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Leadership Self-Efficacy, Technology Proficiency and Instructional Supervision of DepEd School Heads: Basis for Management Development Plan

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Abstract

Aim: The study determined the relationship among leadership self-efficacy, technology proficiency, and instructional supervision of DepEd school heads as basis for management development plan.
Methodology: This utilized the quantitative-descriptive method of research. Data were obtained from standardized survey questionnaires adapted from Bobbio and Manganelli (2009), Duncan (2011) and Pettiegrew (2013) for leadership self-efficacy, technology proficiency and instructional supervision, respectively. A total of 385 respondents from four Congressional Districts (CDs) in the Schools Division Office (SDO) Batangas Province consisting of 37 sub-offices participated in this study.
Results: Majority of the respondents are female and belong to proficient teachers or known as Teachers I to III. Only a few graduated with a doctorate degree, aged below 30 years old and with four years and below length of service. School heads' leadership self-efficacy, technology proficiency and instructional supervision were determined, and the respondents strongly agreed in general in all indicators. There was no significant difference on the three major constructs when grouped according to profile and generally, the responses do not differ significantly, and the responses are the same across the respondents' profile. There exists a highly significant relationship across the three major variables.
Conclusion: There was a highly significant relationship across the three major variables, that is, the better the leadership self-efficacy, the more proficient on technology and the better the instructional supervision is. An enhanced management development plan was proposed for DepEd school heads to address leadership self-efficacy, technology proficiency and instructional supervision.
Keywords: instructional supervision, leadership self-efficacy, management development plan, technology proficiency

INTRODUCTION

The school head or also known as the school principal has the responsibility of communicating and articulating the vision of learning and building support because the attainment of the school's mission cannot be achieved solely by the principal, but by communicating with other stakeholders in the school community (Hallinger & Lee, 2013). Bafadal et al. (2018) found out that school heads have strategic roles in the improvement of the quality of education. There is high demand for school heads to be accountable to happenings in the school environment and to keep breast with educational goals (Bada et al., 2020). School leaders create impact on the effectiveness of teachers' competencies which in turn, contribute to the students' lifelong learning; impact the direction of schools through their thinking, practices and relationships reiterating the school heads' vision for long-term development in all possible areas of concerns, to influence constituents (Bolman & Deal, 2013) and impact student outcomes through an interactive learning process as supported by core values.

Unfortunately, teachers' classroom practices and teaching competencies are also affected by fast-changing educational system brought by advanced technology or even various catastrophes. The Philippine educational system is embracing the continuous improvements, innovations and international trends in education. However, it is not easy for all the school leaders to undergo the transition from the traditional to 21st century leadership style. Thus, preparation on various leadership styles could be a great help to become more resilient in school management and instructional leadership. Unexpected and unavoidable levels of adversity are currently confronting school leaders in the

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Philippines and around the world. They face different challenges and problems that have plagued many, if not all, school organizations for years (Cabiling-Ramos, et al., 2024; Carvajal & Sanchez, 2023; Carvajal & Sanchez, 2024; Dizon & Sanchez, 2020; Muńoz & Sanchez, 2023; Sanchez, et al., 2024a). It may be due to aging and outdated school buildings, teacher morale problems, recruitment and selection issues, natural disasters, and the COVID-19 pandemic (Villar et al., 2021). Therefore, school heads are expected to possess leadership self-efficacy, the ability to lead others and guide a group in a unified direction, (Drescher et al., 2021).

School heads' leadership self-efficacy is vital for instructional leadership. Instructional leadership is one of the valuable keys to attain educational goals (Bush & Glover, 2016; Hallinger et al., 2018; Jarvis, 2018) and to create valuable teaching-learning (Manaseh, 2016; Hallinger & Walker, 2014). School heads' leadership self-efficacy impacts the direction of schools through their thinking, practices, and relationships reiterating the idea of leaders thinking in the long term, looking outside as well as inside, to influence constituents (Bolman & Deal, 2013). Further, school heads with leadership self-efficacy possess qualities of intuition, knowledge and strategy with practices that promote cultures of learning, involvement and improved student achievement. Successful school heads influence learning outcomes through an interactive learning process as supported by core values. Additionally, they need to not only be aware of their impact through instructional leadership practices but also be engaged in self-reflection to better understand their own instructional leadership practices, (McBrayer et al., 2020). Kim, Raza and Seidman (2019) elaborated that to create 21st century learners, school heads must focus on teachers' 21st century skills and reconceptualize how they can evaluate and train teachers. To achieve this, they have invoked constructivist understandings of what goes on in classrooms and teachers' practices. Consequently, they also need to be engaged in self-reflection to better understand their own practices for instructional leadership (McBrayer et al., 2020).

The school head's leadership self-efficacy is also essential in the Department of Education (DepEd) implementation of the Results-Based Performance Management System-Philippine Professional Standards for Teachers (RPMS-PPST) pursuant to DepEd Memorandum No. 4, s. 2022 as originally stipulated in the DepEd Order 42, s. 2017 for the effectiveness of the teachers' competencies and DepEd Order No. 2, s. 2015 highlighting the RPMS anchored to the Civil Service Commission (CSC) Memorandum Circular (MC) No. 06 s. 2012 for the school heads' and teachers' competencies.

Aside from leadership self-efficacy, the school heads' technology proficiency had also been challenged in the application of multiple learning delivery modalities. Technology-based transaction was highly encouraged in all schools in almost two consecutive school years since 2020, (DepEd Order No.12, s. 2020, DepEd Order No. 8, s. 2020) in accordance with the modified School Improvement Plan (SIP) and Annual Implementation Plan (AIP), thus, technology proficiency skills among the school heads had been stimulated for the continuous functions amidst critical pandemic situations. In coordination with the School Planning Team and School Governing Council through synchronous and asynchronous arrangements, all schools crafted school-based learning continuity plan to ensure the continuous learning while protecting the health, safety and well-being of all persons engaged in the educative process. To adapt in the fast-changing educational trend where innovations and technology integration play significant role, school leaders should be technology know-how instructional leader and advocate while teachers serve as learning facilitator and technology-agent in the school (Hero, 2020).

Furthermore, the new normal scenario, especially in the educational system has brought challenges in the school heads' instructional leadership specifically on instructional supervision. In relation to the third domain, focusing on Teaching and Learning, the school heads should perform instructional supervision for the effectiveness of the teachers' competencies in the RPMS-PPST implementation. DepEd set the standards for the competencies of school heads and teachers to stipulate the strategies, methods, tools, and rewards for assessing the accomplishments vis-à-vis the commitments which shall provide for an objective and verifiable basis for rating and ranking the performance of units and individual personnel in view of the granting of the Performance-Based Bonus (PBB) starting 2015, (DepEd Order No. 2, s. 2015).

To respond to the school heads' needs in the fast-changing educational management system, DepEd released Memorandum No. 50, s. 2020 on Teachers' and School Heads' DepEd Professional Development (PD) Priorities for school year 2020–2021 that include leading strategically, supervising school operations and resources, focusing on teaching and learning, developing self and others, and building connections. Based on the Revised Administrative Code of 1987, Performance Evaluation System is implemented to keep on improving the efficiency of individual employee as well as the effectiveness of an organization. Consequently, evaluation of teachers' performance can be greatly done through school heads' instructional supervision, a continual process that targets to improve teaching by providing intended facilities to the learning providers (Ahmed et al., 2021).

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To evaluate teachers' performance both proficient and highly proficient teachers, it needs supervisory skills for the school heads to effectively determine the strengths or pluses on teaching competencies and most especially the weak points or minuses for proper technical assistance. Through class observations and post observation feedback, principals guarantee that the teachers' ultimate goals in the classrooms are anchored with the stated department development plan (Amihan & Sanchez, 2023; Arrieta et al., 2020; Paraiso, et al., 2024; Salendab & Sanchez, 2023; Sanchez, 2020; Sanchez, 2023a; Sanchez & Sarmiento, 2020; Sanchez, Sanchez & Sanchez, 2023). Thus, school heads' mentoring and giving of feedback may be done continuously for teachers' improvement of work and behavior. As regards teachers' performance evaluation, Comighud (2019) elaborated that teaching personnel has been directed to IPCRF-Individual Performance Commitment Review Form which replicates the individual commitment and job performance which is strengthened in the RPMS-PPST implementation.

Having enumerated the various gaps relative to school heads' difficulties on transitioning way of instructional leadership; fast-changing educational system affecting teachers' practices and learners' quality learning; existence of pandemic situation and other catastrophes that require contingency learning plan for technology-based instruction and application for continuous service; and DepED implementation of RPMS-PPST for the effectiveness of the teachers' competencies, this research study was conducted to determine the leadership self-efficacy, technology proficiency and instructional supervision of elementary school heads in the DepEd Division of Batangas Province as basis for management development plan.

This study is relevant to the fourth goal of sustainable development plan of 2030 about obtaining quality education (Abushaqra, 2021) that aims to enable individuals to confront current and future global challenges constructively and creatively and to provide quality, comprehensive, complete, and equitable education for all members of society and to promote lifelong learning opportunities, (UNESCO, 2014; UNESCO, 2020). Aside from this, the study also supports the 1987 Constitution, Article XIV, Section 1 relative to the protection and promotion of the right of all citizens to quality education at all levels and making all possible ways to educate all Filipinos. DepEd is accountable, responsible and authorized for the protection and promotion of the right of every Filipino to access to quality basic education pursuant to the latter as well as Executive Order No.292, Republic Act (RA) No. 9155 and RA 10533. Moreover, this study is anchored to DepEd Basic Education Sector Reform Agenda (BESRA) with five major Key Reform Thrusts (KRTs) specifically the improved teaching effectiveness and teacher quality, (DepEd Order No.34, s. 2009).

The result of this study would give further understanding among the school heads and DepEd authorities about the significance of the three variables on improving the teachers' teaching competencies which in turn, the students' quality learning. This also intended to contribute to the body of research the significance of school heads' leadership self-efficacy, technology proficiency and instructional supervision in the improvement of instructional leadership through proposed management development plan in response to the findings of this study.

Objectives

This research paper determined the relationship among leadership self-efficacy, technology proficiency and instructional supervision of DepEd school heads as basis for management development plan.

Specifically, it sought to answer the following:

1. describe the demographic profile of the teachers in terms of age, sex, educational attainment, position, and length of service;
2. determine the school heads' leadership self-efficacy in terms of starting and leading change processes in groups, choosing effective followers and delegating responsibilities, building and managing interpersonal relationships within the group, showing self-awareness and self-confidence, motivating people, and gaining consensus of group members;
3. determine the school heads' technology proficiency as regards leadership and vision, teaching and learning, productivity and professional practice, support, management and operations, assessment and evaluation, and social, legal and ethical issues;
4. determine the school heads' instructional supervision in terms of framing the school goals, communicating the school goals, supervising and evaluating instruction, coordinating the curriculum, monitoring student progress, protecting instructional time, maintaining high visibility, providing incentives for teachers, promoting professional development, and providing incentives for learning;
5. test the significant difference on leadership self-efficacy, technology proficiency and instructional supervision of DepEd school heads when grouped according to demographic profile;
6. test the significant relationship across the three major variables; and
7. propose an enhanced management development plan based on the results of the study.

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METHODS

Research Design

This study utilized a quantitative-descriptive method to find out how school heads' leadership self-efficacy, technology proficiency and instructional supervision improve the teachers' effectiveness on teaching competencies. The data were gathered through standardized survey questionnaires suited to the problem set in the study. Dumlao et al. (2020) elaborated that descriptive research aims to describe and interpret through gathered information about prevailing conditions. Thus, it requires appropriate analyses, interpretation, comparisons, determining of trends and associations. Most of all, this kind of study employs scientific methods that include critical analysis, data interpretation, generalization, and prediction.

Furthermore, Ahmed (2016) cited that descriptive method enables the researcher to describe what sort of relationship that would exist among different variables related to the topic under the study and it is also convenient to gather data from a relatively large scale of respondents at a particular time to arrive at better generalization of the existing situation.

Descriptive studies aim to describe individuals, events, or situations through studying their nature and to look at the characteristics of a population, identify the problems that exist within a unit, an organization, or a population; look at variations in characteristics or practices between institutions of even countries, (Siedlecki, 2020). Sarfo and Cudjoe (2016) expounded that descriptive survey uses instruments such as questionnaires and interviews or quantitative and qualitative methods to gather information from people or subjects. This study was quantitative in nature to determine the impact of instructional supervision, technology proficiency and leadership self-efficacy of the school heads on the effectiveness of the teachers' competencies.

Participants of the Study

The respondents of the study were 385 out of 8,345 elementary permanent and nationally-funded teachers from four Congressional Districts (CDs) with 37 sub-offices in the Schools Division of Batangas Province. The researcher preferred the elementary level where she is engaged in for immediate access, communication and follow-ups. Substitute teachers and locally-funded teachers who are employed during the school year 2021-2022 are excluded in the study. The study was limited to elementary school teachers teaching Kindergarten to Grade 6 only.

Utilizing stratified probability sampling, the researcher got 127 out of 2,749 elementary teachers from CD1, 61 out of 1,318 from CD2, 99 out of 2,145 from CD3 and 98 out of 2,133 from CD4. Etikan and Babatope (2019) expounded that in stratified sampling, if a population consists of various distinct groups, they can be grouped into sub-categories called Strata. After which a random selection of a sample from each stratum can be carried out. Thus, each stratum is an independent sub-population cohort of the generation population with each consisting of unique or homogenous group classification. Each element in the stratum, thus, has an equal chance of being selected. The exact number of participants was derived from the samples in the given population through Slovin's Formula.

The researcher also employed both purposive and convenience sampling for the distribution of survey questionnaire per Congressional District (CD) and to complete the target responses from 385 participants in the study. A purposive sampling allows the researcher to select participants who are familiar with the required information and who have the time and willingness to reflect on the topic of interest, (Richards & Morse, 2007). A convenience sampling, on the other hand, is a non-probability method wherein the subjects are chosen in a non-random manner and some of the members of the population have no chance of being included, (Kahl & Joseph, 2019). A convenience sampling was used due to availability of the respondents during the administration of the e-questionnaire.

Data Gathering Instrument

This study utilized adapted survey questionnaires from Bobbio and Manganelli (2009), "Leadership self-efficacy scale. A new multidimensional instrument" for leadership self-efficacy; Duncan (2011), "An Assessment of Principals' Technology Leadership: A Statewide Survey" for technology proficiency and Pettiegrew (2013), "The Perceptions of Principal Instructional Leadership Practices on 8th Grade Ohio Achievement Assessment (OAA)" for instructional supervision.

The instrument has four parts: profile of the respondents, leadership self-efficacy technology proficiency, and instructional supervision. It was validated by the experts and then measured its reliability using the Cronbach's Alpha. Fifty (50) teachers from different elementary schools in the Division of Batangas were requested for pilot testing. Based on the results, research questions to determine the school heads' leadership self-efficacy are excellent with the average

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Cronbach's Alpha value of > .90. Specifically, four out of six indicators in the first variable are excellent with Cronbach's Alpha value of > .90 while the remaining two indicators are good with Cronbach's Alpha value of > .80. Fortunately, research questions to determine the school heads' technology proficiency are also excellent since it has a Cronbach's alpha value of > .90 same as with its six indicators with excellent reliability test results. Generally, for instructional supervision, the Cronbach's Alpha value was >.90 that signifies excellent test result. Moreover, research questions in all indicators in the third variable are excellent with the Cronbach's Alpha value of >.90. The reliability test results imply that the research questionnaire is valid for utilization.

The survey items employed a four-point Likert type scale to determine the relationship among leadership self-efficacy, technology proficiency and instructional supervision of DepEd school heads in Batangas province. This includes 4="Strongly Agree," 3="Agree," 2="Disagree" and 1= "Strongly Disagree." To ensure congruency among the test items, four-point Likert type scale was utilized in three variables. Therefore, same Four-point Likert Scale was utilized for the questionnaire on technology proficiency compiled by Duncan (2011) with 5-Point Likert Scale (5="Fully," 4="Significantly," 3="Somewhat," 2="Minimally," 1="Not at all"). Also, same four-point Likert Scale was utilized for instructional supervision compiled by Pettiegrew (2013) with 5-Point Likert Scale (5="Always," 4="Frequently," 3="Sometimes," 2="Seldom," 1="Never").

Data Gathering Procedures

Upon receiving the reliability test result of the adapted survey questionnaire from the statistician that signifies that the instrument is valid for utilization, the researcher employed the written correspondence as noted by the research adviser to seek permission from the district supervisor of Bauan West Sub-Office and request for approval from the superintendent of the Division of Batangas with the attached instrument and letters to the elementary school heads and respondents of the study.

As the researcher received the indorsement from the SDS, she generated e-questionnaire through Google form and tapped the district supervisors and elementary school heads who are already connected with her through Facebook, Messenger and Group Chat to distribute the e-questionnaire. To ensure that the target number of participants from each congressional district would be achieved, the researcher utilized varied offline and online platforms. Sending private messages through Messenger and DepEd account of school heads was also done to meet the required number of responses in the target period of time. The researcher also monitored the responses from time to time via Google Form; collected the e-mail address and set the limit to one response per respondent from the DepEd users only.

When completed, the researcher set the Google Form for not accepting the responses to ensure that the result from the target number of respondents would not be affected. Downloaded responses in excel form were forwarded to the statistician for statistical treatment and data analysis.

Data Analysis

To perform data analysis, the following statistical tools were used. Frequency and percentage distribution were used to describe the demographic profile of the teachers in terms of age, sex, educational attainment, position, and length of service. Weighted means and ranking were used to determine the school heads' leadership self-efficacy in terms of starting and leading change processes in groups, choosing effective followers and delegating responsibilities, building and managing interpersonal relationships within the group, showing self-awareness and self-confidence, motivating people, gaining consensus of group members; technology proficiency as regards leadership and vision, teaching and learning, productivity and professional practice, support, management and operations, assessment and evaluation, and social, legal and ethical issues; instructional supervision in terms of framing the school goals, communicating the school goals, supervising and evaluating instruction, coordinating the curriculum, monitoring student progress, protecting instructional time, maintaining high visibility, providing incentives for teachers, promoting professional development, providing incentives for learning. The result of Shapiro-Wilk Test revealed that p-values of the main variable was less than 0.05 which means that the data set is not normally distributed. Therefore, Mann Whitney U test for two groups and Kruskal Wallis for three groups were used as part of the non-parametric tests to determine the significant differences. Likewise, Spearman rho was used to test the significant relationship of the treated variables. In addition, post hoc test was also conducted. In addition, all data were treated using a statistical software known as PASW version 26 to further interpret the result of the study using an alpha level of 0.05 and 0.01.

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Ethical Considerations

The researcher adhered to a full consent through correspondence that was obtained from the respondents prior to the study. She assured that the data gathered were used only for the purpose of this research and were treated with utmost confidentiality. Moreover, the researcher understood that the attached data privacy consent for the respondents signifies their trust and support in the study; thus, should be valued and respected through guaranteeing the confidentiality of the profile and data they provided in the e-questionnaire.

The purpose of the study was thoroughly explained to the respondents so as to provide them with adequate understanding of the implications of their participation. Participants were reassured of the protection to their privacy and of the confidentiality of gathered data as guided by the Republic Act 10173 or the Data Privacy Act of 2012, the policy of the State to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth, (National Privacy Commission [NPC], 2011).

The researcher avoided misleading information and bias in this study. No offensive, discriminatory or other unacceptable language was contained in the questionnaire and in any part of the study. The questionnaire was subjected to the critiquing of experts to ensure its face and content validity. Objectivity of discussions and analyses was also maintained throughout the study. To ensure, validity and accuracy of results and findings, the researcher employed the help of the statistician in carrying out the necessary treatments in the study.

All works cited in this study were properly acknowledged following the APA referencing rules and verified through plagiarism checker. Furthermore, correctness of the entries along with grammar and mechanics were secured with the help of a grammarian.

RESULTS and DISCUSSION

Table 1 presents the demographic profile of the teachers in terms of age, sex, educational attainment, position, and length of service. Out of 385 teachers, majority of them are female with 95.60 percent and belong to proficient teachers or known as Teachers I to III with 83.60 percent. Only 0.8 percent of them graduated with doctoral degree but 42.30 percent of them were master's degree holder. There were only 17.10 percent of respondents aged below 30 years old and 18.10 percent of them with below 5 years in the service.

To describe the respondents, they are teachers from elementary schools in the four congressional districts in the division of Batangas Province. They are also the main clienteles of elementary school heads for instructional leadership relative to RPMS-PPST implementation as highlighted in the DepEd Order 42, s. 2017, DepEd Order No. 2, s. 2015, Civil Service Commission, DepEd Memorandum No. 4, s. 2022 and CSC Memorandum Circular (MC) 06 s. 2012.

With 385 teacher-respondents, this is a good quantity to evaluate the school heads' leadership self-efficacy, technology proficiency and instructional supervision as basis for management development plan.

Table 1
Percentage Distribution of the Respondents Profile

Age	**Frequency**	**Percentage %**
below 30 years old	66	17.1
30 – 39 years old	108	28.1
40 - 49 years old	109	28.3
50 years old and above	102	26.5
Sex		
Male	17	4.4
Female	368	95.6
Educational Attainment		
Bachelors Degree	219	56.9
Master's Degree holder	163	42.3
Doctoral Degree holder	3	.8
Position		
Teacher I-III	322	83.6
Master Teacher I-IV	63	16.4

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Length of Service		
4 years and below	71	18.4
5–10 years	84	21.8
11–20 years	120	31.2
more than 20 years	110	28.6

Table 2 shows the summary assessment on the school heads' leadership self-efficacy. With the composite mean of 3.61, the data revealed that the teachers strongly agreed in general. Four indicators such as choosing effective followers and delegating responsibilities, building, and managing interpersonal relationships within the group, showing self-awareness and self-confidence and motivating people got the highest mean score of 3.66. This implies that the teachers strongly agreed that these indicators create an impact on the school heads' leadership self-efficacy in the organizations. On the other hand, starting and leading change processes in groups rated the least with the lowest mean score of 3.39; however, it still strengthens its significance in the school heads' leadership self-efficacy as the teachers agreed with this indicator.

To illustrate it further, Avolio et al. (2012) claimed that leadership self-efficacy is one's perception of their own ability to self-regulate their thoughts and motivation, and successfully address the challenges of leadership. Bandura (1997) described individuals with high self-efficacy as people who are motivated, resilient to adversity, goal-oriented, and able to think clearly even under pressure or in stressing conditions. It is supported by Tschannen-Moran and Gareis (2004) who expanded that principal self-efficacy is a judgment of the capabilities of an individual to come up with a particular course of action to produce target outcomes in his or her organization including all the responsibilities and functions as the school heads. Thus, principal self-efficacy is conceptualized as a multidimensional construct. Versland and Erickson (2017) expounded that principal self-efficacy describes a set of beliefs that enable a principal to enact policies and procedures that promote the effectiveness of a school. These beliefs are important for guiding the school head's actions and behaviors that affect processes for school improvement, motivation for teachers' instruction and expectations for students' learning (Amihan, Sanchez & Carvajal, 2023; Bation & Nambatac, 2024; Bation, et al., 2024; Carvajal, et al., 2024a; Salendab, Ocariza-Salendab & Sanchez, 2023; Salendab, et al., 2024a; Sanchez, 2023b; Sanchez, et al., 2024b). Moreover, Goddard et al. (2015) asserted that strong instructional leadership influences collective efficacy through increasing opportunities for teacher collaboration around instructional improvement. Principal leadership efficacy is a multidimensional construct as Tschannen-Moran and Gareis (2004) had indicated motivating teachers, creating passion for a shared vision and managing change, facilitate student learning, and raise student achievement.

Furthermore, Bayraktar and Jiménez (2020) found out that self-efficacy is associated with transformational leadership and reactions to change, that is, the extent of changes in an organization experienced by the teachers moderated the association between self-efficacy and result variables. Thus, self-efficacy resulted to be the more salient and contributory resource leading to positive reactions in the context of great change. Building and managing interpersonal relationships within an organization and motivating the people are significant functions of a school head. Lambersky (2016) revealed that the behaviors of the principals shape the emotions of teachers in extraordinary ways, boost their morale, and influence commitment and self-efficacy. Therefore, these suggest that school heads can create impact on teachers' emotions through various factors such as showing professional respect for competence of teachers; provision of suited acknowledgement for the teachers' dedication, capability, and service; giving them protection from hurtful experiences; maintaining a visible presence in the school; allowing teachers' voices to be heard; and communicating a satisfying vision for their school.

Self-efficacy beliefs are positively associated with teachers' job involvement as job satisfaction and motivation in the workplace have full mediation effect. Moreover, the commitment and motivation of the organization greatly mediated the association between the self-efficacy and performance of job of teachers. An institution with great level of self-efficacy creates students' self-efficacy perceptions. On the other hand, the more increase on the self-efficacy of teachers, the more satisfaction, organization commitment, motivation, and involvement in their job, (Demir, 2020). Meanwhile, Johnson (2019) pointed out that the organizational leaders commonly shoulder the solution and sustainability the organizations' burden of generating the outcomes as they are charged with prioritizing objectives for subordinates and providing guidance towards achieving the overall vision of the organization. One way to explore this relationship among organizational leaders is to measure how individuals view their leadership ability and what, if any, relationship that view has on their attitudes and participation in professional development activities.

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Having presented the ideas and findings of various scholars on leadership self-efficacy, these strengthened the findings in this study that school heads' leadership self-efficacy is significant in the educational institutions most specifically in the development of teachers' self-efficacy and effectiveness in the organizations. Six highlighted indicators are school heads' functions which greatly contribute for their leadership self-efficacy, (Bobbio & Manganelli, 2009).

Table 2
Summary Table on Leadership Self-Efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Starting and leading change processes in groups	3.39	Agree	6
2. Choosing effective followers and delegating responsibilities	3.66	Strongly Agree	2.5
3. Building and managing interpersonal relationships within the group	3.66	Strongly Agree	2.5
4. Showing self-awareness and self-confidence	3.66	Strongly Agree	2.5
5. Motivating people	3.66	Strongly Agree	2.5
6. Gaining consensus of group members	3.61	Strongly Agree	5
Composite Mean	**3.61**	**Strongly Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

Table 3 displays the summary assessment on the school heads' technology proficiency. With the composite mean of 3.65, the data revealed that the teachers strongly agreed in all indicators. Productivity and professional practice got the highest mean score of 3.69. This implies that the teachers strongly agreed that this indicator creates an impact on the school heads' technology proficiency in the organizations. It is supported by Karakose et al. (2021) as they found out in their study that the level of use of digital technologies by school principals during the COVID-19 pandemic was perceived as adequate by teachers. Construction of a digital learning culture, occurrence of digital transformation and application of technology for professional development were supported by the school heads. The results of the study revealed that school principals' digital leadership skills were clustered under three categories: technology use, managerial skills, and individual skills. On the other hand, Thannimalai and Raman (2018) suggested for further studies to determine the significance of technology proficiency in the school heads' professional development, hence, to inspire teachers and learners in next coming generations. They also cited that previous studies pertaining to principals' leadership were more focused on primary factors such as technology literacy (Chang, 2012), technology leadership at High-Performance Schools or Sekolah Bestari (Hamzah et al., 2014), the impact and role of school leaders (Fisher & Waller, 2013) and teacher's ICT competence (Leong et al., 2016).

On the other hand, both leadership and vision and social, legal and ethical issues (3.65) ranked 2.5 that strengthened their significance in the school heads' technology proficiency as the teachers strongly agreed with both indicators. Vatanartiran and Karadeniz (2015) pointed out that the world needs technology for living and moving step forward. It is even possible to say that in the future (it may be such a close future), the world will be run by technology companies, not countries and that every technology company will have its own citizens, culture, identity, and economy. To adapt in the fast-changing educational trend where innovations and technology integration play significant role, school leaders should be technology know-how instructional leader and advocate while teachers serve as learning facilitator and technology-agent in the school, (Hero, 2020).

Citing the thoughts and findings from the studies of various scholars, these strengthened the findings in this study that the teachers strongly agreed that the school heads' technology proficiency in terms of leadership and vision, teaching and learning, productivity and professional practice, support, management and operations, assessment and evaluation, and social, legal and ethical issues is significant in the educational institutions, (Duncan, 2011). Thus, school leaders are technology proficient if they utilize technology in both management and operations and instructional leadership which creates an impact for the effectiveness of teachers, attainment of organizational goals and keeping abreast with the trend in the world of technology for continuous improvement and innovation.

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Table 3
Summary Table on Technology Proficiency

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Leadership and Vision	3.65	Strongly Agree	2.5
2. Teaching and Learning	3.63	Strongly Agree	4.5
3. Productivity and Professional Practice	3.69	Strongly Agree	1
4. Support, Management and Operations	3.62	Strongly Agree	6
5. Assessment and Evaluation	3.63	Strongly Agree	4.5
6. Social, Legal and Ethical Issues	3.65	Strongly Agree	2.5
Composite Mean	**3.65**	**Strongly Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 4 discloses the summary assessment on instructional supervision. The composite mean of 3.65 indicates that the teachers strongly agreed in all indicators relative to school heads' functions on instructional supervision. It can be gleaned from the data that communicating the school goals (3.71), framing the school goals (3.70) and promoting professional development (3.69) got the first three highest mean score, respectively. These findings were agreed by the findings of Arrieta et al. (2020) from their study using PIMRS, (Hallinger, 1982). They found out that the principals are fulfilling their roles as instructional leaders in terms of communicating the department's development plans, promoting professional development, supervising and evaluating instruction, and providing incentives for teachers. However, they need to enhance their instructional leadership roles in three areas namely maintaining high visibility, monitoring student progress, and framing the department's development plan. Also, Pettiegrew (2013) and Ahmed (2016) emphasized instructional leadership practices in their study which include framing school goals, communicating school goals, supervision and evaluation of instruction, coordination of the curriculum, monitoring of students' progress, protection of instructional time, maintaining high visibility, providing incentives for teachers, promotion of professional development and providing incentives for students.

School heads' instructional supervision is significant for it is a continual process that targets to improve teaching by providing intended facilities to the teachers. The school leader is also responsible, accountable and authorized for upgrading the teaching performance of teachers, motivating them and raising their morals, (Yunus et al., 2012). Arrieta et al. (2020) claimed that the time spent for instructional supervision is 70 percent while for administrative supervision is 30 percent. Therefore, the school principal should prioritize the instructional tasks and supervise curriculum and instruction among other roles and functions. Sarfo and Cudjoe (2016) affirmed that the main function of instructional leaders is the conduct of instructional supervision. In common usage, supervision means overseeing as interpersonal process where supervisor helps the less skilled practitioner for professional growth, thus, it is a fundamental component of counselling.

Furthermore, principals are responsible for the provision of instructional leadership to ensure high quality teaching and learning through supervising instructional programme and using of instructional time effectively, (Chiedozie & Victor, 2017). It was supported by Onuma (2016) that the principal is mainly concerned with effective instructional leadership practices for the improvement of diversified curriculum and quality of instructional programme for effective attainment of set school goals. Teachers should be reinforced and closely supervised for increased productivity, (Mbon et al., 2021).

Principals' instructional leadership practices are directly associated with the creation of the conditions for maximum level of the teaching and learning. Brandon et al. (2018) found out in their study that effective supervision and evaluation fosters teacher growth and ensures quality teaching. When a school's instructional capacity improves, teaching improves, leading to improvements in student performance.

Instructional supervision is a formative process involving classroom visitation, note writing, content delivery, geared towards improving teaching-learning outcomes. The aim of instructional delivery is to enable teachers improve and implement teaching-learning strategies, for better academic achievement (Akinfolarin & Rufai, 2017). Ampofo et al. (2019) expounded instructional supervision through cycle of activities between a supervisor and a teacher aiming to improve classroom performance where teachers are getting involved in the instructional dialogue to improve their

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performance and in turn, to increase students' achievement. They also stressed out that the school head has the main role to do the most important supervision and guidance in the school setting.

According to Nnebedum and Akinfolarin (2017), instructional supervision provides up-to-date information, skills and knowledge to supervisees and paves way for easy adaptation to innovative ways of instructional delivery. This idea had been strengthened by Mohammed (2016) as he cited that supervision is the basis for goal attainment, maintenance of standard, quality of teaching and learning.

In schools, teachers are not fully independent; they must work under the guidance of school heads who supervise their instructions for better performance and motivate them to do their best, (Ahmed et al., 2021). Also, Jiying et al. (2016) pointed out that teachers' performance increased by improving the school heads' instructional supervisory practices. School heads are responsible, accountable, and authorized for design, preparation, implementation, directions and leading for the uniformity and completeness of all programs and power sources, (Pont, 2020). The school heads' functions include giving direction, combating routine and encouraging good initiatives, improvement of teacher's professional status, the adoption and diffusion of better techniques and the meaning of progressive programs of action (Wambu & Fisher, 2015). Thus, supervisors should come forth and must make the decisions to improve the quality of teaching in their teachers, (Rahabav, 2016).

Instructional supervision's primary function is the improvement of instruction (Carvajal, et al., 2024b; Carvajal, Sanchez & Amihan, 2023; Salendab, et al., 2024b; Sanchez, 2022; Sanchez, et al., 2024c). Supervision of instructions is a component of general supervision that a school head is to carry out within a school. All over the world, the quality of supervision is preferred for the improvement of educational process and supervision in school plays pivotal role in this regard (Wahyu, 2020). In the school system, it is the responsibility of the school head to develop and maintain teachers' competence Principals as school heads, therefore, need to provide this support to teachers, they have to be involved in the implementation of instructional programmes by overseeing what teachers are doing with the students, (Sule et al., 2015).

Most of all, Kartini et al. (2020) revealed that there is significant impact between the principal's instructional leadership and the teachers' performance; between the academic supervision and the teachers' performance; between the professional competence and the teachers' performance; and there is a significant influence of principal's leadership, academic supervision, and professional competence simultaneously to teachers' performance.

The findings from this study as supported by the findings and arguments from various scholars and researchers imply that school heads perform significant roles on instructional supervision for the effectiveness of teachers, hence, the improvement of students learning.

Table 4
Summary Table on Instructional Supervision

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Framing the school goals	3.70	Strongly Agree	2
2. Communicating the school goals	3.71	Strongly Agree	1
3. Supervising and evaluating instruction	3.66	Strongly Agree	5
4. Coordinating the curriculum	3.67	Strongly Agree	4
5. Monitoring student progress	3.66	Strongly Agree	6
6. Protecting instructional time	3.61	Strongly Agree	8
7. Maintaining high visibility	3.56	Strongly Agree	10
8. Providing incentives for teachers	3.60	Strongly Agree	9
9. Promoting professional development	3.69	Strongly Agree	3
10. Providing incentives for learning	3.64	Strongly Agree	7
Composite Mean	**3.65**	**Strongly Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

It can be gleaned from the data on Table 5 the comparison of responses on the leadership self-efficacy when grouped according to profile. It was observed that there was no significant difference since the resulted p-values were all greater than the alpha level. This means that the responses do not differ significantly, and the responses are the same across the respondents' profile. This was agreed by the findings of Tweed (2013) that teachers' age, years of

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teaching experience and gender did not play a significant role in the self-efficacy by teachers. If these variables did not differ significantly in the teachers' self-efficacy, more likely, these would not also differ significantly in the school heads' leadership self-efficacy. Also, Escobin et al. (2022) found out that the profile variables of the teachers such as age, sex, educational background, and length of service did not significantly correlate with school performance. Although from their study, school performance was the construct being used, the result is still significant to the study due to the mere fact that the school heads lead the teachers for creating significant impact on the school performance; thus, the school heads' high efficacy is relevant for creating performing schools.

The findings from this study can be further investigated since the position of teachers was not explored from the cited studies and at the same time, there are studies that were able to establish a significant correlation between some profile indicators to school performance and school heads' leadership efficacy as mentioned in the study by Perera et al. (2019). According to them, profile characteristics at face value affect the teacher and school heads performance significantly, particularly in terms of highest educational attainment and length of service. Likewise, as pointed out by Bandura (1997), there are factors affecting self-efficacy such as past performance experience, vicarious experience, verbal persuasions, and physiological factors. Based on the theory of Bandura (1977), the study of Abun et al. (2021) proved their hypothesis that educational attainment and the length of work experience correlate to self-efficacy and there is a significant difference in the self-efficacy of employees grouped according to educational attainment and the length of work experience.

Table 5
Difference of Responses on Leadership Self-Efficacy When Grouped According to Profile

Age	λ^2_c / U	p-value	Interpretation
Starting and leading change processes in groups	2.878	0.411	Not Significant
Choosing effective followers and delegating responsibilities	4.421	0.219	Not Significant
Building and managing interpersonal relationships within the group	4.983	0.173	Not Significant
Showing self-awareness and self-confidence	2.386	0.496	Not Significant
Motivating people	4.919	0.178	Not Significant
Gaining consensus of group members	2.82	0.420	Not Significant
Sex			
Starting and leading change processes in groups	2963	0.700	Not Significant
Choosing effective followers and delegating responsibilities	3004	0.760	Not Significant
Building and managing interpersonal relationships within the group	2588	0.161	Not Significant
Showing self-awareness and self-confidence	2434.5	0.090	Not Significant
Motivating people	2578.5	0.151	Not Significant
Gaining consensus of group members	2849.5	0.482	Not Significant
Educational Attainment			
Starting and leading change processes in groups	4.63	0.099	Not Significant
Choosing effective followers and delegating responsibilities	1.906	0.386	Not Significant
Building and managing interpersonal relationships within the group	4.067	0.131	Not Significant

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Showing self-awareness and self-confidence	4.202	0.122	Not Significant
Motivating people	2.669	0.263	Not Significant
Gaining consensus of group members	3.266	0.195	Not Significant
Position			
Starting and leading change processes in groups	9368.5	0.316	Not Significant
Choosing effective followers and delegating responsibilities	8801.5	0.066	Not Significant
Building and managing interpersonal relationships within the group	9050	0.115	Not Significant
Showing self-awareness and self-confidence	9070.5	0.145	Not Significant
Motivating people	9133	0.143	Not Significant
Gaining consensus of group members	9108	0.147	Not Significant
Length of Service			
Starting and leading change processes in groups	3.012	0.390	Not Significant
Choosing effective followers and delegating responsibilities	2.827	0.419	Not Significant
Building and managing interpersonal relationships within the group	5.39	0.145	Not Significant
Showing self-awareness and self-confidence	5.399	0.145	Not Significant
Motivating people	4.579	0.205	Not Significant
Gaining consensus of group members	1.896	0.594	Not Significant

Legend: Significant at p-value < 0.05

Table 6 reveals the comparison of responses on technology proficiency when grouped according to profile. It was observed that there was significant difference on productivity and professional practice when grouped according to sex since the resulted p-value of 0.027 was less than the alpha level. This means that the responses differ significantly from the test conducted, it was found out that female have greater assessment than male. This was supported by Asio (2021) as he revealed from his study that there were significant differences found in the work productivity of the academic staff when grouped according to sex. In terms of work productivity, there is a significant difference observed in the academic staff response. Since the t-value was 2.685 which corresponds to a p-value of .010 is lower than the alpha level of significance of .05. This evidence shows that the sex of the academic staff affects the work productivity of academic staff. This implies that female teachers have greater responses relative to productivity and professional practice. Furthermore, Sison and Junio (2019) aimed to determine the relationship between school heads' supervision practices and teachers' instructional performance as basis for a proposed mentoring program. The findings of the study reveal that female teachers are more dominant than males. Meanwhile, in the study of Sawatsupaphon (2018), the number of female respondents was 50 (65.8%), which outweighed the 26 male responses (34.2%). This indicated that the majority of Grade 7 to 12 full-time teachers at the school were female and that males were the minority. Commonly, the number of female teachers is greater than the number of male teachers in the educational institutions; hence, female educators are more productive and engaged in the professional practice.

As to educational attainment, responses vary on teaching and learning (p=0.018), assessment and evaluation (p=0.007) and social, legal and ethical issues (p=0.012). These significant differences lie on those who obtained masteral degree. For teaching and learning, Yu (2021) revealed the effect of educational levels on online learning outcomes, especially during the COVID-19 pandemic. Hence, the study could provide a meaningful reference for online teachers and instructors to improve the effectiveness of online instruction. Furthermore, Yazon and Managig (2017) found out that teacher-respondent's performance differs significantly when they were grouped according to highest educational attainment. The researchers concluded that when teachers were grouped according to highest educational attainment, significant differences between their mean performance existed. The higher the level of education, the

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better the performance. Therefore, pursuing higher education will create a significant difference on the teachers' teaching performance and later, the improvement of students' learning.

For assessment and evaluation, Zhang (2008) found out that Science teachers with advanced degrees in Science or Education significantly and positively associated with student Science achievement. It was concluded that hiring and developing qualified and better teachers is able to help students achieve in Science. Likewise, Nyatsikor et al. (2020) examined the association between teacher characteristics and primary school children's educational attainment. They reveal that teacher certification and experience were associated with children's attainment in both Mathematics and English language. The effect of teachers' certification and experience in the attainment of students' learning has significant implications for teacher professional development and deployment policies. Therefore, teachers' educational attainment creates a significant difference on the assessment and evaluation.

For social, legal, and ethical issues, Bedural (2018) supported the findings of this study as she disclosed that Filipinos' educational attainment significantly influenced their values, attitudes and actions towards the environment. Specifically, those who attain higher education manifest more positive values, performance, and attitude in an organization than those with lower education (Sanchez, et al., 2024d; Sanchez, et al., 2022). In contrary, the construct of Educational Attainment used in the study of Burke (2015) did not reveal a predictive relationship with the legal and ethical issues such as Level of Intrusiveness, the Ruling of the Court, Criminal Proceedings, and the Number of Searches conducted. However, the analysis did reveal areas of recommended research to continue to ensure that students' civil liberties are not being violated.

Lastly, there was also significant difference on teaching and learning when grouped according to length of service because the resulted p-value of 0.014 was less than the alpha level. From the post hoc test conducted, those who are working for 11 to 20 years have better assessment compared to others. It was supported by Yazon and Ang-Manaig (2017) as they disclosed that that teacher-respondent's response on teaching and learning differs significantly when they were grouped according to years in service. The researchers concluded that when teachers were grouped according to years in service, significant differences between their mean performance existed, that is, the longer the teacher's length of service, the better the performance. In the contrary, Zhang (2008) affirmed that the years of teaching experience in science did not directly influence student science achievement. Therefore, it is suggested to conduct further studies to determine the significant difference on teaching and learning when grouped according to length of service.

Table 6
Difference of Responses on Technology Proficiency When Grouped According to Profile

Age	λ^2_c / U	p-value	Interpretation
Leadership and Vision	5.037	0.169	Not Significant
Teaching and Learning	4.968	0.174	Not Significant
Productivity and Professional Practice	3.683	0.298	Not Significant
Support, Management and Operations	1.183	0.757	Not Significant
Assessment and Evaluation	4.857	0.183	Not Significant
Social, Legal and Ethical Issues	1.421	0.701	Not Significant
Sex			
Leadership and Vision	2541.5	0.147	Not Significant
Teaching and Learning	2581.5	0.182	Not Significant
Productivity and Professional Practice	2255	0.027	Significant
Support, Management and Operations	2810.5	0.444	Not Significant
Assessment and Evaluation	2579.5	0.173	Not Significant
Social, Legal and Ethical Issues	2530.5	0.144	Not Significant
Educational Attainment			
Leadership and Vision	1.753	0.416	Not Significant
Teaching and Learning	8.072	0.018	Significant
Productivity and Professional Practice	1.586	0.453	Not Significant
Support, Management and Operations	5.485	0.064	Not Significant

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Assessment and Evaluation	9.913	0.007	Significant	*Legend:*
Social, Legal and Ethical Issues	8.838	0.012	Significant	
Position				
Leadership and Vision	9479	0.362	Not Significant	
Teaching and Learning	8795	0.067	Not Significant	
Productivity and Professional Practice	9306	0.238	Not Significant	
Support, Management and Operations	9211.5	0.212	Not Significant	
Assessment and Evaluation	9212	0.199	Not Significant	
Social, Legal and Ethical Issues	9276.5	0.240	Not Significant	
Length of Service				
Leadership and Vision	7.063	0.070	Not Significant	
Teaching and Learning	10.606	0.014	Significant	
Productivity and Professional Practice	4.285	0.232	Not Significant	
Support, Management and Operations	0.737	0.865	Not Significant	
Assessment and Evaluation	7.709	0.052	Not Significant	
Social, Legal and Ethical Issues	2.808	0.422	Not Significant	

Significant at p-value < 0.05

Table 7 discloses the comparison of responses on instructional supervision when grouped according to profile. It was observed that there was significant difference on framing the school goals (p = 0.028), communicating the school goals (p = 0.043), protecting instructional time (p = 0.028), providing incentives for teachers (p = 0.030) and providing incentives for learning (p = 0.035) when grouped according to position of teachers since the resulted p-values were less than the alpha level. This means that the responses differ significantly and based on the pairwise comparison, it was found out that those who are Teachers I to III have greater assessment than Master Teachers I to IV.

The significant difference on framing the school goals when grouped according to position of teachers was supported by Salleh (2013) as he elaborated that the principals' role is to determine the areas on which the teachers will pay their attention and resources in a specific period of time. To frame the school goals, the school head capacitates teachers on the student achievement through instructional supervision specially Teachers I to III or commonly known as proficient teachers. They are the ones who greatly need technical assistance, coaching and mentoring from school heads, specifically in the field of instruction. Schools with effective instructions often have clearly defined goals on students' achievement. Sawatsupaphon (2018) also strengthened the findings of this study as he elaborated that the development of school goals might be understood more when interpreted in light of the substance of the school, that is, the school's capacity to improve student academic performance. It is necessary that this is a fundamental role of the school mission and developing goals that are understood from this perspective focuses all the necessary resources. Furthermore, DepEd Memorandum No. 50, s. 2020, DepEd Memorandum No. 4, s. 2022 and DepEd Order No. 42, s. 2017 strengthened teachers' professional development specifically the national adoption and implementation of the RPMS-PPST to recognize the importance of professional standards in continuing professional development and advancement of teachers based on the lifelong learning principle. Hence, enhancing the quality of teachers becomes of utmost concern for long term and sustainable nation building. Therefore, school heads' instructional supervision among the proficient teachers is significant for student achievement as the best indicator for framing the goal.

On the other hand, the significant difference on communicating the school goals when grouped according to position of teachers was strengthened by Wardani, Santosa and Rahmawati (2021) as they expanded that academic supervision and interpersonal communication are contributing factors to improve teachers' performance. To communicate the school goals through instructional supervision, Bafadal et al. (2018) revealed the significance of school heads' leadership function as an educational leader. Salleh (2013) affirmed that the education goals should be communicated by the school head among the teachers, parents and students. To communicate the school goals particularly with the teachers, school heads conduct instructional supervision highlighting the student achievement which usually reflects the teachers' teaching performance. Teachers I to III are proficient teachers who also serve as ratees in instructional supervision conducted by the school heads and master teachers as raters. Moreover, Bhebhe and Nyathi (2019) and Brock et al. (2021) supported the findings of this study that instructional leaders were required to maintain weekly communications with all of the teachers under their supervision. Commonly, proficient teachers or

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Teachers I to III need more technical assistance from the school head compared to highly proficient teachers or Master Teachers I to IV who also serve as raters.

Also, the significant difference on protecting instructional time when grouped according to position of teachers was supported by Murphy (2007) as he affirmed that through instructional supervision, school heads work tirelessly with teachers particularly the beginning and proficient teachers to maximize quality time for instructions. School heads are expected to give ample time on instructional supervision for beginning and proficient teachers to guide them that the class and teachers' programs are religiously followed in accordance with the time allotment per learning area.

Meanwhile, the significant difference on providing incentives for teachers when grouped according to position of teachers was agreed by Malinda et al. (2019) as they disclosed that providing incentives particularly with the beginning and proficient teachers motivate their workforce in order to improve achievement and efficiency to meet or even exceed with the specified standard. Makruf et al. (2020) proved in their study that providing incentives significantly affects teacher performance, simply because the higher the teacher's income, the higher the teacher's loyalty. The conduct of instructional supervision is the best mean for determining the teacher's performance, (DepEd Order No.2, s. 2015). Arrieta et al. (2020) agreed that affirmed that the school heads always display instructional leadership behavior in providing incentives for teachers by clearly explaining the result of the teachers' evaluation, affirming teachers, commending teachers for their efforts and service and recognizing their outstanding instruction. Onyali and Victor (2017) revealed that school heads and teachers agreed that involving school personnel in decision making process to maintain mutual relationship among others are teachers' incentive practices. In the conduct of instructional supervision, school heads can provide incentives among the teachers to motivate their effectiveness, to give compliments even in their simple good deeds, express appreciation and acknowledgement for their presence and great work in the school. Commonly, Teachers I to III as proficient teachers are provided with more incentives for them to be motivated for professional growth and development in curriculum and instruction.

Furthermore, the significant difference on providing incentives for learning when grouped according to position of teachers was strengthened by Onyali and Victor (2017) as they found out in their study that provision of incentives encourage students for learning, to reach certain goals, encourage a specific target behavior and teamwork for collective high performance (Atambo et al., 2013), to improve the quality of learning activities in school (Mehmet & Yan, 2017). Students will perform better when they are provided with extrinsic motivation like the provision of incentives. The provision of incentives for learning helps the proficient teachers to increase the active participation of learners and to motivate them to improve their performance in the class.

Table 7
Difference of Responses on Instructional Supervision When Grouped According to Profile

Age	**λ^2_c / U**	**p-value**	**Interpretation**
Framing the school goals	4.463	0.216	Not Significant
Communicating the school goals	3.023	0.388	Not Significant
Supervising and evaluating instruction	1.834	0.608	Not Significant
Coordinating the curriculum	0.429	0.934	Not Significant
Monitoring student progress	4.302	0.231	Not Significant
Protecting instructional time	1.499	0.682	Not Significant
Maintaining high visibility	1.424	0.700	Not Significant
Providing incentives for teachers	0.626	0.89	Not Significant
Promoting professional development	2.295	0.514	Not Significant
Providing incentives for learning	1.418	0.701	Not Significant
Sex			
Framing the school goals	2542	0.132	Not Significant
Communicating the school goals	2685.5	0.244	Not Significant
Supervising and evaluating instruction	2868.5	0.520	Not Significant
Coordinating the curriculum	2698	0.281	Not Significant
Monitoring student progress	2586	0.181	Not Significant
Protecting instructional time	2604.5	0.209	Not Significant
Maintaining high visibility	2589	0.202	Not Significant
Providing incentives for teachers	2976	0.713	Not Significant

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Promoting professional development	2440	0.080	Not Significant	*Legend:*
Providing incentives for learning	2817.5	0.443	Not Significant	
Educational Attainment				
Framing the school goals	2.137	0.344	Not Significant	
Communicating the school goals	1.028	0.598	Not Significant	
Supervising and evaluating instruction	1.099	0.577	Not Significant	
Coordinating the curriculum	2.841	0.242	Not Significant	
Monitoring student progress	2.015	0.365	Not Significant	
Protecting instructional time	1.714	0.424	Not Significant	
Maintaining high visibility	2.214	0.331	Not Significant	
Providing incentives for teachers	2.262	0.323	Not Significant	
Promoting professional development	1.619	0.445	Not Significant	
Providing incentives for learning	3.139	0.208	Not Significant	
Position				
Framing the school goals	8608	0.028	Significant	
Communicating the school goals	8756	0.043	Significant	
Supervising and evaluating instruction	9192	0.191	Not Significant	
Coordinating the curriculum	9281	0.230	Not Significant	
Monitoring student progress	8745	0.055	Not Significant	
Protecting instructional time	8495.5	0.028	Significant	
Maintaining high visibility		0.134	Not Significant	
Providing incentives for teachers	8521	0.030	Significant	
Promoting professional development	8836	0.064	Not Significant	
Providing incentives for learning	8608.5	0.035	Significant	
Length of Service				
Framing the school goals	7.218	0.065	Not Significant	
Communicating the school goals	4.102	0.251	Not Significant	
Supervising and evaluating instruction	3.75	0.290	Not Significant	
Coordinating the curriculum	2.331	0.507	Not Significant	
Monitoring student progress	5.265	0.153	Not Significant	
Protecting instructional time	3.725	0.293	Not Significant	
Maintaining high visibility	2.076	0.557	Not Significant	
Providing incentives for teachers	0.828	0.843	Not Significant	
Promoting professional development	3.536	0.316	Not Significant	
Providing incentives for learning	2.317	0.509	Not Significant	

Significant at p-value < 0.05

Table 8 shows the association between leadership self-efficacy and technology proficiency. The computed rho-values indicate a very strong direct correlation, and the resulted p-values were less than the alpha level. The result reveals that there was significant relationship exists and indicates that the better the leadership self-efficacy, the more proficient on technology. The findings on significant association between leadership self-efficacy and technology proficient was supported by Drescher et al. (2021) as they elaborated that school heads' leadership self-efficacy indicates the ability to lead others and guide a group in a unified direction. Likewise, Avolio et al. (2012) strengthened this idea that school heads can self-regulate their thoughts and motivation and successfully address the challenges of leadership. In the fast-changing educational system where technology and innovations exist, school heads should have the ability to adapt the continuous changes specifically in the utilization of technology for effective instructional leadership and school management. Therefore, they should be technology proficient to lead and guide the teachers specifically in the world of technology and innovations.

In addition, school heads' leadership self-efficacy on affecting behavior (Yost et al., 2019; Bandura, 1997), handling specific situations or duties required of him/her (Bandura, 1986), performing cognitive and behavioral functions (McCormick, 2001) are necessary to lead teachers toward achievement of goals for meeting students' educational achievement especially with regard to technology proficiency. To make the learner's technology inclined,

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the teachers should also be proficient in the digital instruction. To meet the trend in today's advancement in technology, school heads are expected to be effective in technology utilization.

School heads' leadership efficacy signifies the ability to lead and persevere through challenges, (Bandura, 1994). Say for instance, the existence of Covid-19 virus which resulted to cancellation of face-to-face classes for almost two years and adoption of distance learning delivery modality (DepEd Order No. 8, s. 2020) challenged the school heads' leadership efficacy on how to perform instructional leadership with technology integration and utilization. Utilization of varied offline and online platforms challenged the leadership efficacy particularly due to crucial period of pandemic situation.

The significant relationship between leadership self-efficacy and technology proficiency was further strengthened by Tschannen-Moran and Gareis (2004), Versland and Erickson (2017) as they elaborated principal self-efficacy as a judgment of one's own skills to structure a particular course of action to come up with desired outcomes in their own respective workplace. This simply signifies the strong bond between the school heads' capabilities for envisioning digital education and the implementation of the course of actions through technology proficiency. Fisher (2020) affirmed that principals' self-efficacy highlights a certain level of confidence in one's knowledge, skills, and abilities, which are associated with the task of leading. This implies that school heads are expected to be knowledgeable and skilled in digital advancement to lead the teachers on technology utilization in performing their functions. Goddard et al. (2015) emphasized that strong instructional leadership influences collective efficacy through increasing opportunities for teachers' collaboration around instructional improvement. Hence, teachers' instructional improvement is commonly resulted from technological advancement and innovations. School heads as transformational leaders in the 21st century are expected to start and lead change processes in an organization, (Bayraktar & Jiménez, 2020). School heads' behaviors mold teachers' emotions in extraordinary ways, (Lambersky, 2016). If the school heads' leadership self-efficacy is high, its impact on the direction of schools in terms of technology advancement and innovations is also getting high. Therefore, the school heads' leadership self-efficacy is greatly associated with technology proficiency.

Table 8
Relationship Between Leadership Self-Efficacy and Technology Proficiency

Starting and leading change processes in groups	rho	p-value	Interpretation
Leadership and vision	.567**	0.000	Highly Significant
Teaching and Learning	.574**	0.000	Highly Significant
Productivity and professional practice	.523**	0.000	Highly Significant
Support, management and operations	.573**	0.000	Highly Significant
Assessment and evaluation	.577**	0.000	Highly Significant
Social, legal and ethical issues	.577**	0.000	Highly Significant
Choosing Effective followers and delegating responsibilities			
Leadership and vision	.730**	0.000	Highly Significant
Teaching and Learning	.752**	0.000	Highly Significant
Productivity and professional practice	.734**	0.000	Highly Significant
Support, management and operations	.693**	0.000	Highly Significant
Assessment and evaluation	.701**	0.000	Highly Significant
Social, legal and ethical issues	.719**	0.000	Highly Significant
Building and Managing interpersonal relationships within the group			
Leadership and vision	.747**	0.000	Highly Significant
Teaching and Learning	.740**	0.000	Highly Significant
Productivity and professional practice	.711**	0.000	Highly Significant
Support, management and operations	.695**	0.000	Highly Significant
Assessment and evaluation	.691**	0.000	Highly Significant
Social, legal and ethical issues	.673**	0.000	Highly Significant

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Showing self-awareness and self-confidence			
Leadership and vision	.796**	0.000	Highly Significant
Teaching and Learning	.792**	0.000	Highly Significant
Productivity and professional practice	.745**	0.000	Highly Significant
Support, management and operations	.753**	0.000	Highly Significant
Assessment and evaluation	.757**	0.000	Highly Significant
Social, legal and ethical issues	.734**	0.000	Highly Significant
Motivating People			
Leadership and vision	.778**	0.000	Highly Significant
Teaching and Learning	.764**	0.000	Highly Significant
Productivity and professional practice	.761**	0.000	Highly Significant
Support, management and operations	.737**	0.000	Highly Significant
Assessment and evaluation	.740**	0.000	Highly Significant
Social, legal and ethical issues	.713**	0.000	Highly Significant
Gaining consensus of group members			
Leadership and vision	.811**	0.000	Highly Significant
Teaching and Learning	.755**	0.000	Highly Significant
Productivity and professional practice	.771**	0.000	Highly Significant
Support, management and operations	.765**	0.000	Highly Significant
Assessment and evaluation	.750**	0.000	Highly Significant
Social, legal and ethical issues	.759**	0.000	Highly Significant

Legend: Significant at p-value < 0.05

Table 9 displays the association between leadership self-efficacy and instructional supervision. The computed rho-values indicate a very strong direct correlation, and the resulted p-values were less than the alpha level. This implies that there was significant relationship exists and shows that the better the leadership self-efficacy, the better the instructional supervision is. This agreed with the findings from the study of Akins (2019) that instructional leadership practices of school leaders predict their leadership self-efficacy. Likewise, Özdemir et al. (2020) found out that there is a significant medium level relationship between principals' instructional behaviours and teachers' self-efficacy. Also, school heads' behaviors contribute positively to teachers' motivation and task focality, the learners' ability and the self-evaluation skills of the teachers about themselves and students. The data revealed that instructional leadership behaviours positively contributed not only to teachers' behaviours on curriculum implementation and diversification and evaluation of teaching methods, but also their morale, expectations and task-oriented work. Therefore, the principals can create environments in which they can develop communication with teachers to increase teachers' self-efficacy beliefs; provide support for teachers in preparing instructional environments suitable for the purposes of school and education; and support teachers in terms of professional development by exhibiting instructional leadership behaviors. Also, Drescher et al. (2021) affirmed that school heads' leadership self-efficacy indicates the ability to lead others and guide a group in a unified direction. This implies that school heads' ability on effective instructional leadership will lead to the attainment of the organizational goal. This simply signifies the strong bond between leadership self-efficacy and instructional supervision. School heads as transformational leaders in the 21st century are expected to start and lead change processes in an organization (Bayraktar & Jiménez, 2020) particularly in instructional supervision. School heads' behaviors shape teacher emotions in important ways, (Lambersky, 2016). Effective instructional leaders with high leadership self-efficacy make changes in the educational institutions particularly

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among the teachers by ensuring that teachers teach and students learn, guaranteeing that classrooms are equipped with various facilities for the enhancement of teaching and learning processes, securing that the teaching and learning time is abided by all teachers, planning school aims and warranting that they are understood and complied by all teachers and students, (Ismail et al., 2018).

Principals can promote positive teacher efficacy through direct supervision and engagement in instructional leadership activities, (Duyar et al., 2013). Xie et al. (2022) testified to the positive role that teacher-perceived principal leadership played in teacher self-efficacy. This simply means that the school heads' leadership self-efficacy is positively correlated with the teachers' self-efficacy which can be done through effective instructional supervision. Moreover, Jackson (2020) found a positive relationship between the leadership self-efficacy of school administrators and their instructional leadership tasks. Although, there was no statistically significant difference between the leadership self-efficacy for the instructional leadership tasks based upon the roles of school administrator, there was a linear relationship between leadership self-efficacy and the instructional leadership tasks. This means the types of tasks and the specific role of the school administrator might not determine the leadership self-efficacy of the principals. However, leadership self-efficacy could possibly increase or decrease dependent upon the increase or decrease of the instructional leadership tasks completed.

Table 9

Relationship Between Leadership Self-Efficacy and Instructional Supervision

Starting and leading change processes in groups	rho	p-value	Interpretation
Framing the school goals	.516**	0.000	Highly Significant
Communicating the school goals	.544**	0.000	Highly Significant
Supervising and evaluating instruction	.545**	0.000	Highly Significant
Coordinating the curriculum	.549**	0.000	Highly Significant
Monitoring student progress	.559**	0.000	Highly Significant
Protecting instructional time	.617**	0.000	Highly Significant
Maintaining high visibility	.581**	0.000	Highly Significant
Providing incentives for teachers	.564**	0.000	Highly Significant
Promoting professional development	.529**	0.000	Highly Significant
Providing incentives for learning	.579**	0.000	Highly Significant
Choosing Effective followers and delegating responsibilities			
Framing the school goals	.720**	0.000	Highly Significant
Communicating the school goals	.733**	0.000	Highly Significant
Supervising and evaluating instruction	.676**	0.000	Highly Significant
Coordinating the curriculum	.683**	0.000	Highly Significant
Monitoring student progress	.719**	0.000	Highly Significant
Protecting instructional time	.724**	0.000	Highly Significant
Maintaining high visibility	.672**	0.000	Highly Significant
Providing incentives for teachers	.706**	0.000	Highly Significant
Promoting professional development	.707**	0.000	Highly Significant
Providing incentives for learning	.726**	0.000	Highly Significant
Building and managing interpersonal relationships within the group			
Framing the school goals	.696**	0.000	Highly Significant
Communicating the school goals	.698**	0.000	Highly Significant
Supervising and evaluating instruction	.627**	0.000	Highly Significant
Coordinating the curriculum	.629**	0.000	Highly Significant
Monitoring student progress	.636**	0.000	Highly Significant

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Protecting instructional time	.617**	0.000	Highly Significant
Maintaining high visibility	.630**	0.000	Highly Significant
Providing incentives for teachers	.642**	0.000	Highly Significant
Promoting professional development	.665**	0.000	Highly Significant
Providing incentives for learning	.622**	0.000	Highly Significant
Showing self-awareness and self-confidence			
Framing the school goals	.770**	0.000	Highly Significant
Communicating the school goals	.743**	0.000	Highly Significant
Supervising and evaluating instruction	.701**	0.000	Highly Significant
Coordinating the curriculum	.720**	0.000	Highly Significant
Monitoring student progress	.707**	0.000	Highly Significant
Protecting instructional time	.712**	0.000	Highly Significant
Maintaining high visibility	.705**	0.000	Highly Significant
Providing incentives for teachers	.689**	0.000	Highly Significant
Promoting professional development	.733**	0.000	Highly Significant
Providing incentives for learning	.722**	0.000	Highly Significant
Motivating People			
Framing the school goals	.725**	0.000	Highly Significant
Communicating the school goals	.734**	0.000	Highly Significant
Supervising and evaluating instruction	.637**	0.000	Highly Significant
Coordinating the curriculum	.675**	0.000	Highly Significant
Monitoring student progress	.677**	0.000	Highly Significant
Protecting instructional time	.659**	0.000	Highly Significant
Maintaining high visibility	.644**	0.000	Highly Significant
Providing incentives for teachers	.650**	0.000	Highly Significant
Promoting professional development	.708**	0.000	Highly Significant
Providing incentives for learning	.662**	0.000	Highly Significant
Gaining consensus of group members			
Framing the school goals	.727**	0.000	Highly Significant
Communicating the school goals	.708**	0.000	Highly Significant
Supervising and evaluating instruction	.650**	0.000	Highly Significant
Coordinating the curriculum	.709**	0.000	Highly Significant
Monitoring student progress	.677**	0.000	Highly Significant
Protecting instructional time	.700**	0.000	Highly Significant
Maintaining high visibility	.674**	0.000	Highly Significant
Providing incentives for teachers	.706**	0.000	Highly Significant
Promoting professional development	.699**	0.000	Highly Significant
Providing incentives for learning	.686**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 10 presents the association between technology proficiency and instructional supervision. The computed rho-values indicate a very strong direct correlation, and the resulted p-values were less than the alpha level. This implies that there was significant relationship exists and shows that the more proficient on technology, the better the instructional supervision is.

This was supported by Turugare and Rudhumbu (2020) as they strengthened the idea that technology is now considered a critical and essential tool for enhancing teaching and learning by enabling students to access education from anywhere, at any time and often at their own pace. This was also elaborated by Vatanartiran and Karadeniz (2015) that stressed out that the world will be run by technology companies and even the educational institutions

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adapted in the fast-changing world where technology utilization in all types of functions is being implemented for quick, accurate and effective delivery of services. If the educational institutions implemented technology integration, therefore, school heads as the lead proponents for technology-based functions should be proficient in both instructional leadership and school management.

This agreed with the finding of Hero (2020) that school leaders should be technology know-how instructional leader and advocate while teachers serve as learning facilitator and technology-agent in the school. Moreover, Saad and Sankaran (2022) expounded that school heads' technology proficiency signifies their ability to use technology to communicate effectively and professionally, organize information, produce high-quality products, and enhance thinking skills particularly in instructional leadership. McCoy-Thomas (2012) agreed on the significance of understanding and integrating technology into the instructional process and identifying and evaluating technology-based materials for effective instruction.

Furthermore, Brock et al. (2021) revealed the significant association between the two constructs as they found out that through instructional supervision, the strengths and weaknesses for technology proficiency are identified. The significant relation between the two variables agreed with the finding of Hsieh et al. (2014) as they revealed that principals' technology leadership positively affects teaching innovation, which in turn directly affects students' academic optimism. Principals' technology leadership also positively influences students' academic optimism.

Also, Vatanartiran and Karadeniz (2015) argued that the use of technology in educational settings effectively requires change in pedagogical beliefs, attitudes, and practices. The school principal who integrates technology into any kind of administrative, instructional, and developmental processes in the school, we can say that this principal acts as a catalyst for school wide technology integration. McCoy-Thomas (2012) claimed that proficiency of the principal can drastically affect the role of technology in the school. It is important for the school leaders to envision opportunities for technology in teaching and learning. Thannimalai and Raman (2018) affirmed that that there is a significant relationship between principals' technology leadership and teachers' technology integration. Sterrett and Richardson (2020) disclosed that technology-savvy leaders help shape the professional ethos of the school, including embracing and supporting innovation while supporting others' learning and growth.

Likewise, Yu and Prince (2016) found out in their study that the effective integration and utilization of technology in educational institutions hinges on school heads' technology leadership skills. Fisher and Waller (2013) revealed in their study that school heads who possess the skills to determine and evaluate the effectiveness of technology integration in the schools are better prepared to lead their teachers on three different levels such as guiding teachers in the design and differentiation of instruction based on diverse student needs, assisting teachers in providing students with skills needed for today's workforce, and leading teachers in the creation of non-traditional environments that increase accessibility for all students. Hence, there was a positive association between the school heads' technology proficiency and instructional supervision.

Table 10
Relationship Between Technology Proficiency and Instructional Supervision

Leadership & Vision	rho	p-value	Interpretation
Framing the school goals	.811**	0.000	Highly Significant
Communicating the school goals	.777**	0.000	Highly Significant
Supervising and evaluating instruction	.718**	0.000	Highly Significant
Coordinating the curriculum	.734**	0.000	Highly Significant
Monitoring student progress	.738**	0.000	Highly Significant
Protecting instructional time	.728**	0.000	Highly Significant
Maintaining high visibility	.687**	0.000	Highly Significant
Providing incentives for teachers	.702**	0.000	Highly Significant
Promoting professional development	.733**	0.000	Highly Significant
Providing incentives for learning	.758**	0.000	Highly Significant
Teaching and Learning			
Framing the school goals	.806**	0.000	Highly Significant
Communicating the school goals	.776**	0.000	Highly Significant
Supervising and evaluating instruction	.746**	0.000	Highly Significant

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Coordinating the curriculum	.766**	0.000	Highly Significant
Monitoring student progress	.759**	0.000	Highly Significant
Protecting instructional time	.761**	0.000	Highly Significant
Maintaining high visibility	.732**	0.000	Highly Significant
Providing incentives for teachers	.726**	0.000	Highly Significant
Promoting professional development	.755**	0.000	Highly Significant
Providing incentives for learning	.753**	0.000	Highly Significant
Productivity & Professional Practice			
Framing the school goals	.787**	0.000	Highly Significant
Communicating the school goals	.761**	0.000	Highly Significant
Supervising and evaluating instruction	.666**	0.000	Highly Significant
Coordinating the curriculum	.754**	0.000	Highly Significant
Monitoring student progress	.752**	0.000	Highly Significant
Protecting instructional time	.739**	0.000	Highly Significant
Maintaining high visibility	.680**	0.000	Highly Significant
Providing incentives for teachers	.694**	0.000	Highly Significant
Promoting professional development	.762**	0.000	Highly Significant
Providing incentives for learning	.732**	0.000	Highly Significant
Support, Management & Operations			
Framing the school goals	.792**	0.000	Highly Significant
Communicating the school goals	.748**	0.000	Highly Significant
Supervising and evaluating instruction	.743**	0.000	Highly Significant
Coordinating the curriculum	.778**	0.000	Highly Significant
Monitoring student progress	.771**	0.000	Highly Significant
Protecting instructional time	.766**	0.000	Highly Significant
Maintaining high visibility	.726**	0.000	Highly Significant
Providing incentives for teachers	.756**	0.000	Highly Significant
Promoting professional development	.756**	0.000	Highly Significant
Providing incentives for learning	.762**	0.000	Highly Significant
Assessment & Evaluation			
Framing the school goals	.790**	0.000	Highly Significant
Communicating the school goals	.756**	0.000	Highly Significant
Supervising and evaluating instruction	.723**	0.000	Highly Significant
Coordinating the curriculum	.785**	0.000	Highly Significant
Monitoring student progress	.770**	0.000	Highly Significant
Protecting instructional time	.750**	0.000	Highly Significant
Maintaining high visibility	.700**	0.000	Highly Significant
Providing incentives for teachers	.721**	0.000	Highly Significant
Promoting professional development	.750**	0.000	Highly Significant
Providing incentives for learning	.771**	0.000	Highly Significant
Social, Legal & Ethical Issues			
Framing the school goals	.809**	0.000	Highly Significant
Communicating the school goals	.793**	0.000	Highly Significant
Supervising and evaluating instruction	.766**	0.000	Highly Significant
Coordinating the curriculum	.810**	0.000	Highly Significant
Monitoring student progress	.810**	0.000	Highly Significant
Protecting instructional time	.815**	0.000	Highly Significant
Maintaining high visibility	.734**	0.000	Highly Significant
Providing incentives for teachers	.769**	0.000	Highly Significant
Promoting professional development	.787**	0.000	Highly Significant
Providing incentives for learning	.797**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

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Table 11 reveals that the enhanced management development plan for DepEd school heads was proposed to address leadership self-efficacy in terms of the last two indicators with lowest weighted mean such as starting and leading change processes in groups (3.39) and gaining consensus of group members (3.61). For technology proficiency, it highlighted the three indicators with the lowest weighted means as regards teaching and learning (3.63), support management and operations (3.62) and assessment and evaluation (3.63). For instructional supervision, the indicators with least weight average were protecting instructional time (3.61), maintaining high visibility (3.56) and providing incentives for teachers (3.60).

School heads are expected to perform 70% instructional leadership and 30% school management and operations specifically in DepEd. To give emphasis on their managerial functions relative to leadership self-efficacy, technology proficiency and instructional supervision, the researcher proposed the enhanced management development plan anchored to DepEd planning tool indicating the three significant constructs. This plan includes Key Result Areas (KRAs), strategies, performance or success indicators, persons or offices involved, resources needed and time frame.

For the KRAs, the researcher adapted the indicators included in the survey questionnaire to establish congruency between the findings of the study and the target plan of action for school heads' leadership self-efficacy, technology proficiency and instructional supervision. The strategies indicated in the proposed plan followed the SMART rule such as Specific, Measurable, Attainable, Reliable and Time bounded. More importantly, these respond to the needs, issues and concerns among the teachers and students for effective teaching and quality learning. Aside from this, the researcher considered the common practices of school heads in accordance with their duties and responsibilities in terms of the three variables. In this way, they have sufficient knowledge and skill in how to properly implement the plan without consuming too much time to study its content. Thus, this will just serve as their guiding tool on what to focus per KRA for a particular period of time.

For performance or success indicator, it is expected that the school heads focus on the main goal per KRA and the corresponding target output. The results should be quantitative for further analysis, interpretation, and conclusion to determine the actual based on the target output and most specially to assess the status of accomplishments and backlogs to be used in the next cycle of management development plan.

Meanwhile, the people involved in the educative process are expected to be engaged to make this proposed enhanced management development plan possible. The school heads cannot attain the target goal without the support and participation of the school personnel, internal and external stakeholders and school partners.

Lastly, this plan is expected to be implemented throughout the entire school year with specified time frame per KRA wherein the four stages should be undertaken such as Plan, Act, Monitor and Evaluate phases.

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Table 11
A Proposed Enhanced Management Development Plan for DepEd School Heads

Key Result Areas	Strategies	Performance / Success Indicators	Persons/ Offices Involved	Resources Needed (Financial, Human or Technological Resources)	Time Frame
School Head's Leadership Self-Efficacy (2 out of 6 indicators)					
Starting and Leading Change Processes in Groups	1) Identify the accomplishment status and backlogs, target vs actual 2) Identify the Priority Improvement Areas (PIAs) through Root Cause Analysis (RCA) 3) Propose SMART Programs, Projects and Activities (PPAs) in response to PIAs -Specific -Measurable -Attainable -Reliable -Time Bound 4) Conduct of feasibility study for the planned PPAs 5) Conduct series of FGDs, meetings, conferences, and assemblies to start and lead change processes in the school	1) 90% of accomplishment status and backlogs were identified and closed. 2.) Comparative analysis between target and actual result was conducted. 3) Specific and controllable PIAs, bottlenecks, issues, lags and goals were identified. 3) 100% of the PPAs were indicated in the SIP/AIP/ WFP/APP. 4) Quarterly/ Annual report on monitored/ evaluated PPAs with MoVs were reflected in BEMEF. 5) Minutes / Narrative reports with attendance and activities in pictures were accomplished for the conducted FGDs, meetings, conferences, and assemblies.	School Head School Planning and Appraisal Team Teachers School Parent-Teachers Association (SPTA) School Partners and Stakeholders	Financial, Human and Technological Resources	3-4 Weeks
Gaining Consensus of Group Members	1) Conduct FGDs, forum, conference and assembly with the teachers, parents and school partners on school plans, issues, and concerns 2) Tap school planning and appraisal team, committees on PPAs planning, implementation, monitoring, and evaluation	1) Minutes / Narrative reports with attendance and activities in pictures were accomplished for the conducted FGDs, forum, conference, and assembly. 2) 100% of the target participants showed full support in their best ways and means. 3) 100% of the issues and concerns stated in the minutes were	School Head School Committees Teachers SPTA Officers Parents School Partners and Stakeholders	Financial, Human and Technological Resources	Year Round

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	3) Communicate regularly the minutes of the meeting and other school-related agenda with the school body for openness, transparency and accountability 4) Present to the school body the school report on financial-related matter and status of school PPAs highlighting the accomplishment, backlogs, bottlenecks, lags, issues, and intervention. 5) Provide MOVs for gaining the consensus of the body on PPAs conducted e.g. resolution, MOU/MOA, narrative report, attendance, and activities in pictures	properly communicated to the concern and all persons involved in the quarterly/annual assembly. 4) SOSA/SMEPA was held for school financial report and status of school PPAs for transparency and accountability. 5) 100% of the expected MOVs on PPAs implementation as regards gaining consensus of the stakeholders were harvested.			
School Head's Technology Proficiency (3 out of 6 indicators)					
Teaching and Learning	1) Conduct INSET/SLAC on technology-based application among teachers with IT experts 2) Strengthen technology-based research and innovations 3) Integrate technology in the teaching-learning process 4) Tap school partners for resources 5) Provide and utilize audio-visual room and computer laboratory for instruction	1) Technology-based application was tackled in the SLAC/ INSET. 2) 100% of the teachers conducted technology-based research and innovations 3) ICT Integration was indicated in the teachers' DLL and facilitation of classes. 4) Improved financial, human, and technological resources by at least 5% compared with the previous school year 5) Functional audio-visual room and computer laboratory were put up for technology-based instruction	School Head IT experts School Planning and Appraisal Team Teachers School Parent-Teachers Association (SPTA) School Partners and Stakeholders	Financial, Human and Technological Resources	Year Round
Support, Management and Operations	1) Coordinate with school personnel and tap school partners through offline and online platforms 2) Utilize technology for networking, linkages and	1) Increased by at least 2% support and participation of school partners in school PPAs implementation 2) 100% utilization of technology for	School Head IT experts Teachers School Parent-Teachers Association (SPTA)	Financial, Human and Technological Resources	Year Round

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	tapping school partners for PPAs support 3) Utilize technology for oral and written communication and day-to-day tasks 4) Utilize technology for advocacy and awareness campaign on best practices and for benchmarking purpose 5) Utilize technology for reporting, information dissemination and transparency purpose	networking, linkages and tapping school partners 3) Quick, transparent and responsive delivery of service for oral and written communication and day-to-day tasks 4) 100% utilization of FB page and other online platforms to promote advocacy and awareness campaign 5) 100% utilization of various technology applications for reporting, information dissemination and transparency purpose	School Partners and Stakeholders		
Assessment and Evaluation	1) Conduct SLAC and INSET on assessment and evaluation using technology-based application 2) Create technology-based management application for quick access on pupils' record 3) Assess and evaluate students' learning and teachers' performance using technology-based assessment and evaluation tool 4) Conduct online survey for gathering data 5) Provide technology-based system for feedback mechanism, assessment, and evaluation	1) Assessment and evaluation were highlighted in the SLAC/ INSET. 2) 100% utilization of technology-based management application for quick access on pupils' record 3) 100% utilization of technology-based assessment and evaluation tool for assessment and evaluation. 4) 90% of the target data was gathered through online survey. 5) Quarterly and annual giving of feedback, assessment and evaluation were properly conducted through technology-based system.	School Head IT experts Teachers School Parent-Teachers Association (SPTA) School Partners and Stakeholders	Human and Technological Resources	Year Round
School Head's Instructional Supervision (3 out of 10 indicators)					
Protecting Instructional Time	1) Limit interruptions of instructional time by public address announcements. 2) Ensure that students are not called to the office during instructional time. 3) Ensure that late and truant students be responsive with	1) Communicated school and DepEd policies in varied offline and online platforms relative to instructional time interruptions 2) Provided and posted class and teachers' program to ensure the quality time for the delivery of instruction	School Head School Planning Team Teachers Learners Parents/ SPTA Schools Partners and Stakeholders	Human and Technological Resources	Year Round

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	consequences for missing instructional time. 4) Encourage teachers to use instructional time for new skills and innovations 5) Prevent unnecessary activities that may affect quality instructional time.	3) Accomplished Learners' attendance and absences with corresponding minutes on parent-teacher conference with the tardy and truant students 4) Instructional time was clearly indicated on prepared daily lesson log/plan 5) Disseminated school and DepEd policy on the avoidance of co- and extra-curricular activities			
Maintaining High Visibility	1) Have enough time to communicate informally with students and teachers during free time. 2) Respond to the needs, wants, issues and concerns of the teachers and students through homeroom visitation 3) Join in various extra- and co-curricular activities. 4) Handle classes for an unavailable teacher until he/she arrives. 5) Conduct remedial instruction or enrichment activity to some students when needed	1) Recorded and written shared thoughts/ experiences/ views from the conducted simple and informal dialogue/ conversation with teachers and students 2) Regular classroom visitation for collaboration of ideas and feedback giving was conducted. 3) Increased participation/ involvement in extra and co-curricular activities by at least 1% for strengthening partnership and high visibility 4) Teachers' logbook with overtime and undertime was regularly monitored. 5) Narrative report, attendance and activities in pictures on the conducted tutorial / direct instruction.	School Head Teachers Learners Volunteers for Remedial Teaching and Enrichment Activities	Human and Technological Resources	Year Round
Providing Incentives for Teachers	1) Support the outstanding performance of teachers in staff meetings, newsletters, and/or memos. 2) Commend teachers' efforts or performance. privately 3) Acknowledge all teachers invaluable performance both simple	1) Regular monthly staff meeting and other emergency meetings and written communication e.g. school memo were properly conducted. 2) Rating sheets and observation notes were accomplished and communicated with the concern.	School Head Teachers DepEd Authorities Potential Partners	Financial. Human and Technological Resources	Year Round

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	and extraordinary efforts and services 4) Give awards and recognition to teachers with exemplary performance and commendable attitude in the service 5) Pursue the professional growth opportunities of outstanding teachers as a form of rewards and incentives	3) School memoranda and incentives were provided to acknowledge teachers' exceptional performance, 4) Improved the system on rewards and incentives through staff recognition on Teachers' Day, Stakeholders' Assembly and Other Award-Giving Body. 5) 100% of the experienced and newly-appointed teachers were included in the school PIAs for career progression and professional growth opportunities.			

CONCLUSIONS

The study sought to determine the relationship among leadership self-efficacy, technology proficiency and instructional supervision of DepEd school heads in Batangas province. The following conclusions are drawn from the results of the study.

1. Majority of the respondents are female and belong to proficient teachers or known as Teachers I to III. Only few graduated with doctorate degree, aged below 30 years old, and with four years and below length of service.

2. School heads' leadership self-efficacy was determined in terms of starting and leading change processes in groups, choosing effective followers and delegating responsibilities, building, and managing interpersonal relationships within the group, showing self-awareness and self-confidence, motivating people, gaining consensus of group members. The respondents strongly agreed in all indicators except from starting and leading change processes in groups which rated the least. However, it still strengthens its significance in the school heads' leadership self-efficacy as the teachers agreed with this indicator.

3. School heads' technology proficiency was determined as regards leadership and vision, teaching and learning, productivity and professional practice, support, management and operations, assessment and evaluation, and social, legal, and ethical issues. The results denote that the teachers strongly agreed with all indicators.

4. School heads' instructional supervision was determined in terms of framing the school goals, communicating the school goals, supervising, and evaluating instruction, coordinating the curriculum, monitoring student progress, protecting instructional time, maintaining high visibility, providing incentives for teachers, promoting professional development, providing incentives for learning. The results signify that the teachers strongly agreed in all indicators.

5. There was no significant difference on the leadership self-efficacy, technology proficiency and instructional supervision when grouped according to profile except from technology proficiency as regards productivity and professional practice when grouped according to sex; teaching and learning, assessment and evaluation and social, legal and ethical issues when grouped according to educational attainment; and teaching and learning when grouped according to length of service; and instructional supervision in terms of framing the school goals, communicating the school goals, protecting instructional time, providing incentives for teachers and providing incentives for learning when grouped according to position of teachers, Generally, the responses do not differ significantly and the responses are the same across the respondents' profile.

6. There exists a highly significant relationship across the three major variables, that is, the better the leadership self-efficacy, the more proficient on technology and the better the instructional supervision is.

7. An enhanced management development plan was proposed for DepEd school heads to address leadership self-efficacy, technology proficiency and instructional supervision.

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RECOMMENDATIONS

The following recommendations are drawn from the derived conclusions.

1. DepEd school heads may prioritize teachers in their respective workplace who are aged below 30 years old, with four years and below length of service, belong to proficient teachers and not yet taking graduate studies for their leadership self-efficacy, technology proficiency and instructional supervision to improve teachers' competencies highlighted in the RPMS-PPST.

2. Bureau of Human Resource and Development Office (BHROD) may consider the leadership self-efficacy as a qualification indicator for the recruitment, selection, appointment, and professional development of DepEd school heads since it has implications in the development of teachers' self-efficacy and effectiveness in the organizations for organizational goal as regards students' learning.

3. The responses on the leadership self-efficacy do not differ significantly and the responses are the same across the teachers' profile in terms of age, sex, educational attainment, length of service and position. However, recommendation for future research is warranted since there are studies that were able to establish a significant correlation between some profile indicators to school heads' leadership efficacy.

4. DepEd Information Technology Officers (ITO) may capacitate the school heads with the necessary technology proficiency skills and knowledge to effectively implement Information and Communication Technology (ICT) programs and projects in their respective schools.

5. Curriculum and Instruction Division (CID) and Learning and Development (L&D) offices may consider school heads' technology education and technology-related trainings in their action plans and training proposals for the improvement of the school heads' technology proficiency skills necessary for the delivery of services and conduct of technical assistance among teachers particularly in the implementation of learning contingency plan prior to different learning modalities and unexpected changes brought by natural disasters and occurrence of pandemic situations.

6. DepEd school heads may strengthen gender development and equality among the teachers, pursue teachers' graduate studies in the school Priority Improvement Areas (PIAs) and focus on the newly-hired and beginning teachers for instructional supervision, technical assistance, coaching and mentoring but ensure that no teachers with longer length of service will be left behind, but rather, may be given supplementary training to adapt in the 21st Century teaching competencies.

7. DepEd school heads may create school environments in which they can develop open communication with teachers to increase teachers' self-efficacy beliefs, provide support for teachers in the technology-based instruction and pursue professional development by exhibiting instructional leadership behaviors.

8. Intended output on Educational Management Development Plan may be utilized for implementation, monitoring and evaluation to determine its effectiveness on the school heads' leadership self-efficacy, technology proficiency and instructional supervision.

9. Future researchers may conduct similar studies to determine the significant predictors of school heads' leadership self-efficacy, technology proficiency and instructional supervision.

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