, confident use of technology is given top priority, together with access to it. The consistently high ratings on all measures suggest that digital culture is being embraced holistically, that is, addressing infrastructure, capacity-building, creativity, and ethics. Schools can keep supporting responsible digital practices and increasing chances for innovation and teamwork in the use of ICT to help sustain this degree of digital maturity. This finding is supported by Timotheou et al. (2023), who emphasized the critical role of school leadership and management in cultivating a strong ICT culture. Digital transformation demands strong leadership, strategic planning, and systematic integration of digital technologies. Cultivating an innovative culture and implementing long-term digital change relies heavily on school leaders' passion and aggressive efforts.

Table 2.3
Mean and Interpretation of the Extent of Digital Maturity of the Schools in terms of ICT Infrastructure

Indicators	Weighted Mean	Verbal Interpretation
1. Access the ICT resources (<i>hardware and software</i>) for learning and instruction, as well as for action and institutional research.	3.47	Moderate Extent Digital Maturity
2. Access the ICT resources for action and institutional research.	3.43	Moderate Extent Digital Maturity
3. Access the ICT resources for pupils (both inside and outside the classroom)	3.44	Moderate Extent Digital Maturity
4. The digital environment and information systems are accessible to school personnel and pupils.	3.47	Moderate Extent Digital Maturity
5. Technical support and maintenance of ICT resources in schools	3.53	Great Extent Digital Maturity
Overall Weighted Mean	3.47	Moderate Extent Digital Maturity

*Legend: \bar{x} 3.50 – 4.00 Great Extent Digital Maturity 2.50 – 3.49 Moderate Extent Digital Maturity
 1.50 – 2.49 Low Extent Digital Maturity 1.00 – 1.49 Very Low Extent Digital Maturity*

Table 2.3 shows that the highest mean in digital maturity of the schools in terms of ICT infrastructure is indicator 5 about *technical support and maintenance of ICT resources in schools*, obtained with an average of 3.53, followed by indicators 1 and 4 about *the digital environment and information systems are accessible to school personnel and pupils* and *access the ICT resources (hardware and software) for learning and instruction, as well as for action and institutional research* with 3.47 mean average. Among the indicators, indicator 3 got a weighted mean of 3.44 regarding *access to ICT resources for pupils (both inside and outside the classroom)*. Lastly, indicator 2, about *access to the ICT resources for action and institutional research*, garnered a mean of 3.43. Overall, the extent of digital maturity of the schools in terms of ICT infrastructure reveals the obtained mean of 3.47 verbally interpreted as a Moderate Extent of Digital Maturity.

Reflecting on the low ratings across most indicators, strategic improvements in ICT infrastructure, especially in terms of access, hardware and software upgrades, and equitable availability across all users—are much needed. Although technical support is a strength, completely realizing the possibilities of ICT in education depends on more general and consistent investment in digital resources and environments. Improving infrastructure will not only support digital learning but also assist in closing gaps in educational equity and innovation. This finding confirmed by Timotheou et al. (2023) that efficient integration of digital technology requires proper infrastructure, such as high-quality broadband connections and access to relevant digital tools. The availability of ICT resources, including software and hardware, has a substantial impact on instructors' abilities to use technology in their instructional techniques. Furthermore, government backing and technical aid are critical for sustaining and improving ICT infrastructure in schools.

Table 2.4
Summary Results in the Extent of Digital Maturity of the Schools

Indicators	Weighted Mean	Verbal Interpretation
Development of Digital Competencies	3.55	Great Extent Digital Maturity
ICT Culture	3.72	Great Extent Digital Maturity
ICT Infrastructure	3.47	Moderate Extent Digital Maturity
<i>Legend: \bar{x} 3.50 – 4.00 Great Extent Digital Maturity 2.50 – 3.49 Moderate Extent Digital Maturity</i> <i>1.50 – 2.49 Low Extent Digital Maturity 1.00 – 1.49 Very Low Extent Digital Maturity</i>		

Table 2.4 revealed the overall picture of digital maturity in schools across three main dimensions—the development of digital competencies, ICT culture, and ICT infrastructure. Schools have attained a great extent of digital maturity in both digital competencies, obtained 3.55, and ICT culture, obtained 3.72. These results show that educational institutions are effectively including digital tools in their curricula, encouraging digital literacy among teachers and students, and creating a moral and ethical ICT environment. Strong dedication to professional development, creativity, and teamwork - qualities vital for a vibrant digital learning environment.

Conversely, ICT infrastructure scored 3.47, which is a moderate extent of digital maturity. This suggests difficulties schools might be having regarding access, availability, and maintenance of digital resources, including hardware, software, and internet connectivity. Although technical support was judged to be excellent, the infrastructure still lacks the consistency and fit required to support modern educational needs completely. These results highlight the need for strategic planning and the need for school administrators to help raise the general digital maturity of educational institutions.

3. What is the level of digital leadership of the school administrators as to leadership and vision?

Table 3.1
Mean and Interpretation in Level of Digital Leadership of the School Administrators as to Leadership and Vision

Indicators	Weighted Mean	Verbal Interpretation
1. Encourage all stakeholders to collaborate on developing and communicating a vision for technology use.	3.53	Advanced Digital Leadership
2. Maintain an inclusive and unified process for developing, implementing, and monitoring a dynamic, long-term, and systemic technology strategy to fulfil the goal.	3.47	Proficient Digital Leadership
3. Promote a culture of prudent risk-taking and push for policies that encourage continued technological innovation.	3.44	Proficient Digital Leadership
4. Use data to make leadership decisions.	3.67	Advanced Digital Leadership
5. Advocate for based on research, successful technology use.	3.43	Proficient Digital Leadership
Overall Weighted Mean	3.51	Advanced Digital Leadership
<i>Legend: \bar{x} 3.50 – 4.00 Advanced Digital Leadership 2.50 – 3.49 Proficient Digital Leadership</i> <i>1.50 – 2.49 Developing Digital Leadership 1.00 – 1.49 Emerging Digital Leadership</i>		

Table 3.1 shows that the highest mean level of digital leadership of the school administrators as to leadership and vision is indicator 4 about the *use of data to make leadership decisions* obtained with an average of 3.67, followed by indicator 1 about *encouraging all stakeholders to collaborate on developing and communicating a vision for technology use* with 3.53 mean average. Among the indicators, indicator 3 got a weighted mean of 3.27 about *maintaining an inclusive and unified process for developing, implementing, and monitoring a dynamic, long-term, and systemic technology strategy to fulfill the goal* and indicator 5 about *promoting a culture of prudent risk-taking and push for policies that encourage continued technological innovation* with an average of 3.44. Lastly, indicator 5 about *advocating for, based on research, successful technology use* garnered a mean of 3.67. Overall, the level of digital leadership of the school administrators in terms of leadership and vision reveals the obtained mean of 3.51, which is verbally interpreted as an advanced digital maturity level.

These results suggest a generally solid basis for strong leadership in advancing and guiding digital transformation in educational environments. More focus should thus be on supporting innovation, risk-taking, and consistent strategic planning for technology use by school administrators. This finding is affirmed by Suksai et al. (2021), highlights the need for administrators to communicate a clear vision for incorporating digital technologies into educational environments.

Table 3.2
Mean and Interpretation in Level of Digital Leadership of the School Administrators as to Productivity and Professional Practice

Indicators	Weighted Mean	Verbal Interpretation
1. Demonstrate the routine, planned, and effective use of technology.	3.56	Advanced Digital Leadership
2. Use technology to communicate and collaborate with colleagues, staff, parents, students, and the broader community.	3.72	Advanced Digital Leadership
3. Establish and participate in learning communities that encourage, develop, and support teachers and staff in utilizing technology to increase productivity.	3.60	Advanced Digital Leadership
4. Engage in ongoing, job-related professional learning using technology resources.	3.55	Advanced Digital Leadership
5. Remain informed of developing technologies and their potential applications in education and use technology to drive organizational change.	3.59	Advanced Digital Leadership
Overall Weighted Mean	3.60	Advanced Digital Leadership
Legend: \bar{x} — 3.50 – 4.00 Advanced Digital Leadership 2.50 – 3.49 Proficient Digital Leadership 1.50 – 2.49 Developing Digital Leadership 1.00 – 1.49 Emerging Digital Leadership		

Table 3.2 shows that the highest mean level of digital leadership of the school administrators as to productivity and professional practice is indicator 2 about the *use of technology to communicate and collaborate with colleagues, staff, parents, students, and the broader community* obtained with an average of 3.72, followed by indicator 3 about *establish and participate in learning communities that encourage, develop, and support professors and staff in utilizing technology to increase productivity* with 3.60 mean average. Among the indicators, indicator 5 got a weighted mean of 3.59 about *remaining informed of developing technologies and their potential applications in education and using technology to drive organizational change* and indicator 1 about *demonstrating the routine, planned, and effective use of*

technology with an average of 3.44. Lastly, indicator 4 is about *engaging in ongoing, job-related professional learning using technology resources*, garnering a mean of 3.55. Overall, the level of digital leadership of the school administrators in terms of productivity and professional practice reveals the obtained mean of 3.60, which is verbally interpreted as the Advanced Digital Maturity Level.

The results imply that school administrators are positioned as digital leaders, giving professional development, teamwork, and informed technology integration top priority and top importance. By means of their efficient use of digital tools, their practices inspire staff members and shape a school environment that upholds innovation, productivity, and organizational development. Maintaining momentum in educational transformation depends on this strong digital leadership in terms of professionalism and output. This finding is supported by Tanucan et al. (2022) investigated the relationship between school leaders' digital leadership and teachers' work satisfaction in the Philippines. The school administrators displayed adequate digital leadership, which significantly improved teachers' job satisfaction and the effective use of digital tools.

Table 3.3
Mean and Interpretation in Level of Digital Leadership of the School Administrators as to Support, Management and Operations

Indicators		Weighted Mean	Verbal Interpretation
1.	Develop, implement, and monitor rules and procedures to ensure technological compatibility.	3.50	Advanced Digital Leadership
2.	Set up and use integrated technology-based management and operational systems.	3.50	Advanced Digital Leadership
3.	Allocate financial and human resources to guarantee that the technology plan is fully implemented and sustained.	3.56	Advanced Digital Leadership
4.	Combine strategic plans, technology plans, and other improvement plans and policies to better align efforts and leverage resources.	3.53	Advanced Digital Leadership
5.	Put in place mechanisms to drive continual improvement of technology systems and support technology replacement cycles.	3.46	Proficient Digital Leadership
Overall Weighted Mean		3.51	Advanced Digital Leadership
Legend: \bar{x} — 3.50 – 4.00 Advanced Digital Leadership 2.50 – 3.49 Proficient Digital Leadership 1.50 – 2.49 Developing Digital Leadership 1.00 – 1.49 Emerging Digital Leadership			

Table 3.3 shows that the highest mean in the level of digital leadership of the school administrators as to support, management and operations is indicator 3 about the *allocation of financial and human resources to guarantee that the technology plan is fully implemented and sustained* obtained with an average of 3.56, followed by indicator 4 about *combine strategic plans, technology plans, and other improvement plans and policies to better align efforts and leverage resources* with 3.53 mean average. Among the indicators, both indicators 1 and 2 got a weighted mean of 3.50 for *developing, implementing, and monitoring rules and procedures to ensure technological compatibility* and *set up and use integrated technology-based management and operational systems*. Lastly, indicator 5, about *putting in place mechanisms to drive continual improvement of technology systems and support technology replacement cycles*, garnered a mean of 3.46. Overall, the level of digital leadership of the school administrators in terms of support, management, and operations reveals the obtained mean of 3.51, which is verbally interpreted as the Advanced Digital Maturity Level.

These results show that, in terms of resource and system management, school officials are operating at advanced levels. Their capacity to match strategies, distribute resources, and apply efficient systems reveals a great awareness of how to maintain digital transformation. Still, ongoing efforts to improve technology life cycle planning and system upgrades would help to underline operational excellence in digital leadership even more. This finding was affirmed by Dioquino and Paglinawan (2024) regarding the effect of work adaptability and leadership competency on the digital literacy of school administrators. The study found that administrators' adaptability, problem-solving skills, and learning orientation are critical for efficiently managing and promoting digital projects inside school operations. These skills enable administrators to respond to technological changes and facilitate the seamless integration of digital technologies into school management.

Table 3.4
Summary Results in the Level of Digital Leadership of the School Administrators

Indicators	Weighted Mean	Verbal Interpretation
Leadership and Vision	3.51	Advanced Digital Leadership
Productivity and Professional Practice	3.60	Advanced Digital Leadership
Support, Management and Operations	3.51	Advanced Digital Leadership
<i>Legend: \bar{x} 3.50 – 4.00 Advanced Digital Leadership 2.50 – 3.49 Proficient Digital Leadership</i> <i> 1.50 – 2.49 Developing Digital Leadership 1.00 – 1.49 Emerging Digital Leadership</i>		

Table 3.4 presents the whole performance of the digital leadership of school managers in three main spheres: Leadership and Vision, Productivity and Professional Practice, and Support, Management, and Operations. Having weighed above 3.50, all three indicators fall into the Advanced Digital Leadership category. This implies that managers are quite competent and dedicated to helping institutions go through successful digital transformation.

Productivity and Professional Practice got the highest mean of 3.60 among the three areas, suggesting that managers are especially strong in using technology to improve their professional routines, promote cooperation, and participate in constant learning. This corresponds with present patterns in educational leadership, in which institutional development and innovation depend on technological integration in professional practice.

Reflecting great alignment in strategic planning, resource allocation, and the evolution of policies and procedures supporting the digital agenda of schools, both Leadership and Vision and Support, Management, and Operations received equal weighted means of 3.51. Clearly proactive in guiding technological use, involving stakeholders, and making sure systems are ready to support digital projects, administrators also set a direction for technology use.

When one looks back, the results show that school officials are performing rather well in terms of digital leadership. Their outstanding performance in all spheres suggests a strategic and well-rounded approach to guide educational institutions in the digital era. Constant attention to innovation, system enhancements, and stakeholder involvement is advised to preserve and enhance this leadership even more. Navigating the complexity of modern education and creating settings where technology supports both

teaching and learning successfully depends on this degree of digital leadership. This finding is supported by Salazar-Márquez (2021), who underlined that advanced digital leadership is marked by the capacity to set a clear vision for technology use, promote continuous professional development, and establish strong operational systems supporting digital transformation, supports this conclusion.

4. What factors influence the digital maturity of the schools?

Table 4
Mean and Interpretation of Factors Influence the Digital Maturity of the Schools

Indicators	Weighted Mean	Verbal Interpretation
1. The strategic planning and execution of digital in schools are driven by a clear vision for digital transformation and strong leadership.	3.56	Highly Influential
2. Reliable internet connectivity, robust and modern gear, and software are essential for successful digitalization.	3.58	Highly Influential
3. Integrating digital tools into teaching and learning activities requires ongoing professional development and assistance for educators and staff.	3.62	Highly Influential
4. Sufficient financial means are required for the acquisition of technology, system upkeep, and professional growth.	3.42	Moderate Influence
5. Digital maturity is influenced by how much technology is incorporated into the curriculum and teaching methods.	3.52	Highly Influential
6. Support and involvement from the community, parents, and students increase the uptake and efficiency of digital projects.	3.50	Highly Influential
7. Sustaining security and trust requires taking strong steps to protect the digital properties and guarantee data privacy.	3.58	Highly Influential
8. Having access to experts in IT and technical support facilitates the management and troubleshooting of digital tools and infrastructure.	3.49	Moderate Influence
9. An inclusive digital environment is promoted by guaranteeing that all pupils have access to technology and digital resources.	3.47	Moderate Influence
10. The simplicity with which digital initiatives are launched and maintained is influenced by effective change management and adaptation techniques.	3.49	Moderate Influence
Overall Weighted Mean	3.52	Highly Influential
<i>Legend: \bar{x} 3.50 – 4.00 Highly Influential 2.50 – 3.49 Moderate Influence</i> <i>1.50 – 2.49 Low Influence 1.00 – 1.49 Very Low Influence</i>		

Table 4 shows that the highest mean in factors influence the digital maturity of the schools is indicator 3 about the *integrating digital tools into teaching and learning activities requires ongoing professional development and assistance for educators and staff* obtained with an average of 3.62, followed by indicator 2 and 7 about the *reliable internet connectivity, robust and modern gear, and software are essential for successful digitalization* and *sustaining security and trust requires taking strong steps to protect*

the digital properties and guarantee data privacy both got the weighted mean of 3.58. Indicator 1 about *the strategic planning and execution of digital in schools are driven by a clear vision for digital transformation, and strong leadership* obtained a 3.56 weighted mean; indicator 5 about *digital maturity is influenced by how much technology is incorporated into the curriculum and teaching methods* with 3.52 and indicator 6 about *support and involvement from the community, parents, and students increase the uptake and efficiency of digital projects* got weighted mean of 3.50. Among the indicators, both indicators 8 and 10 about *having access to experts in IT and technical support facilitate the management and troubleshooting of digital tools and infrastructure and the simplicity with which digital initiatives are launched and maintained is influenced by effective change management and adaptation techniques* obtained 3.49 weighted mean.

Additionally, indicator 7, about *an inclusive digital environment is promoted by guaranteeing that all pupils have access to technology and digital resources*, got a weighted mean of 3.47 and lastly, indicator 8, about *sufficient financial means are required for the acquisition of technology, system upkeep, and professional growth* obtained the least weighted mean of 3.42. Overall, the level of factors influencing the digital maturity of the schools reveals the obtained mean of 3.52, verbally interpreted as a Highly Influential Level. This finding is supported by Dioquino and Paglinawan (2024), who states that educators' attitudes toward technology, particularly their readiness to innovate and adapt, have a substantial impact on digital integration. A proactive technological mentality promotes digital competence and the successful use of digital resources in the classroom.

5. What is the degree of challenges encountered by the school administrators in terms of digitalization?

Table 5 shows that the highest mean in the degree of challenges encountered by the school administrators in terms of digitalization is indicator 4 about the continuous maintenance is necessary to keep technology current and functioning properly obtained with an average of 3.42, followed by indicator 5, about the school administrators and teachers might require in-depth training and this kind of training can be expensive and time-consuming to provide got the weighted mean of 3.37. Both indicators 6 and 7 got a weighted mean of 3.33 about students may not all have equal access to technology, which could result in different learning possibilities and redesigning current lesson plans and teaching techniques is frequently necessary to include digital into the competencies. Furthermore, indicator 9 got a weighted mean of 3.29 about the community, parents, and students are just a few of the stakeholders that must be involved and supportive for digitalization to be effective and indicator 1 about the problem of allocating funding for professional development and training on new technology, particularly in underfunded educational institutions obtained 3.28. Among the indicators, indicator 3, about may experience connectivity problems, gathered 3.26 and indicator 8, about difficulty in assessing how well digital tools and techniques work to achieve educational objectives, got a weighted mean of 3.24. Additionally, indicator 2, about the newest software or digital tools not working on the outdated hardware found in schools, got a weighted mean of 3.22, and lastly, indicator 10, about some school administrators, teachers, and other non-teaching personnel being unwilling to use new technologies because they are apprehensive about the unknown or because they are comfortable using the current ones obtained the least weighted mean of 2.97. Overall, the degree of challenges encountered by the school administrators in terms of digitalization reveals the obtained mean of 3.27 verbally interpreted as Moderately Challenging.

This result implies that even if training and technical infrastructure are the main concerns, personal resistance to change also has a big impact. Overall, the results show that even if school managers are adjusting to digitalization, there are ongoing issues that need to be resolved with systematic support, professional growth, and the involvement of stakeholders. This finding is supported by Zhang (2024), who states that a lack of appropriate professional development opportunities can leave teachers unprepared to properly incorporate digital resources into their teaching practices. Managing and preserving massive volumes of educational data presents considerable issues, including compliance with privacy requirements.

Table 5
Mean and Interpretation of the Degree of Challenges Encountered by the School Administrators
in terms of Digitalization

Indicators	Weighted Mean	Verbal Interpretation
1. Problem to allocate funding for professional development and training on new technology, particularly in underfunded educational institutions.	3.28	Moderately Challenging
2. The newest software or digital tools could not work on the outdated hardware found in schools.	3.22	Moderately Challenging
3. May experience connectivity problems.	3.26	Moderately Challenging
4. Continuous maintenance is necessary to keep technology current and functioning properly.	3.42	Moderately Challenging
5. School administrators and teachers might require in-depth training. This kind of training can be expensive and time-consuming to provide.	3.37	Moderately Challenging
6. Students may not all have equal access to technology, which could result in different learning possibilities.	3.33	Moderately Challenging
7. Redesigning current lesson plans and teaching techniques is frequently necessary to include digital into the competencies.	3.33	Moderately Challenging
8. Difficult to assess how well digital tools and techniques work to achieve educational objectives.	3.24	Moderately Challenging
9. The community, parents, and students are just a few of the stakeholders that must be involved and supportive for digitalization to be effective.	3.29	Moderately Challenging
10. Some school administrator, teachers, and other non-teaching personnel could be unwilling to use new technologies because they are apprehensive about the unknown or because they are comfortable using the current ones.	2.97	Moderately Challenging
Overall Weighted Mean	3.27	Moderately Challenging
<i>Legend: \bar{x}— 3.50 – 4.00 Highly Challenging 2.50 – 3.49 Moderately Challenging</i> <i>1.50 – 2.49 Low Challenging 1.00 – 1.49 Very Low Challenging</i>		

6. Is there a significant relationship between the school administrators' demographic profile and the level of school administrators' digital leadership?

The sixth question sought to investigate if there is any significant relationship between the school administrators' demographic profile and the level of school administrators' digital leadership. Table 6 presents the relationship between the profile of school administrators in terms of age, sex, highest educational attainment and technological leadership seminars and training attended. It can be noted that age is not significantly related to the level of school administrators' digital leadership. It is ascertained by the computed Pearson's coefficient value of 0.059 with a negligible correlation and the p-value of 0.463, which is greater than the 0.05 level of significance. The table further shows that there is no relationship between the demographic profile of school administrators in terms of sex and the level of school administrators' digital leadership. This is supported by the chi-squared value of 0.822 with a high positive correlation and the p-value of 0.663, which is greater than the 0.05 level of significance.

Moreover, the profile of school administrators in terms of highest educational attainment and technological leadership seminars and training attended are not also determinants of the level of school administrators' digital leadership. The computer Spearman's rank correlation coefficient value for the highest educational attainment is 0.040 with a positive negligible correlation and a p-value of 0.623, which is greater than the 0.05 level of significance. For the technological leadership seminar and training attended, the computer Spearman's rank correlation coefficient value is 0.071 with a positive negligible correlation and a p-value of 0.380, which is greater than the 0.05 level of significance.

The overall findings in the relationship between the school administrators' demographic profile in terms of age, sex, highest educational attainment and technological leadership seminar and training attended can be noted that the said variables are not significantly related to the level of school administrators' digital leadership. Thus, the null hypothesis that there is no significant relationship between the two variables failed to reject.

These results imply that other elements, such as personal motivation, organizational culture, or access to resources, may rather affect digital leadership among school managers than demographic traits. This realization suggests that independent of background or experience, leadership development in digital environments should be inclusive and globally available. This finding is supported by Tanucan et al. (2023), highlights the need for comprehensive research on digital leadership in the Philippine educational system and recommends that educational institutions and the government encourage all school leaders, irrespective of their sociodemographic backgrounds, to acquire digital leadership skills.

Table 6
Result of the Significant Relationship of the School Administrators' Demographic Profile and the Level of School Administrators' Digital Leadership

Demographic Profile	r-value	Strength of Correlation	p-value	Interpretation	Decision
Age	0.059	Negligible	0.463	Not Significant	Failed to Reject H_0
Sex	0.822	High Positive	0.663	Not Significant	Failed to Reject H_0
Highest Educational Attainment	0.040	Negligible	0.623	Not Significant	Failed to Reject H_0
Technological Leadership Seminar and Trainings Attended	0.071	Negligible	0.380	Not Significant	Failed to Reject H_0

Legend: α = level of significance = 0.05

7. Is there a significant relationship between the school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization?

The seventh question sought to investigate if there is a significant relationship between the school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization. Table 7 presents the relationship between the profile of school administrators in terms of age, sex, highest educational attainment and technological leadership seminars and training attended.

Table 7
Result of the Significant Relationship of the School Administrators' Demographic Profile and the Degree of Challenges Encountered by the School Administrators in terms of Digitalization

Demographic Profile	r-value	Strength of Correlation	p-value	Interpretation	Decision
Age	0.080	Negligible	0.318	Not Significant	Failed to Reject H_0
Sex	0.395	Low Positive	0.821	Not Significant	Failed to Reject H_0
Highest Educational Attainment	-0.070	Negligible	0.388	Not Significant	Failed to Reject H_0
Technological Leadership Seminar and Trainings Attended	-0.036	Negligible	0.659	Not Significant	Failed to Reject H_0

Legend: α = level of significance = 0.05

The table shows that age is not significantly related to the degree of challenges encountered by school administrators in terms of digitalization. It is ascertained by the computed Pearson's correlation coefficient value of 0.080, which is a negligible correlation, and the p-value of 0.318 is greater than the 0.05 level of significance. The table further shows that there is no relationship between the demographic profile of school administrators in terms of sex and the degree of challenges encountered by the school administrators in terms of digitalization. This is supported by the chi-squared value of 0.395, which is a low positive correlation, and the p-value of 0.821, which is greater than the 0.05 level of significance.

Moreover, the profile of school administrators in terms of highest educational attainment and technological leadership seminars and training attended are also determinants of the degree of challenges encountered by the school administrators in terms of digitalization. The computer Spearman's rank correlation coefficient value for highest education attainment is -0.070, which is a negligible correlation, and the p-value of 0.388 is greater than the 0.05 level of significance. For technological leadership seminars and training attended, the computer Spearman's rank correlation coefficient value of -0.036 is a negative negligible correlation, and the p-value of 0.659 is greater than the 0.05 level of significance.

The overall findings in the relationship between the school administrators' demographic profile in terms of age, sex, highest educational attainment and technological leadership seminar and training attended can be noted that the said variables are not significantly related to the degree of challenges encountered by the school administrators in terms of digitalization. Thus, the null hypothesis that there is no significant relationship between the two variables failed to reject.

These results suggest that the difficulties related to digitalization are constant regardless of the degree of maturity of a school or the leadership capacity of its managers. This suggests that rather than from individual or institutional readiness alone, such difficulties could result from more general systemic or outside elements. The close connection between digital maturity and leadership emphasizes the need to fund the digital transformation of educational systems to empower managers in their capacity as leaders. This finding is supported by Van De Werfhorst et al. (2022), who determined the relationship between a school's sociodemographic composition and its digital preparedness. The findings found that, in most countries, school administrations in schools with a high proportion of teachers were neither more nor less capable of supporting their learners using ICT than school administrators in schools with fewer teachers from such backgrounds. This shows that a school's sociodemographic composition has little impact on its digital preparedness.

8. Is there a significant relationship between the extent of digital maturity of the schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization?

The eighth question sought to investigate if there is a significant relationship between the extent of digital maturity of the schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization. Table 8.1 presents the results of the three variables, their r-value, the strength of correlation, p-value, interpretation, and the decision based on the hypotheses mentioned in the first chapter of this study.

Table 8.1
Results of the Significant Relationship of the Extent of Maturity of Schools, the Level of Digital Leadership of the School Administrators, and the Degree of Challenges Encountered by the School Administrators in terms of Digitalization

Variables	r-value	Strength of Correlation	p-value	Interpretation	Decision
Digital Maturity and Digital Leadership	0.621	Moderate Positive	0.000	Significant	Reject H_0
Digital Maturity and Challenges	0.028	Negligible	0.730	Not Significant	Failed to Reject H_0
Digital Leadership and Challenges	0.036	Negligible	0.652	Not Significant	Failed to Reject H_0

Legend: α = level of significance = 0.05

As shown in Table 8.1, the relationship between the extent of maturity of schools and the level of digital leadership of the school administrators. It can be noted that the said variables are significantly related. It is ascertained by the computed Spearman's rank correlation coefficient value of 0.621 with moderate positive correlation, and the p-value of 0.000 is less than the 0.05 level of significance. The results imply that the null hypothesis between the two variables failed to be rejected. The table further shows that there is no significant relationship between the level of digital leadership of the school administrators and the degree of challenges encountered by the school administrators in terms of digitalization. This is supported by the computed value of 0.028, which is a positive negligible correlation, and the p-value of 0.730 is greater than the 0.05 level of significance.

Moreover, the level of digital leadership of the school administrators is not also determinant in the degree of challenges encountered by the school administrators in terms of digitalization. The computer Spearman's rank correlation coefficient value for the level of digital leadership of the school administrators is 0.036, which is a positive negligible correlation, and the p-value is 0.652, which is greater than the 0.05 level of significance. The results imply that the null hypotheses between the variables failed to be rejected.

These results suggest that the difficulties connected with digitalization endure and are not much influenced by how advanced a school is in terms of digital readiness or the degree of competency of the leadership. This analysis implies that structural and systemic factors shape the problems faced during digital transitions; thus, addressing these challenges could call for more general policy support, funding, and community involvement rather than only enhancing digital leadership or infrastructure. This finding is supported by Antia and Dioso (2023), who revealed that school administrators who are more digitally literate perform better as leaders. This emphasizes the necessity of continuous professional development in technology for school leaders, implying that improving digital competencies can lead to better school management and educational outcomes.

Table 8.2
Result of the Significant Relationship of the Extent of Maturity of Schools and the Level of Digital Leadership of the School Administrators

IV	DV	r-value	Coefficient of Determination	Unstandardized Beta	t-value	p-value	Interpretation	Decision
DL	DM	0.632	40%	0.626	10.126	0.000	Significant	Reject H_0

Legend: α = level of significance = 0.05

DL = digital leadership, DM = digital maturity

As shown in Table 8.2, the relationship between the extent of maturity of schools and the level of digital leadership of the school administrators. It can be noted that the said variables are significantly related. It is ascertained by the computed Regression Analysis value of 0.632 with a 40% coefficient of determination, and the p-value of 0.000 is less than the 0.05 level of significance. The results imply that the null hypothesis between the two variables is rejected. It emphasizes the critical part a well-established digital environment plays in fostering successful digital-age leadership. Thus, not only should schools be modernized, but leaders who can lead their institutions through technological change should also be developed and empowered by investing in digital infrastructure, systems, and practices. This finding is affirmed by Antia and Dioso (2023), revealed that digital leadership among school administrators is pivotal to developing a school's digital maturity. School leaders may effectively negotiate the difficulties of digital transformation by establishing capabilities in digital vision, culture, professional development, and safety, resulting in environments that are adaptive, secure, and receptive to technological integration.

9. How did you apply the best practices and issues you encountered to strengthen the school's digital maturity?

As exposed in Table 9.1, there were two thematic experiences derived from the open-ended question interview about the experiences of school administrators in best digital practices in schools. Under the first theme, several administrators underlined the use of ICT integration in teaching, stressing its function in improving classroom instruction with digital tools. Participant 1, for instance, said how ICT supports classroom learning, while Participant 4 noted that technology integration in instructional delivery promotes interactive and group learning. Participant 8 also highlighted the subtheme of Digital Pedagogy Development by stressing the need to create digital teaching strategies that cater to the needs of learners from the twenty-first century.

The second theme centers on how ICT helps schools to be administratively and operationally efficient. Among the subthemes, Monitoring and Evaluation of Reports, where Participant 2 underlined the need to track performance and results using ICT tools, regarding school data management, participant 3 discussed how systems guarantee the efficient running of schools. Participant Five also mentioned documentation of activities, specifically referencing publishing materials as a means of documenting school events.

Considering the increasing reliance on cloud-based tools, several participants also spoke about the use of Google Apps such as Google Drive and PPT for teaching and compiling data (Participant 6). Participant 7 also stressed connectivity to DepEd systems, including LIS, EBEIS, and E-TALA, demonstrating how cohesive platforms simplify classroom operations. Participant 9 spoke on Digital Portfolio Management, specifically the use of ePortfolio systems for several DepEd needs. Finally, Participant 10

underlined the need for School Page and Link Management, more especially in maintaining current school websites and data systems.

When one considers these results, it is evident that driving educational transformation depends on digital leadership among school managers. Their experiences not only point out best practices but also act as a guide for other organizations trying to update their procedures. However, only with continuous support, professional growth, and infrastructure investments will these digital projects fully realize their promise. In the end, including ICT in both teaching and school administration marks a paradigm change in education that empowers teachers, improves student learning, and promotes an always innovative culture. The two themes were aligned with the study of Chongcharoen (2024), which revealed how successful schools use digital technologies to improve learner quality. It examines the responsibility of school administrators in establishing digital visions, fostering collaborative cultures, and providing ongoing professional development to effectively integrate technology into both teaching and administrative procedures.

Table 9.1
Thematic Experiences of School Administrators in Best Digital Practices in Schools

Theme	Code	Description / Indicators
Utilization of ICT in Instruction	ICT Integration in Teaching	<i>Participant 1</i> - The use of ICT for classroom instructions.
	Technology-Enriched Learning	<i>Participant 4</i> - Technology Integration in Instructional Delivery provides interactive content and facilitates collaborative learning activities.
	Digital Pedagogy Development	<i>Participant 8</i> - Develop and implement digital teaching strategies to teachers to develop the digital information to the 21st century learners.
Utilization of ICT in School Operation and Management	Monitoring and Evaluation of Reports	<i>Participant 2</i> - Monitoring and evaluation of reports.
	School Data Management	<i>Participant 3</i> - Manage school data and information to ensure efficient and effective school operations.
	Documentation of Activities	<i>Participant 5</i> - Posting of pub mats are some of the best practices related to the school activities.
	Use of Google Applications	<i>Participant 6</i> - Using Google link to harvest data, Using PPT in teaching, Google Drive for the compilation of School Data.
	Connectivity to DepEd Systems	<i>Participant 7</i> - Connected in LIS, EBEIS, NSBI, E-TALA & other School Profile.
	Digital Portfolio Management	<i>Participant 9</i> - The use of ePortfolio for LIS, EBEIS, E-IPCRF, E-TALA, and LR portal.
	School Page and Link Management	<i>Participant 10</i> - Updating the LIS, EBEIS and other DepEd and updating school fb page and link for data.

Table 9.2
Thematic Experiences of School Administrators in Digital Issues in Schools

Theme	Code	Description / Indicators
Lack of ICT Training for Teachers	Insufficient ICT Skills	<i>Participant 1</i> - There are 2 elementary teachers who are seniors and do not know how to operate computer.
	Digital Skill Gaps	<i>Participant 5</i> - Having miscommunication and sometimes having delayed reports due to some teachers who do not have the skills to use the technology.
Poor / Lack of Internet Connectivity	No Internet Access	<i>Participant 2</i> - No Internet connectivity.
	Home Connectivity Issues	<i>Participant 7</i> - Not all learners can access on internet because there is no internet access on their place.
	Limited Classroom Connectivity	<i>Participant 8</i> - Internet connectivity, not all classrooms have access to internet.
Lack of ICT Equipment	Insufficient Number of Devices	<i>Participant 3</i> - Digital issues? We only have 5 laptops in school; that's not enough for 33 teachers and 928 pupils.
	Non-functional ICT Infrastructure	<i>Participant 4</i> - As of now our computer laboratory is not functional. Teachers are using their own laptops and other gadgets to provide ICT lessons and enable our learners to learn the updates on the usage of ICT.
	Limited Access for Students	<i>Participant 6</i> - Limited number of available ICT equipment so that students can do hands-on activities on one-on-one basis.
	Lack of Teaching Gadgets	<i>Participant 9</i> - Lack of gadgets for the pupils to use in their lessons especially in their lesson involving digital access.
	Equipment Scarcity in Classrooms	<i>Participant 10</i> - Insufficient ICT equipment to be used by the teachers and learners during classes.

Table 9.2 shows that there were three thematic experiences derived from the open-ended question interview about the experiences of school administrators with digital issues in schools. Three main issues—lack of ICT training for teachers, poor or lack of internet connectivity, and lack of ICT equipment—are revealed by the thematic study of school managers' experiences with digital issues in schools.

First, one of the most important problems turned out to be teachers lacking ICT knowledge. Many teachers, especially those who are older, find it difficult to use digital tools and platforms on their most basic level. Participant 1 mentioned that some senior teachers lack computer knowledge; Participant 5 pointed out that this lack of knowledge usually leads to miscommunication and delays. This suggests a great demand for professional development initiatives targeted at digital literacy to guarantee that every teacher is ready to satisfy the expectations of contemporary education.

Second, efficient teaching and learning are much hampered by inadequate or nonexistent internet access. While Participant 7 underlined that many students cannot access the Internet at home, so widening the digital divide, Participant 2 noted the total lack of Internet in some regions. Participant 8 pointed out that not all classrooms are connected, so the possibility of including digital materials in courses, even in universities, is restricted. These problems draw attention to the need to enhance digital infrastructure at home and in educational environments to guarantee fair access to learning tools. Finally, the lack of ICT tools is a recurrent topic in different educational environments. Participant 3 says that the scarcity is evident, given just a small number of laptops for hundreds of students and dozens of teachers. Participants also mentioned the general lack of devices for both teachers and students (Participants 9 and 10), inadequate tools for hands-on activities (Participant 6), and the non-functionality of computer laboratories (Participant 4). These realizations highlight how urgently digital tools and resources must be invested to enable instruction and learning.

The three themes were supported by the study of Chongcharoen (2024), which showed that school administrators encounter considerable hurdles when introducing digital practices in schools due to insufficient ICT training for teachers, poor internet access, and a shortage of ICT equipment. Many teachers struggle to integrate technology into their teaching because they lack enough training, limiting their capacity to successfully use digital technologies in the classroom. Furthermore, bad internet connectivity remains an ongoing concern, prohibiting seamless access to online educational resources and impeding communication between teachers and students. The absence of ICT equipment, such as computers and high-quality digital gadgets, exacerbates the problem, with reports indicating that many public schools receive low-spec computers that are inefficient for pedagogical purposes.

Table 9.3
Thematic Experiences of School Administrators in the Application of Best Practices and Issues to Strengthen the School's Digital Maturity

Theme	Code	Description / Indicators
ICT in Teaching and Learning Process	Encouraging ICT Use	<i>Participant 1</i> - Consistency in encouraging teachers in using various applications that will help them in adapting the new technologies for teaching and learning.
	Use of Educational Resources	<i>Participant 7</i> - Teachers used educational website that can be used in teaching and learning.
	Independent Learning through ICT	<i>Participant 8</i> - Using their own laptops and self-study on the new technologies.
Implementation of ICT in Institutional Management like School Learning Action Cell (SLAC)	SLAC-driven ICT Integration	<i>Participant 2</i> - Through school learning action cell that will provide and help teachers, learners and parents adapt the new trends to strengthen school's digital maturity.
	Digital Literacy Through SLAC	<i>Participant 4</i> - We include digital literacy in our SLAC.
	ICT Knowledge Inclusion in SLAC	<i>Participant 6</i> - Including teachers' development and knowledge when it comes to ICT by allowing them to attend SLAC.
	ICT Integration in SLAC Topics	<i>Participant 9</i> - Utilization of ICT is frequent topics in SLAC session.
Support in Accessible Internet Connectivity	Classroom Internet Accessibility	<i>Participant 3</i> - By providing router to have an internet access in every classroom. Every teacher has a laptop issued by the SDO Laguna to be used in their teaching.
	Infrastructure &	<i>Participant 5</i> - Established clear data privacy protocols and

Data Privacy	enhanced our infrastructure to support reliable internet access.
Modem Use for	<i>Participant 10</i> - The use internet modem helps teachers and
Digital Maturity	administrator strengthen the school digital maturity.

The ninth question sought to find out the thematic experiences of school administrators in the application of best practices and issues to strengthen the school's digital maturity. Table 9.3 presents the three thematic experiences for teaching, management and connectivity support. Three main themes—ICT in the teaching and learning process, implementation of ICT in institutional management like School Learning Action Cell (SLAC), and support in accessible internet connectivity—are revealed by the thematic study of school managers' experiences in the application of best practices and issues to strengthen digital maturity in schools.

ICT in the teaching and learning process is the first theme, and it stresses the proactive part teachers should play in implementing digital tools. Teachers are constantly urged, according to administrators, to investigate and include many digital tools in their curricula (Participant 1). Teachers are also actively using instructional websites (Participant 7) and participating in self-directed learning with their devices (Participant 8), so highlighting a growing comfort and independence in using technology to improve instruction.

The second theme emphasizes how ICT is applied via SLAC, an institutional tool for supporting ongoing professional growth. SLAC has evolved into a useful forum for sharing information on ICT usage in educational settings, including best practices. It brings fresh digital trends and strategies, for instance (Participant 2), supports digital literacy (Participant 4), and improves teachers' ICT competency (Participant 6). Furthermore, the frequent inclusion of ICT subjects in SLAC sessions (Participant 9) guarantees that technology integration is a continuous and changing component of the educational process.

Lastly, one of the most important enablers of digital maturity is the support of easily available internet connectivity. Administrators have made sure that every classroom has an internet connection and that teachers have laptops (Participant 3). Schools have also set data privacy rules and upgraded their infrastructure to provide consistent internet connections (Participant 5). Furthermore, important in helping administrators and teachers to increase digital maturity is the use of internet modems (Participant 10).

When one considers these issues, digital transformation in educational environments is about developing a culture that supports and sustains its significant use rather than only about acquiring technology. Effective ICT integration is based on the interactions among infrastructure, professional learning, and leadership. The experience of the administrators reveals that schools can boldly approach digital maturity when teachers are empowered, when systems like SLAC are used deliberately, and when connectivity is given top priority. For other schools trying to progress their digital path, this thematic study provides both a road map and a source of inspiration. The three themes were aligned with the study of Macasawang (2020), which states that school administrators signify the best practices in ICT to advance their school's digital maturity. In the teaching and learning process, effective technology management by administrators has been connected to better instructional practices and student outcomes. Moreover, incorporating ICT into institutional administration, such as the establishment of School Learning Action Cells (SLACs), promotes collaborative professional development among educators, hence improving teaching methodologies and student learning outcomes. A Mindanao State University study found that, while ICT facilities were judged rather functional, issues such as the need for maintenance, upgrades, and encouragement to use ICT tools were recognized, suggesting possibilities for development in school management.

Particularly in areas of digital competencies and ICT culture, the convergent analysis reveals that school administrators show great digital leadership and greatly help their schools reach their digital maturity.

Regardless of demographic factors, including age, gender, or educational background, both quantitative and qualitative results show that good leadership is essential in advancing digital initiatives. However, a recurring contrast shows itself in the form of ongoing challenges, especially poor ICT infrastructure, limited connectivity, and lack of teacher training—which, although rated somewhat difficult, are powerfully depicted in the qualitative data as the main obstacles. Although it also indicates an urgent need for institutional support, this discrepancy emphasizes the administrators' resilience and creativity in optimizing a few resources. The results confirm the suggested WIFI: Contextualized Technology Empowerment Model, which seeks to solve the digitalization issues holistically and enhance the capacity of school administrators.

10. What model may be proposed to help the school administrators, and the institution signify the digital leadership and maturity level of the school?

Based on the research results, it is suggested that school administrators and school digitalization be strengthened using the WIFI: Contextualized Technology Empowerment Model.

The **WIFI: Contextualized Technology Empowerment Model** is meant to enable school managers to address the issues of digitalization in their respective institutions, promoting a culture of development and exploration of fresh opportunities in a digital environment. It is a strategic framework meant to improve schools' digital maturity by means of disciplined technology and leadership application. The following lists the elements:

W – *Wielding Digital Leadership*

The first element underlines the need for school managers and teachers to assume leadership in the digital transformation. It emphasizes the need for extensive ICT instruction for educators and administrators of schools. This part includes training courses, including the School Learning Action Cell (SLAC) and different seminars meant to enhance the digital skills of school leaders. From school-based seminars to international-level digital literacy courses, administrators should be constantly exposed to chances for ongoing education to keep current on new trends and increase the digital maturity of the institution.

I – *Investing in Capacity Building*

This part emphasizes using ICT for classroom and school operations integration. The development and application of digital teaching strategies that equip teachers to improve the learning environment are urged by school administrators. It also entails using ICT to manage school data, facilitating efficient monitoring and evaluation systems and guaranteeing seamless operations. This strategy aims to increase the ability of the teaching staff and leadership of the institution to efficiently include ICT in their regular duties.

F – *Facilitating Digital Transformation*

Making sure schools have the required ICT infrastructure and tools forms the third pillar of the model. It underlines the need for consistent internet connection, technical assistance, and ICT resource maintenance. School leaders must make sure that digital tools are working and that explicit data privacy policies are in place. This element also promotes the use of internet modems and other tools to maintain stable and dependable connectivity, which is essential for enhancing the institution's whole digital environment.

I – *Improving Access and Infrastructure*

The last element is strong ICT implementation all around the institution to develop digital leadership and a technologically advanced institution. This entails applying best practices in digital leadership, defining goals, raising output, strengthening professional standards, and ensuring solid operations and management. Applying indicators of digital leadership—such as visionary leadership, support of professional practice, and effective management—which can help the school become a digitally mature institution—guides the school

toward this direction. To help the school's digital environment grow even more, it also underlines the development of digital competencies, promotes a strong ICT culture, and enhances the ICT infrastructure.

In the context of the Division of Laguna, the WIFI model is meant to direct school administrators and institutions toward digital leadership and maturity. The approach guarantees that teachers and managers are ready to guide the digital transformation in their institutions, promoting their whole development. The framework emphasizes how training, capacity building, infrastructure development, and leadership help the school's digital path be advanced. In the face of technological obstacles, it clarifies for school leaders how to foster a strong ICT culture, keep efficient digital operations, and propel long-term sustainability.

The figure represents "**WIFI: Contextualized Technology Empowerment Model**" as the basis for a proposed guide to help the school administrators and the institution signify the digital leadership and the maturity level of the school in the Division of Laguna.

Figure 3

The WIFI Model: Contextualized Technology Empowerment Model



4. Findings, Conclusions and Recommendations

4.1. Summary of Findings

The findings showed the statistical results of the treatment of data. For the specific research questions, the findings are as follows:

1. The respondent's demographic profile revealed that in terms of age, the most age range of school administrators under 52-54 years old belonging to middle adulthood as 28 school administrators or 17.95%, while the least old among them all is 64-66 years old with 1 school administrator or 0.64%. Among school administrators, males have been dominant with 116 or 74.36%, while the female counterpart of 40 or 25.64%. The educational attainment of school administrators revealed that they dominantly pursued master's units earned and attended national training/seminars related to digital leadership.
2. The overall findings in the extent of digital maturity of the schools in terms of development of digital competencies obtained 3.55 or "great extent digital maturity", ICT culture with 3.72 or "great extent digital maturity," and ICT infrastructure got 3.47 or "moderate extent digital maturity".
3. The overall findings in the level of digital leadership of the school administrators as leadership and vision got 3.51 or "advanced digital leadership", productivity and professional practice with 3.60 or "advanced digital leadership," and support, management and operations got 3.51 or "advanced digital leadership".
4. The factors include the digital maturity of schools, which obtained 3.52 of the overall weighted mean with verbal interpretation of highly influential.
5. The degree of challenges encountered by the school administrators in terms of digitalization obtained 3.27 of the overall weighted mean, with the verbal interpretation being moderately challenging.
6. The findings showed that there is no relationship between the school administrators' demographic profile and the level of school administrators' digital leadership, which determined that the computed p-value is greater than the 0.05 level of significance with a negligible correlation.
7. The findings revealed that there is no relationship between the school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization, determined that the computed p-value is greater than the 0.05 level of significance with positive and negative negligible correlation.
8. The overall findings in the significant relationship between the extent of maturity of schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization revealed that only the school digital maturity and digital leadership of school administrators have a significant relationship with moderate positive correlation.
9. The school administrators derived thematic experiences based on the best practices and issues encountered to strengthen the school's digital maturity. Utilization of ICT in instruction and school operation and management is themed as best practices for school administrators. It also revealed that the issues were lack of ICT training for teachers, poor / lack of internet connectivity and lack of ICT

equipment. Lastly, the application of best practices and issues to strengthen the school's digital maturity were ICT in the teaching and learning process, implementation of ICT in institutional management like school learning action cell (SLAC) and support in accessible internet connectivity.

10. It is proposed that school administrators and school digitalization be strengthened using the WIFI: Contextualized Technology Empowerment Model. This model promotes the strengthening of school administrators to survive the challenges and strengthen school digitalization so that they will continue to explore more opportunities in digital setup.

4.2. Conclusions

In the light of the above findings, the following conclusions were drawn:

1. Most school administrators in the Division of Laguna were male in their middle childhood, and among the school administrators, they dominantly pursued master's units earned and attended national training/seminars related to digital leadership.
2. The extent of digital maturity of the schools in terms of the development of digital competencies, ICT culture, and ICT infrastructure was "great extent digital maturity". This means that the schools in the Division of Laguna were accelerated to the essentials of teaching, ethical considerations, and computer resources.
3. The level of digital leadership of the school administrators as leadership and vision, productivity and professional practice and support, management and operations was "advanced digital leadership". This means that the school administrations have accelerated the growth or progress of technological leadership.
4. The factors include the digital maturity of schools, which was "highly influential". It means that digitalization has a significant role in the progress of school instruction and management.
5. That the degree of challenges encountered by the school administrators in terms of digitalization was "moderately challenging". It means that the school administrators faced a lot of challenges in managing school operations.
6. That the school administrators' demographic profile and the level of school administrators' digital leadership has no significant relationship. Thus, null hypothesis is accepted.
7. The school administrators' demographic profile and the degree of challenges encountered by the school administrators in terms of digitalization have no significant relationship. Thus, the null hypothesis is accepted.
8. The extent of maturity of schools, the level of digital leadership of the school administrators, and the degree of challenges encountered by the school administrators in terms of digitalization revealed that only the school digital maturity and digital leadership of school administrators have a significant relationship. Thus, the null hypothesis failed to be rejected.

9. The school administrators derived thematic experiences based on the best practices and issues encountered to strengthen the school's digital maturity. Utilization of ICT in instruction and school operation and management is themed as best practices for school administrators. It also revealed that the issues were lack of ICT training for teachers, poor / lack of internet connectivity and lack of ICT equipment. Lastly, the application of best practices and issues to strengthen the school's digital maturity were ICT in the teaching and learning process, implementation of ICT in institutional management like school learning action cell (SLAC) and support in accessible internet connectivity.
10. The researcher proposed strengthening school administrators and school digitalization using the WIFI: Contextualized Technology Empowerment Model. This model promotes the strengthening of school administrators to survive the challenges and strengthen school digitalization so that they will continue to explore more opportunities in digital setup. Hence, the empowerment of this model depends on school administrators' implementation of digital in their institutions.

4.3. Recommendations

Based on the foregoing findings and conclusions, the following recommendations are hereby endorsed:

1. The government might help school administrators and institutions more, especially in terms of access to modern ICT equipment, consistent internet connectivity, and frequent training possibilities. This will enable educational institutions to remain in line with the fast developments in technology and enhance the whole digital learning environment.
2. Teachers and school administrators of schools should be urged to actively participate in several seminars, workshops, and training courses aimed at digital learning and technologically driven school management. Frequent attendance of these professional development events will help them stay current with modern trends in information and communication technology and improve their capacity to manage and teach in a digital environment.
3. Comprehensive ICT literacy and digital leadership modules should be included in both pre-service and in-service training courses by means of teacher education institutions and professional development providers. This guarantees that, in digital learning environments, both future and present teachers are suited to negotiate and guide.
4. Schools are urged to create digital strategic plans that fit national and regional education objectives and ICT policies. To direct the digital transformation of the institution, these policies should specify objectives, deadlines, resource demands, training priorities, and evaluation systems.
5. Establishing alliances between nonprofit organizations and commercial ICT companies can offer extra resources, mentoring chances, and training courses. Such joint projects can hasten the integration of technology into educational environments and introduce creative ideas for administration and learning.
6. Schools' ought to put mechanisms in place for the consistent assessment of their digital policies. This cover monitoring the efficiency of digital tools applied in management and education as well as compiling comments from relevant parties to enhance technology integration.

7. School officials can create a community of practice or support network to exchange best practices, difficulties, and digital leadership solutions. This peer-based learning style can inspire creativity, morale, and group problem-solving.
8. Adopting the WIFI: Contextualized Technology Empowerment Model is suggested as a means of enhancing the digital leadership of school administrators. This approach enables leaders to meet digital challenges, so fostering resilience and creativity in school digitalization. The framework should be implemented gradually, with a long-term vision to guarantee sustainability and efficacy in supporting digital practices all through the spectrum of school operations and management.
9. Future research aiming at further investigation of school digital maturity can find a basis in this work. Prospective researchers might look at other factors, including digital resilience, teacher preparedness, student digital engagement, and the impact of community support. One should especially pay close attention to how school officials promote digital leadership.

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