

Innovation Management and School-Based Practices of School Heads in Relation to Teachers' Performance

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Abstract:

This descriptive research aims to determine the level of innovation management and school-based practices of school heads in relation to the teachers' performance. The data were collected from 127 public school teachers from one of the districts in Central Visayas, Philippines using a self-made questionnaire that have undergone validity and reliability test. The results show a very high level of innovation management of school heads in the areas of strategic innovation ($m=4.57$), behavioral innovation ($m=4.59$), and computational innovation ($m=4.51$). They have very high level of school-based practices in classroom management ($m=4.69$) and assessment and evaluation ($m=4.54$), while high level in curriculum and instruction ($m=4.47$). Teachers also demonstrated a very satisfactory performance during the school year 2022-2023 regardless of profile. Further, there is a significant difference in strategic innovation of school heads in terms of age ($p=0.040$), behavioral innovation in terms of length of service ($p=0.041$) and Computational Innovation in terms of age ($p=0.037$) and length of service ($p=0.017$). There is also significant difference in their school-based practices in classroom management in terms of length of service ($p=0.022$) and Assessment and Evaluation in terms of age ($p=0.039$). While no significant difference is observed in teachers' performance, and there is no significant relationship in the level of innovation management and the school-based practices of school heads and the level of teachers' performance ($p=0.275, 0.239$). The findings assert school heads to develop innovation management and school-based practices that will improve the teaching and schools' performance.

Keywords: innovation management, school-based practices, teachers' performance

Introduction:

School heads had essential functions in order to bring success to the educational institutions (Divinagracia, 2022). In the Philippines, they are the key leaders who provide appropriate actions to achieve the mission, vision, core values, and objectives of the Department of Education. Under Republic Act 9155 or the Governance Basic Education Act of 2001 the school heads are given authority, responsibility, and full accountability to run all affairs of the school. Hence, the attainment of learning outcomes as well as improved teaching performance depend on their innovative management and school-based practices.

According to Nonye et al. (2019) innovation management and school-based practices are essential to achieve success in terms of goal attainment and quality teaching. They asserted that these two functions are essential so that teachers could understand fully their duties and roles. Innovation management is significant in keeping schools adaptive to current trends and technology applications. It also helps schools improve teaching and learning through innovative strategies, behavioral changes, and computer advancement. Likely, school-based practices set the direction of the system. This gives the school heads the full autonomy to make decisions that are significant to the goals, policies, and objectives, as well as the to the areas of curriculum and instruction, classroom management, and assessment and evaluation.

In a recent directive of one of the districts in Central Visayas, Philippines, school heads were reminded of their major tasks as agents of innovation and management in school. In addition to this is to improve their school-based practices to ensure that each school can achieve the intermediate outcomes and educational targets. However, during the conduct of the needs assessment to school heads as part of the district's learning and development strategic plan, it was confirmed that 87% of them lack the skills in innovation management, and that they need to be trained to

develop competence on these areas. Also, in the current school updates, 80 percent of the schools' level in the school-based management (SBM) falls under beginning and developing levels.

While these gaps could technically affect the schools' performance, there is a little literature and studies which could confirm that the aforementioned variables can affect teachers' performance as well. Being a district supervisor, the researcher would like to assess whether the innovation management and the school-based practices of school heads had influence on how teachers performed during the School Year 2022-2023. The result of the study will be beneficial in proposing a learning and development design (LDD) in order to improve the school heads competence and teachers' performance.

Current State of Knowledge

Sitthisomjin et al. (2020) cited that innovation management factors consist of transformational leadership, resource management, organizational learning, and school innovation can affect the school performance. They stressed the innovation management in high performing schools and their transformational leadership can contribute to the school's general academic outcomes. It was also emphasized that resource management conducted by school leaders helped increase learning and innovation. Thus, innovation management is strongly influenced by school heads leadership practices.

Sarafranka and Sikyr (2028) also agree of the fundamental relationship between innovation management and organizational performance, that is also applicable the primary and secondary school. They stressed that the general conclusion on the vital relationship innovation management and the organizational output is vital to the society. Hence, school managers who want to achieve excellent performance of their schools, must pay attention to management of all employees. This includes teaching and non-teaching staff because their abilities, motivation and performance determine the success of the schools.

Additionally, the school head must take charge being with the responsibility of strategically managing schools and material resources available to achieve the organizational goals. As the person at the helm of affairs in the school, school heads occupy a unique position where they exercise influence on the innovation of education, interpret policies, execute instructional programs, see staff development, and ensure adequate and proper management of the school (Francis & Oluwatoyin).

In the same manner, strategic innovation management can also bring abundance of advantages to the organization (Vikaraman, et al., 2017). Building and investing on human resources in terms of their skills, education, health, and training are significant needs to bring long term success to the organization. It is a two way process because when employees develop and upskill, the organization will also grow along. Some organizational practices of strategic management include knowledge sharing, professional learning community, mentoring and coaching, in-house trainings or workshops, peer reviews, lesson studies, on job observations, and action research.

Furthermore, Fuad et al. (2022) mentioned that most of the education system in the 21st century have put emphasis on innovation management as a tool to bring change to the traditional educational system. The desire for quality curriculum and to produce learners with 21st-century competency skills have made innovation the core of the educational context. Because of these, a culture that supports innovation must be developed and encouraged. There should exist sociocultural norms and innovation culture of individual personality, interaction, collaboration and teamwork, support, as well as leadership.

School-Based Practices. According to Riyadi, et al. (2023) one of the most frequently used strategies in school management is the school-based management (SBM) practices. For some, the school-based practices manifested by school heads help schools promote better and sufficient education to learners. With the implementation of school practices, opportunities become realistic, and school heads, teachers, and the learners become active agents of change and innovations. It can also bring improvement to schools, answer to issues of curriculum, managerial learning which later grow into a series of activities in order to raise the standard and instruction of the educational institutions.

A similar idea from Ela, et al. (2023) which mentioned that school-based management practices can carry out effective and efficient curriculum management and learning process. These practices match existing resources at school by encouraging active stakeholders' participation. It can also provide broad opportunities for the decentralization of education. The effectiveness of schoolbased practices lies in the system consisting of input-output process. It can be assessed through close monitoring and evaluation of its implementation.

Meanwhile, Hardiansyah (2022) mentioned that the main objective of school-based practices is to attain efficiency, quality, and equity in education. Efficiency can be increased through flexible management of existing resources, community participation, and simplification of the bureaucracy. Nonetheless, quality can be achieved through parents' involvement, flexibility in management, and increased teacher professionalism. Moreover, equitable education is

reflected in the growth of the community participation for those who are able and caring, while those less fortunate will be taken care of by the government.

On the other hand, school heads become effective when they have clear expectations and proper timelines in accomplishing their task. It was already revealed that when they demonstrate readiness as instructional leaders, the quality of instructional practices in the classroom increases. Certainly, they need clear expectations to meet the requirements of their role as mentors and measurement tools to evaluate their progress. Thus, provide them with concrete feedback to be used for next steps (Hulbos et al., 2016).

Theoretical Framework

This study is anchored on three (3) theories: the Political Theory of Educational Management by Stephen J. Ball (1987), the Practice Theory by Bourdieu (1972) and the Theory of Performance (ToP) by Elger (2007).

Political Theory of Educational Management assumes that educational policies and decisions in the institutions stem from a complicated process of bargaining and negotiation over the goals of subunits and specific policy objectives are pursued by interest groups through formation of alliances (Bush, 2014). In addition, conflict is a natural phenomenon based on this model and power accrues to coalitions with higher level of dominance instead of being the preserve of the formal leader in the organization.

This theory is largely applicable to this study as it talks of forged alliances among school leaders and teachers, as well as transferring significant decision-making authority from state and district offices to individual schools. This theory is chosen because it provides a concrete support that school heads' innovation management and school-based practices are important to the performance of teachers.

Practice Theory seeks to understand and explain the social and cultural world by analyzing the repetitive practices in daily life. Practice Theory is generally recognized as a way to account for social life through the synthesis of societal structures and a person's individual dispositions. Bourdieu's basic outline for a theory of practice involves three major conceptual categories—habitus, field, and capital—as well as concepts of struggle and strategy, which evoke intentionality on the part of individuals, families, and social groups as they seek to manipulate their position in various social fields.

As linked in the present study, Practice Theory explains how innovations and practices in school are implemented by repetitive actions to produce a more realistic goal that will contribute to achieving the final intended impact. A Practice Theory can be used for strategic planning in school projects to identify the current situation (in terms of needs and opportunities of the teachers) to achieve quality results. This can help to establish a common understanding of the strategies to be used to achieve the goals of the organization.

Corollary to the two (2) theories, is the Theory of Performance developed by Elger in 2007. The theory emphasizes fundamental concepts to form a framework that can be used to explain performance as well as performance improvements: context, level of knowledge, level of skills, level of identity, personal factors and fixed factors (Ikpi et al., 2014). In order for a teacher to improve his performance, he must be equipped by all these concepts.

Teacher's performance is measured using numerical data based on the ratings on key result areas. Improving one's performance is empowering oneself to learn and grow; thus, creating results that make a difference. Any individual is capable of extraordinary accomplishments which are produced from high-level performance. As a teacher advances his levels of performance, he is able to produce deeper levels of learning, improved levels of skill development, and more connection with the discipline for larger classes while spending less time doing this.

Objectives of the Study

This study aimed to determine the levels of innovation management and school-based practices of school heads in relation to teachers' performance in one of the districts of a large-sized schools division in Central Philippines for the school year 2022-2023.

Methodology:

This section presents the discussion of the different methodologies used in the study. It includes the research design, environment, respondents, instruments used, validity and reliability processes, the data gathering procedures, as well as the analytical schemes and the statistical tools.

Research Design

This study used the descriptive research design to assess the levels of innovation management skills and school-based practices of school heads in relation to teachers' performance. This design engages in fact-finding procedures,

particularly in conditions and relationships that exist, practices that prevail, beliefs that are held, processes that are going on, effects that are being felt, or developing trends.

McCombes (2019) explained that descriptive research is best to use when the goal is to describe a population, situation, or phenomenon accurately and systematically. It can answer what, when, where, who and how questions, but not the questions on the why. It is appropriate for studies which aims to know the present situation and determine the prevailing issues and to make an adequate and accurate interpretation of the data.

This design is fit for use considering that this study aims to assess the levels of innovation management and school-based practices of school heads in relation to teachers' performance. The study requires an in-depth investigation of the variables based on the present situation, so that an accurate and systematic result and answers to the specific problems can be determined. From these conditions, the researcher considers the descriptive research design the most appropriate tool.

Respondents of the Study

The study's respondents are the sample of 127 teachers from a total population of 188. The sample was determined using the Cochran formula. The Cochran formula is used to calculate an ideal sample size to obtain the desired level of precision and confidence, and the desired proportion of the attributes present in the population. According to Briggs (2020), this test is appropriate in a situation with large populations.

The sample of 188 teachers was further determined using stratified random sampling. Stratified random sampling is one of four probability sampling techniques where the total population is divided into homogenous groups (strata) to complete the sampling process (Kaplan, 2014). Using the proportion ratio of the population the number of teachers per stratum/section was determined and were finally selected through simple random sampling using the lottery method.

Finally, the researcher randomly selected the respondents from each level using the lottery technique. Table 1 shows the distribution of respondents.

Table 1
Distribution of the Respondents

Schools	Population (N)	Sample (n)	Percentage (%)
A	28	19	14.96
B	5	3	2.36
C	7	5	3.94
D	7	5	3.94
E	8	5	3.94
F	8	5	3.94
G	24	16	12.59
H	7	5	3.95
I	8	5	3.94
J	8	5	3.94
K	6	4	3.14
L	7	5	3.94
M	7	5	3.94
N	58	40	31.49
Total	188	127	100.00

Data Gathering Instrument

A researcher-made survey questionnaire was used in gathering the data to determine the level of innovation management skills and the school-based practices of school heads. The questionnaire is divided into three parts, wherein part I contains the profile of respondents in terms of age, highest educational attainment, and length of service.

Part II of the instrument are items for innovation management of school heads in the areas of strategic innovation, behavioral innovation, and computational innovation. On the other hand, part III is for school-based practices in the areas of curriculum and instruction, classroom management, and assessment and evaluation. Each

area has seven (7) statements where respondents will score using the 5-point Likert scale with the following descriptions: 5-Very High Level, 4-High Level, 3-Moderate Level, 2-Low Level and 1-Very Low Level.

To obtain the data on teachers' performance, the IPCRF ratings for School Year 2022–2023 will be used. It will be interpreted using the Department of Education's standard point system where: outstanding (4.50–5.00), very satisfactory (3.50–4.49), satisfactory (2.50–3.49), unsatisfactory (1.50–2.49), and poor (<1.49).

Validity

Validity is defined as the extent to which a concept is accurately measured in a quantitative study. Research validity in surveys relates to how the survey measures the right elements that need to be measured. In simple terms, validity refers to how well an instrument measures what it is intended to measure (Heale & Twycross, 2015). The research instrument was subjected to face validation where five experts will be asked whether the instrument measures the concept intended. Validator 1 is a District Supervisor who holds a Doctor of Education in Administration and Supervision degree who is an expert in school-based management and operations as she is conducting school validations in different districts. Validator 2 is a school head who holds a Doctor of Philosophy in Educational Management degree who developed expertise in leadership and personnel management from attending various leadership trainings, seminars, and workshops. Validator 3 is a Public School District Supervisor with a Doctor in Developmental Education degree who has been commended with exemplary performance in the field of school-based management. Validator 4 is a school principal who graduated Master of Arts in Education major in Administration and Supervision who is a member of the district evaluation team and a pilot school head in school-based practices implementation. Validator 5 is an educator who graduated Doctor of Philosophy in Educational Management who is an advocate of personnel management and school-based practices and was a recipient of an outstanding award in her former district.

As to the appropriateness of the items in the questionnaire, each validator was requested to rate the instrument using the criteria set forth by Carter V. Good and Douglas E. Scates. The validation result of the instrument was 4.69 or Excellent Validity.

Reliability

According to Bueno (2016), reliability refers to the consistency of the scores or answers from one administration of an instrument to another and one set of items to another.

The researcher used Cronbach's alpha to test the reliability of the questionnaire. In addition, Cronbach's alpha indicates the average correlation among all the items that make up the scale (Abad et al., 2015). It is a measure of internal consistency, or how closely related a set of items are as a group and is considered a measure of scale reliability (Glen, 2014). A "high" value for alpha does not imply a unidimensional measure. The reliability coefficient of 0.70–1.0 is considered acceptable in most research situations.

The reliability test was administered to 30 teachers in another district of the same municipality where the study will be conducted. The reliability index of the questionnaire is 0.965 and 0.975 interpreted as Excellent Reliability.

Data Gathering Procedure

A letter of intent stating the purpose of the study was sent for approval by the office of the School's Division Superintendent. After it was approved, the research established the validity and reliability of the research instrument, then proceeded to distribute the questionnaires to the research respondents. The researcher assured that the data gathered were treated with utmost confidentiality and anonymity and followed ethical research standards.

Research Ethics Protocol

The research procedure is in accordance with R.A. 10173 otherwise known as Data Privacy Act of 2012 which ensures that all private and confidential information provided by the respondents will be protected. This will be conducted in accordance with ethical principles of health and anonymity, confidentiality, informed consent and risk of harm. The respondents were not asked to write their names to protect their identity and establish anonymity. The data collected were kept private until the completion of the study for which it will be deleted to avoid unauthorized access.

Analytical Schemes

Following the objective of the study and the statement of the problem, the data that the researcher gathered will be subjected to tabulation, statistical analysis, and interpretation. Furthermore, the data obtained will be analyzed using descriptive, comparative, and relational analytical schemes.

Objective No. 1 used the descriptive analytical scheme to determine the profile of the respondents in terms of age, highest educational attainment, and length of service.

Objective No. 2 employed descriptive analytical scheme to measure the level of innovation management of school heads in the areas of strategic innovation, behavioral innovation, and computational innovation management.

Objective No. 3 still employed descriptive analytical scheme to identify the level of the school-based practices of school heads in terms of curriculum and instruction, classroom management, and assessment and evaluation.

Objective No. 4 likewise used descriptive analytical scheme to determine the level of personnel management skills of school heads as perceived by teachers when they grouped and compared according to the aforementioned variables.

Objective No. 5 also employed descriptive analytical scheme to seek the level of school-based practices of school heads as perceived by teachers when they are grouped and compared according to the aforementioned variables.

Objective No. 6 similarly utilized descriptive analytical to discover the level of teachers' performance.

Objective No. 7 employed comparative analytical scheme to examine the significant difference in the level of innovation management of school heads as perceived by teachers when they are grouped according to the aforementioned variables.

Objective No. 8 also used a comparative analytical scheme find the significant difference in the level of school-based practices school heads as perceived by teachers when they are grouped according to the aforementioned variables.

Objective No. 9 likely utilized comparative analytical scheme to determine the significant difference in the level of teachers' work performance.

Objective No. 10 employed relational analytical scheme to uncover the significant relationship between the level of innovation management of school heads and the level of teachers' performance.

Objective No. 11 likewise used a relational analytical scheme to identify the significant relationship between the level of school-based practices of school heads and the level of teachers' performance.

Results and Discussion:

This section deals with the presentation, analysis, and interpretation of data. It provides an in-depth discussion of the statistical results and uncover implications of significant findings in relation to the objectives of the study.

Profile of the Respondents in Terms of Variables Age, Highest Educational Attainment, and Length of Service

The profile of respondents brings comparison on the variables which are significant in determining the innovation management and school-based practices of school heads. The variables qualified for interpretation are age, highest educational attainment, and length of service.

Table 2
Profile of the Respondents

Variables	Categories	Frequency	Percentage
Age	Younger (below 42 years old)	61	48.00
	Older (42 years old and above)	66	52.00
Highest Educational Attainment	Lower (Bachelor's Degree)	94	74.00
	Higher (Master's/Doctoral Degree)	33	26.00
Length of Service	Shorter (below 13 years)	64	50.40
	Longer (13 years and above)	63	49.60
Total		127	100.00

The table shows that there is no huge difference in the number of younger and older teachers in the district. It reflects that 61 or 48 percent are below 42 years old while 66 or 52 percent are above the median age. It implies that there is a balance of older and younger teachers in the field. It also infers that the district has a good mixture of personnel who can give support to each other. Older teachers can be good mentors while younger teachers can provide the technical support. This confirms the study of Argoncillo (2022) who also find out there is no huge disparity in the number of younger and older teachers. According to her, a balance of younger and older teachers is advantageous because both categories have skills beneficial for each other.

In addition, the table reflects that there is a huge difference in the frequency of teachers according to highest educational attainment. As observed, 94 or 74 percent are still holding bachelor's degree while only 33 or 26 percent have masters' or doctorate degree. This implies that majority of the teachers have lower educational qualifications which could hinder them to seek for immediate promotion. This result affirms the findings of Butalid (2020) who revealed that many teachers in the field are still holding bachelor's degree. He asserted that teachers should enroll for further studies because teaching position and educational qualification are somehow interrelated.

Furthermore, it can be seen that there is no huge disparity in the number of teachers in terms of length of service. As shown, 64 or 50.40 have below 13 years of experience while 63 or 49.60 percent have more than 13 years. This implies that there is a mixture of new and experienced teacher within the district. It could further connote a balance in the instructional competence because teachers who have been teaching longer have already developed their art of teaching while those who have been new in the field can be mentored by their longer counterparts. This result confirms the study of Divinagracia (2022) who also found out that there is not much disparity in the number of teachers in one of the districts in a large division of Central Visayas. In his study he however mentioned that teachers do manifest improvement within a period of 4 to 5 years. Nonetheless, there is a possibility that the less experienced teachers can improve faster than their experienced counterparts.

Level of Innovation Management of School Heads According to Strategic Innovation Management, Behavioral Innovation Management, and Computational Innovation Management

The succeeding tables below presents the level of innovation management of school heads in terms of strategic innovation management, behavioral innovation management, and computational innovation management.

Table 3

Level of Innovation Management of School Heads According to Strategic Innovation Management

Items	Mean	Interpretation
The school heads...		
design projects and programs to achieve school's mission and vision in the School Improvement Plan.	4.47	High Level
display good leadership practices which creates positive impact to the school culture, teachers, and learners.	4.61	Very High Level
make professional development plans for teachers' advancement and professional growth including promotion.	4.46	High Level
create win-win solutions to the schools' concerns, issues, gaps and problems (CIGPs) through creative and innovative thinking strategies.	4.43	High Level
adopt modern management practices such as ICT based instructions to the teaching-learning process.	4.70	Very High Level
establish strong partnership with internal and external stakeholders.	4.66	Very High Level
create income generating projects to boost school's financial resources.	4.65	Very High Level
Overall Mean	4.57	Very High Level

Table 3 depicts a very high level of innovation management of school heads in terms of strategic innovation with an overall mean of 4.57. This infers that the school heads demonstrate a positive behavior in terms of creating changes within the school and the organization.

Moreover, it can be seen that item 5 that is "adopt modern management practices such as ICT based instructions to the teaching-learning process" gained the highest mean of 4.70 or very high level. It implies that most of the school heads have practiced integrating ICT instructions to the teaching-learning process. This result somehow contradicts the findings of Butalid (2020) who revealed that ICT integration in the classroom is the lowest to be given priorities in school. he mentioned that teachers were not given support and relevant training in the application of ICT in the classroom setting. Meanwhile item 4 that is "create win-win solutions to the schools' concerns, issues, gaps and problems (CIGP's) through creative and innovative thinking strategies" had the lowest mean of 4.43 or high level. It implies the school heads weakest practices in innovation is their ability to respond to various concerns, issues, gaps, and problems of the school. Though they have demonstrated a good decision-making skills, they still need to be more creative and innovative so that they can arrive to a win-win solution.

Table 4

Level of Innovation Management of School Heads According to Behavioral Innovation Management

Items	Mean	Interpretation
The school heads...		
improve teachers' professional competencies by employing a range of development strategies.	4.52	Very High Level
set good example and demonstrate positive work behavior.	4.67	Very High Level
promote a creative climate and inspire co-workers to develop original ideas and solutions.	4.58	Very High Level
display emotional maturity and enthusiasm during challenging situations.	4.59	Very High Level

practice ethical and professional behavior and take responsibility of his/her actions and decisions.	4.58	Very High Level
demonstrate good time management practices.	4.54	Very High Level
establish healthy relationship among teachers, learners, the parents, and the community.	4.54	Very High Level
Overall Mean	4.59	Very High Level

Table 4 depicts a very high level of innovation management among school heads in terms of behavioral innovation with an overall mean of 4.59. This means that the school heads display professional behavior and work ethics in the performance of their roles and responsibilities.

In addition, it can be seen that item 2 which is "set good example and demonstrate positive work behavior" obtained the highest mean of 4.67. It can imply that the school heads are good role models in the school. It also depicts that they are leading by example among their teachers in terms of professionalism and positive work behavior. According to the study of Divinagracia (2022) school heads have been a good example in their respective schools. He even revealed that most of the school heads can work beyond what is expected from them.

Furthermore, item 1 which is "improve teachers' professional competencies by employing a range of development strategies" got the lowest mean of 4.52 or very high level. This means that while school heads display the desire to help the teachers improve professionally, they have the need to provide a variety of options for the teachers to grow and improve.

Table 5

Level of Innovation Management of School Heads According to Computational Innovation Management

Items	Mean	Interpretation
The school heads...		
encourage the use of technology-based instructions in the teaching-learning process.	4.71	Very High Level
display a wide range of computer knowledge and the application of technology in work and related fields	4.50	Very High Level
initiate school-based training on the application of technology in classroom management and teaching strategies.	4.42	High Level
implements modern school management practices.	4.46	High Level
use online platforms to communicate and update teachers including the conduct of meetings and conferences.	4.45	High Level
provide classrooms with technology equipment (TV, projectors, printers, etc.)	4.43	High Level
display enthusiasm in learning computer skills and in the application of technology in the workplace.	4.43	High Level
Overall Mean	4.51	Very High Level

Table 5 shows that the school heads had a very high level of innovation management in terms of computational innovation with an overall mean of 4.51. This suggests that the school heads had high regard to technology and its application to improve the school system.

As shown in the table, item 1 "encourage the use of technology-based instructions to the teaching-learning process" received the highest mean of 4.71 or very high level. This implies that school heads really give priority to the application of technology in the teaching and learning process. It could mean that most of them have a positive perception of the impact of technology in the modern day teaching. In the study of Wangchuk (2023) it was emphasized that the integration of technology in the teaching-learning process is very much evident in most schools. Her findings also revealed that the application of technology in the classrooms had enhanced learners' engagement and test scores.

However, item 3 "initiate school-based training on the application of technology in classroom management and teaching strategies" had the lowest mean of 4.42 or high level. This implies that the school heads were not giving much priority on training teachers in the application of technology to teaching. This means that while they are good in providing the resources for ICT integration, they were not able to give teachers the technical assistance like training and workshop to how this technology become more effective.

Level of School-Based Practices of School Heads According to Curriculum and Instruction, Classroom Management, and Assessment and Evaluation

The succeeding portion will provide information on the level of school-based practices demonstrated by school heads in the areas of Curriculum and Instruction, Classroom Management, and Assessment and Evaluation.

Table 6

Level of School-Based Practices of School Heads According to Curriculum and Instruction

Items	Mean	Interpretation
The school heads...		
create instructional and supervisory plan to ensure quality teaching and learning.	4.54	Very High Level

conduct LAC sessions to address the different teaching-learning gaps.	4.38	High Level
provide mentoring and coaching to teachers.	4.38	High Level
supervise the implementation of curriculum and check lesson plans frequently.	4.51	Very High Level
identify challenges in curriculum and instruction and create solutions to improve the teaching-learning process.	4.54	Very High Level
make review of curriculum content to ensure relevance and promote contextualization.	4.52	Very High Level
give technical assistance and support to teachers	4.52	Very High Level
Overall Mean	4.47	High Level

Table 6 presents a high level of school-based practices of school heads in the area of Curriculum and Instruction with an overall mean of 4.47. This infers that school heads' effort to improve teaching and learning is evident in schools.

Moreover, it is shown that item 1 "create instructional and supervisory plan to ensure quality teaching and learning" and item 5 "identify challenges in curriculum and instruction and create solutions to improve teaching-learning process" and item 5 "identify challenges in curriculum and instruction and create solutions to improve the teaching-learning process" scored highest with means of 4.54 or very high level. This implies that school heads common practice in ensuring the quality teaching and learning is the use of instructional supervisory plan where teachers the details and schedule of mentoring and coaching is reflected. It further implies that they are active in providing solutions to the problems of teachers in the teaching and learning process.

Nonetheless, the table also shows that item 2 "conduct LAC sessions to address the different teaching-learning gaps" and item 3 "provide mentoring and coaching to teachers" obtained the lowest means of 4.38 or high level. This implies that majority of the school heads could not conduct LAC sessions in their respective schools. It also means that they less give time on mentoring and coaching. These results show that the schools heads could not perform some of the tasks at school. This confirms the study of Agravante, Digo, and Janer (2023) which suggests that one of the areas of improvement among school leaders is mentoring and coaching. They found out that this area is one of the weakest point of school heads which contribute to their poor leadership development.

Table 7

Level of School-Based Practices of School Heads According to Classroom Management

Items	Mean	Interpretation
The school heads...		
conduct classroom observation regularly using standard classroom observation tools	4.57	Very High Level
ensure that classrooms are safe and hazard-free.	4.75	Very High Level
promote child-friendly classroom environment.	4.79	Very High Level
monitor teachers' and learners' attendance regularly.	4.72	Very High Level
promote the use of differentiated developmentally appropriate learning experiences to address learners' gender, needs, strengths, interests, and experiences inside the classroom.	4.59	Very High Level
provide budget for classroom repairs in the annual procurement plan	4.59	Very High Level
design classroom schedules which are flexible during calamities, disasters, and health emergencies.	4.59	Very High Level
Overall Mean	4.69	Very High Level

Table 7 draws a high level of school-based practices among school heads in terms of Classroom Management with an overall mean of 4.69. This means that the school can heads give much effort in classroom management tasks and these effort are evident to teachers.

Likewise, item 3 "promote child-friendly classroom environment" obtained the highest mean of 4.79 or very high level. This implies that learners' safety and well-being is the top priority of school heads in their respective schools. This result confirms the study of Magat (2021) which suggest that the schools in one the provinces in the country were compliance to the child-friendly school practices. She found out that the schools ensure that all their programs and projects are in compliance to the child-friendly system and in response to the sustainable development goals. Even so, it can also be observed that item 1 "conduct classroom observations regularly using standard classroom observation tools" had the lowest mean score of 4.57 or very high level. This could imply that the school heads were observing classes, yet there were aspects which they need to improve.

Table 8

Level of School-Based Practices of School Heads According to Assessment and Evaluation

Items	Mean	Interpretation
consolidate Quarterly Assessment Results (QAR) and monitor learners progress and failures	4.65	Very High Level
evaluate and analyze the result of quarterly assessment and provide remediations and recommending actions.	4.50	Very High Level
conduct numeracy and literacy assessments to learners.	4.48	High Level

communicate promptly and clearly the results of learners' assessment including needs and progress to key stakeholders, including parents/guardians.	4.51	Very High Level
ensure that assessment and evaluation tools are consistent with curriculum standards.	4.55	Very High Level
conduct teacher's evaluation and assessment as basis for professional development plans.	4.54	Very High Level
make use of assessment and evaluation data for project and program implementation.	4.54	Very High Level
Overall Mean	4.54	Very High Level

Table 8 still depicts a very level of school-based practices of school heads in the area of Assessment and Evaluation with an overall mean of 4.54. This suggests that the school headers are performing tasks relevant to this aforementioned area.

Additionally, it is reflected that item 1 "consolidate quarterly assessment result (QAR) and monitor progress and failures" received the highest mean score of 4.65 or very high level. This implies that reporting and tracking of learners' progress and failure is the most concern of the school heads in every end of the quarter. This also means that the school heads are monitoring learners' performance through the quarterly assessment result (QAR) consolidation report.

Moreover, item 3 "conduct numeracy and literacy assessment to learners" had the lowest mean score of 4.48 or high level. This implies that school heads could not conduct frequent reading and numeracy assessment to the learners. The results confirm the study of Aureada (2021) which revealed that monitoring learners progress is one of the functions that were carried out by school heads. However, the conduct of monitoring of teachers and assessment of learners were not evident.

Level of Innovation Management of School Heads According to Strategic Innovation Management, Behavioral Innovation Management, and Computational Innovation Management When Grouped According to Age, Highest Educational Attainment and Length of Service

Table 9

Level of Innovation Management of School Heads According to Strategic Innovation Management When Grouped According to Age

Items	Younger Mean	Interpretation	Older Mean	Interpretation
The school heads...				
design projects and programs to achieve school's mission and vision in the School Improvement Plan.	4.54	Very High Level	4.41	High Level
display good leadership practices which creates positive impact to the school culture, teachers, and learners.	4.69	Very High Level	4.53	Very High Level
make professional development plans for teachers' advancement and professional growth including promotion.	4.57	Very High Level	4.36	High Level
create win-win solutions to the schools' concerns, issues, gaps and problems (CIGPs) through creative and innovative thinking strategies.	4.54	Very High Level	4.33	High Level
adopt modern management practices such as ICT based instructions to the teaching-learning process.	4.75	Very High Level	4.65	Very High Level
establish strong partnership with internal and external stakeholders.	4.74	Very High Level	4.59	Very High Level
create income generating projects to boost school's financial resources.	4.69	Very High Level	4.61	Very High Level
Overall Mean	4.65	Very High Level	4.50	Very High Level

Table 9 reflects both a very high level of school heads innovation management in terms of strategic innovation when grouped according to age with overall means of 4.65 and 4.50 respectively. This infers that older and younger teachers share the same perceptions to how school heads work towards innovation of the schools.

Even more, there is a notable difference in the mean scores observed in item 3 "make professional development plans for teachers' advancement and professional growth including promotion" and item 4 "create win-win solutions to schools' concerns, issues, gaps, and problems (CIGP's) through innovative thinking strategies". It is reflected that younger had a mean scores of 4.57 and 4.54 or very high level, while older obtained scores of 4.36 and 4.33 or high level. This implies that older teachers observed little areas for improvement of how school heads help them with their professional growth like in getting promotion. It also connotes that those in the older category are not so satisfied with how the school heads respond to the school challenges and CIGP's of the school.

This somehow confirms the study of Divinagracia (2022) which revealed that older and younger teachers have different perceptions to how school heads fix problems and challenges of the school.

Table 10

Level of Innovation Management of School Heads According to Behavioral Innovation Management When Grouped According to Age

Items	Younger Mean	Interpretation	Older Mean	Interpretation
The school heads...				
improve teachers' professional competencies by employing a range of development strategies.	4.56	Very High Level	4.48	High Level
set good example and demonstrate positive work behavior.	4.79	Very High Level	4.56	Very High Level
promote a creative climate and inspire co-workers to develop original ideas and solutions.	4.64	Very High Level	4.53	Very High Level
display emotional maturity and enthusiasm during challenging situations.	4.72	Very High Level	4.47	High Level
practice ethical and professional behavior and take responsibility of his/her actions and decisions.	4.69	Very High Level	4.48	High Level
demonstrate good time management practices.	4.66	Very High Level	4.42	High Level
establish healthy relationship among teachers, learners, the parents, and the community.	4.67	Very High Level	4.42	High Level
Overall Mean	4.68	Very High Level	4.51	Very High Level

Table 10 shows that both younger and older teachers gave a very high level of innovation management to school heads according to innovation management with overall means of 4.68 and 4.51 respectively. This means that regardless of age, teachers had observed positive work behavior from their school heads.

However, there is a margin of difference recorded in the mean scores of item 4 "display emotional maturity and enthusiasm during challenging situations" where younger had 4.72 or very high level, while older scored 4.47 or high level. This implies that older teachers don't see enough enthusiasm displayed by the school heads compared to their younger counterparts. It also connotes that the teachers from the older category have observed on few occasions, that the school heads were not able to handle properly some of the problems or challenges of the school. This result somehow is different from the study of Trongco and Benolirao (2023) who found out there is not much difference in the level of enthusiasm displayed by the school leaders. Their findings show that regardless of age, school heads show the same level of enthusiasm and passion.

Moreover, there is also a similar disparity in the mean scores of item 7 "establish healthy relationship among teachers, learners, the parents, and the community" where younger scored 4.67 or very high level, while older had 4.42 or high level. This implies that younger and older teachers have different observations on how school heads maintain their relationship with the stakeholders. Younger teachers could have seen a strong relationship between school heads and the stakeholders, while older teachers may have observed a small gap within it.

Table 11

Level of Innovation Management of School Heads According to Computational Innovation Management When Grouped According to Age

Items	Younger Mean	Interpretation	Older Mean	Interpretation
The school heads...				
encourage the use of technology-based instructions in the teaching-learning process.	4.77	Very High Level	4.65	Very High Level
display a wide range of computer knowledge and the application of technology in work and related fields	4.51	Very High Level	4.48	High Level
initiate school-based training on the application of technology in classroom management and teaching strategies.	4.48	High Level	4.36	High Level
implements modern school management practices.	4.52	Very High Level	4.39	High Level
use online platforms to communicate and update teachers including the conduct of meetings and conferences.	4.64	Very High Level	4.27	High Level
provide classrooms with technology equipment (TV, projectors, printers, etc.)	4.62	Very High Level	4.26	High Level
display enthusiasm in learning computer skills and in the application of technology in the workplace.	4.61	Very High Level	4.27	High Level
Overall Mean	4.58	Very High Level	4.43	High Level

Table 11 shows a different level of innovation management of school heads in terms of computational innovation management according to age. It is shown that younger teachers obtained an overall mean of 4.58 or very high level, while older teachers scored 4.43 or high level. This infers that younger and older teachers have different perceptions towards their school heads computer knowledge and attitude.

Furthermore, it implies that older teachers observed that the school heads don't have enough knowledge regarding computer application in the workplace. This can be supported by the huge margin of scores in item 5 which is "use online platforms to communicate and update teachers including the conduct of meetings and conferences" where the older scored only 4.27 or high level, while younger scored 4.64 or very high level. This strongly implies that the school heads are not expert yet in using computer and other online innovations in the workplace. It also strongly suggests that older teachers have high regard to online platforms as means of communication and for conducting meetings and conferences which they want to be adopted by their school heads. This perception from older teachers conforms the findings of Lambot and Yango (2023) which revealed that school heads had low level of technological knowledge in terms of professional practice. It means that there is a need for the school heads to be equipped with technological skills and be updated on how various media formats to communicate, interact, and collaborate with peers, teachers, and other stakeholders.

Conclusion:

From the findings of the study, the following conclusions are drawn.

The teachers' profile suggests that most of them need to enroll in graduate studies for professional development and career advancement. The school heads were observed to be weaker in computational innovation management, especially in training teachers on the application of technology in teaching.

Nonetheless, they foster a climate where technology-based instruction could be utilized by teachers.

Curriculum and instruction practices of school heads are less likely to be observed by teachers such as those related to LAC sessions and mentoring and coaching. Teachers have different observations on their school heads' innovation management in schools.

The school-based practices of school heads were appreciated better by teachers who are younger, with bachelor's degree, and shorter years of experience. The teachers had demonstrated good performance in the school year 2022-2023. Teachers' age and length of service can be significant to the way they observe their school heads innovation management. Teachers' perceptions of the classroom management practices of school heads are influenced by their age and length of service. Teachers' performances were not affected by their demographic profile.

Teachers' observation to school heads' innovation management has no impact to their teaching performance.

The observed school-based practices of school heads do not affect teachers' performance.

References:

- Agravante, M., Digo, G., and Janer, S. (2023). Upskilling of the School Heads in the New Normal. *East Asian Journal of Multidisciplinary Research* 2(6):2509-2524. DOI:10.55927/eajmr.v2i6.4257.
- Alayan, Gil. (2022). School Heads' Technological Leadership and Teachers' ICT Integration in Instruction in the Public Elementary Schools in the Division of Quezon. 10.5281/zenodo.6852893.
- Almarino, P., Ocampo, L., Abellana, D., Almaerino G., Pinili, L., Tenerife, J., Sitoy R., Abelas, L., & Peteros, E. (2014). Evaluating the Academic Performance of K-12 Students in the Philippines: A Standardized Evaluation Approach. *Hindawi Education Research International* Volume 2020, Article ID 8877712, 8 pages <https://doi.org/10.1155/2020/8877712>
- Almonica Jr, C., & Padasas, R. (2022). School Learning Action Cell (SLAC) Program: The Batuan District Experience. *Psych Educ*, 6, 1092-1099.
- Andriani, S., Kesumawati, N., & Kristiawan, M. (2018). The influence of the transformational leadership and work motivation on teachers performance. *International journal of scientific & technology research*, 7(7), 19-29.
- Argoncillo, H. (2022). Readiness, commitment, and challenges encountered by school heads in the new learning modality. STI West Negros University, Bacolod City. Unpublished Dissertation.
- Atila, F. (2022). PERCEPTIONS OF TEACHERS WORKING IN PRIMARY AND SECONDARY SCHOOLS REGARDING THE INNOVATION MANAGEMENT COMPETENCIES OF SCHOOL MANAGERS. *Hatay Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 19(50), 258-282.
- Aureada, J. (2021). The instructional leadership practices of school heads.
- Bada, Hafsat & Faekah, Tengku & Tengku Ariffin, Tengku Faekah & Nordin, Hasniza. (2020). Teachers' Perception of Principals' Instructional Leadership Practices in Nigeria. *Universal Journal of Educational Research*. 8. 4459-4469. 10.13189/ujer.2020.081013.
- Baluyos, G. R., Rivera, H. L., & Baluyos, E. L. (2019). Teachers' job satisfaction and work performance. *Open Journal of Social Sciences*, 7(8), 206-221.
- Barrios, R. T. (2021). Outcomes-based education practices in higher institutions in aklan, philippines. *Galaxy International Interdisciplinary Research Journal*, 9(8), 147-158.
- Butalid, J. (2020). Commitment and competence of teachers in relation to their performance. STI West Negros University, Bacolod City. Unpublished Dissertation

- Caldwell, B. (2015). School-based management. The International Institute for Educational Planning (IIEP). ISBN:92-80301278-2.
- Caning, M. C. M., & Edralin, D. M. (2016). Innovation management strategies of four pioneering Entrepreneurs from Camarines Sur, Philippines. *Abac Odi Journal Vision. Action. Outcome*, 3(2), 1-17.
- Çar, Bekir & Sural, Volkan & Güler, Hasan. (2022). Investigating the Relationship Between Physical Education Teachers' Perceptions, Technological Knowledge and Classroom Management Profiles. *Education Quarterly Reviews*. 5. 10.31014/aor.1993.05.02.501.
- Carmel, R. G., & Paul, M. W. (2015). Mentoring and coaching in academia: Reflections on a mentoring/coaching relationship. *Policy Futures in Education*, 13(4), 479-491.
- Casiano, N. (2024). School Organizational Innovation and Productivity of Public Elementary Teachers in Digos South District. *Nexus International Journal of Science and Education*, 1(2).
- Catolos, L. C., & Catolos, F. G. (2017, June). Teaching performance of selected public secondary school teachers in Tanay, Rizal. In 4th International Conference in Management Science, Innovation and Technology.
- Chang, I. H., Hsu, C. M., & Hu, C. C. (2019, June). The Relationships among Principals' Technology Leadership, Teachers' Learning Community and Innovation Management of Junior High Schools. In *EdMedia+ Innovate Learning* (pp. 453-465). Association for the Advancement of Computing in Education (AACE).
- Cherasaro, T. L., Brodersen, R. M., Reale, M. L., & Yanoski, D. C. (2016). Teachers' Responses to Feedback from Evaluators: What Feedback Characteristics Matter? Making Connections. Washington, D.C. Retrieve from https://lies.ed.gov/ncee/edlabs/regions/central/pdf/REL_2017-190.pdf
- Chiwamba, S., Mtitu E., Kimatu, J. and Ogondeik, M. (2022). Influence of school instructional supervision practices on teachers work performance in public secondary schools in Lindi Region-Tanzania. *Journal of Education and Practice*, 13(14).
- Daracan, D. V. (2023). Instructional supervision among elementary teachers: Basis for management plan for professional development. *INSTRUCTIONAL SUPERVISION AMONG ELEMENTARY TEACHERS: BASIS FOR MANAGEMENT PLAN FOR PROFESSIONAL DEVELOPMENT*, 137(1), 32-32.
- Deala, M., & Lopez, E. (2024). School Learning Action Cell (SLAC) Implementation and its Impact on the Personal and Professional Development among Elementary Teachers. *Psychology and Education: A Multidisciplinary Journal*, 21(3), 253-265.
- Divinagracia, L. (2022). School heads' phronetic leadership and conflict resolution skills in relation to teachers' work performance. STI West Negros University, Bacolod City. Unpublished Dissertation.
- Divinagracia, L. (2022). School heads' Phronetic Leadership and Conflict Resolution Skills in Relation to Teachers' Work Performance. STI West Negros University-Bacolod City, Unpublished Dissertation.
- Doss, Greg. (2014). A Generational Perspective of Teachers' Perceptions of Principals' Leadership Practices.
- Ekşi, H., Özgenel, M., & Çiftçi, Ç. A. (2021). The predictive role of innovation management with lifelong learning on individual innovativeness: An examination on teachers. *International Journal of Educational Leadership and Management*.
- Ela, A., Ismanto, B., and Iriani, A. (2022). School-based management: Participation in improving the quality of education. *Jurnal Imiah Pendidikan dan Pembelajaran*, 7(1). ISSN:1858-4543. https://www.researchgate.net/publication/370931705_School-Based_Management_Participation_in_Improving_the_Quality_of_Education [accessed Aug 13 2023].
- Estrada, M. J., & Gumban, J. (2024). School Heads' Competence, Teachers' Performance in the Light of Philippine Professional Standards for Teachers, and Students' Academic Performance. *Technium Sustainability*, 6, 38-55.
- Fernandez, M. (2022). Schoolbased management practices among elementary schools: Basis for enhanced k-12 program in the division city schools, City of Muntinlupa. https://www.researchgate.net/publication/370954942_SCHOOL-BASED_MANAGEMENT_PRACTICE_AMONG_ELEMENTARY_SCHOOLS_BASIS_FOR_AN_ENHANCED_K-12_PROGRAM_IN_THE_DIVISION_CITY_SCHOOLS_CITY_OF_MUNTINLUPA [accessed Aug 13 2023].
- Flake, L. H. (2017). A Look at the Relationship of Curriculum and Instruction and the Art and Science of Teaching. *Asian journal of education and training*, 3(2), 82-85.
- Francis, O. & Oluwatoyin, F. (2019). Principals' Personnel Characteristic Skills: A Predictor of Teachers' Classroom Management in Ekiti State Secondary School. *International Journal of Educational Leadership and Management*, 7(1), 72-103.
- Frank, Louis & Mohamed, Saleh. (2024). Innovation and Creativity: Exploring the role of innovation and creativity in strategic planning.
- Fuad, D. R. S. M., Musa, K., & Hashim, Z. (2022). Innovation culture in education: A systematic review of the literature. *Management in Education*, 36(3), 135-149.
- Galleto, P. and Escobido, K. (2022). Describing Basic Education Quality Through School Governance and Students' Access to Educational Opportunities. *International Journal of Advanced Multidisciplinary Research and Studies*, 2(6). ISSN: 2583-049X Available from: https://www.researchgate.net/publication/368464037_Describing_Basic_Education_Quality_Through_School_Governance_and_Students%27_Access_to_Educational_Opportunities [accessed Aug 24 2023].

- Hall, T., Vue, G., Koga, N., and Silva, S. (2014). Curriculum Modification. Wakefield, MA: National Center on Accessing the General Curriculum.
- Hardiansyah, F. (2022). The Implementation of School-Based Management in Improving Quality of Education in Primary School. *Jurnal Manajemen Pendidikan*, 9(2). ISSN: 2549-9661. https://www.researchgate.net/publication/368945969_The_Implementation_of_School-Based_Management_in_Improving_Quality_of_Education_in_Primary_School [accessed Aug 13 2023]
- Hollywood, K. G., Blaess, D. A., Santin, C., & Bloom, L. (2016). Holistic Mentoring and Coaching to Sustain Organizational Change and Innovation. *Creighton Journal of Interdisciplinary Leadership*, 2(1), 32-46.
- Hulsbos, F. A., Evers, A. T., & Kessels, J. W. M. (2015). Learn to lead: Mapping workplace learning of school leaders. *Vocations and Learning*, 9(1), 21-42. doi:10.1007/s12186-015-9140-5.
- Jacob, O., Samuel, A., Pajo, W. and Elizabeth A. (2020). Monitoring and evaluation of education in Nigeria: Challenges and ways forwards. *International Journal on Orange Technologies*, 2(10), 8-16.
- Jankingththong, K. and Rurkkhum, S. (2014). Factors Affecting Job Performance: A Review of Literature University Journal of Social Sciences, Humanities, and Arts Vol.12 (2) : 115-127, 2014.
- Jensen, B. (2014). Making time for great teaching. Grattan Institute. Retrieved from: <http://garttan.edu.au/wp-content/uploads/2014/03/308-making-time-for-greatteaching.pdf>
- Kapur, R. (2018). Factors influencing performance and job satisfaction of teachers in secondary schools in India. *Research Gate*, 1-25.
- Kathongo, S. M. (2018). Influence of Participatory Monitoring and Evaluation on Performance of Public Secondary Schools Projects in Mutomo Sub-County, Kenya. *International Journal of Scientific Research and Management (IJSRM)*, 6(03).
- Kilag, O. K., Malbas, M., Nengasca, M. K., Longakit, L. J., Celin, L., Pasigui, R., & Valenzona, M. A. V. (2024). Transformational Leadership and Educational Innovation. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRIS)*, 1(1), 110-114.
- Kiral, E., & Sucicegi, A. (2017). The Relationship between Teachers' Perception of School Principals' Instructional Leadership and Organisational Commitment Level. *International Journal of Psycho-Educational Sciences*, 6(1), 95-109.
- Ko, J., Sammons, P., & Bakkum, L. (2014). Effective teaching: A review of research and evidence. London: CfBT.
- Lambot, G. and Yango, A. (2023). Secondary school heads' technology leadership skills, educational motivation, teachers' techno-pedagogical competence in the City Schools Division of Laguna. *Technium Social Sciences Journal*. Vol.44,449-476. ISSN:2668-7798.
- Landawe, S. A., Cayabas, M. D., & Landawe, B. K. K. A. (2024). Supervisory Competence and Managerial Behavior of School Heads and Teachers' Performance in Southern Philippines. Online Submission.
- Laska, L. (2016). Monitoring and evaluating the performance of teachers through the process of observation in the classroom. *European journal of multidisciplinary Studies*, 1(2), 369-377.
- Lingam, G. I., & Lingam, N. (2015). Are they fit for leading? Teachers' perceptions of leadership practices of Niuean school principals. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, 43(1), 35-47.
- Llemit, Rudy. (2024). Personnel Management Practices in Relation to Teachers' Teaching and School Performance. 10.22161/ijels.92.19.
- Magat, M. (2021). Implementations of programs under the child-friendly school systems (CFSS: Response to sustainable development goals. *International Journal of Research and Innovation in Social Science*. 05. 555-562. DOI:10.4777/IJRIS.2021.51129.
- Mallari, N. P. (2022). Management Competencies and Supervisory Practices of School Heads. In *Proceedings of the Asia Pacific Conference on Multidisciplinary Research (APCMR)* (Vol. 30, p. 31).
- Marzavan, Daniela & conference, in. (2021). A praxeological perspective on Innovation Management and Design Thinking. 10.34190/EIE.21.167.
- Mercado, C. (2018). Standards for teacher's performance. *Pressreader.com/* August 29, 2019
- Ndungu, B. W., Allan, G., & Bomett, E. J. (2015). Influence of Monitoring and Evaluation by Principals on Effective Teaching and Learning in Public Secondary Schools in Githunguri District. *Journal of Education and Practice*, 6(9), 10-17.
- Okolie, U. C., Igwe, P. A., Nwajiuba, C. A., Mlanga, S., Binuomote, M. O., Nwosu, H. E., & Ogbaekirigwe, C. O. (2020). Does PhD qualification improve pedagogical competence? A study on teaching and training in higher education. *Journal of Applied Research in Higher Education*, 12(5), 1233-1250.
- Olaivar, D., and Loayon, L. (2022). School Heads' Human Resource Management Practices, Teachers' School Engagement, and Teaching Performance. *International Journal of Research*, September, 10(9), 27-41.
- Ortega, E. M., & Palarisan, N. J. B. (2021). Innovative Leadership of Principals in the Implementation of Senior High School Program in Philippines. *South Journal of Social Studies and Economics*, 11(1), 48-59.
- Pagaura, A. (2020). Innovative leadership attributes of school administrators in the Philippines: Implications for educational management. *Interdisciplinary Research Review*, 15(2), 1-7.
- Panganiban, A. C. (2018). Practices and techniques of school heads of region IV-A (CALABARZON) in influencing people: Towards school leader program/course design. *KnE Social Sciences*, 98-117.

- Que, E. N. (2021). Sustaining Successful ICT Integration in Remote Rural Schools. *Pertanika Journal of Social Sciences & Humanities*, 29(3).
- Razak, N., Ab Jalil, H., & Ismail, I. (2019). Challenges in ICT integration among Malaysian public primary education teachers: The roles of leaders and stakeholders. *International Journal of Emerging Technologies in Learning (IJET)*, 14(24), 184-205.
- Riyadi, Ansori, Ramli, A., Dewi, R., Hendrajaya, (2023). Managerial and professionalism of teachers in the implementation of school-based management. *Journal on Education* 5,(4) ISSN:2654-5497. https://www.researchgate.net/publication/372959137_The_Effect_of_Principal_Management_and_Professionalism_of_Teachers_on_the_Implementation_of_School-Based_Management [accessed Aug 13 2023].
- Safrankova, J. and Sikyr, M. (2018). Responsibilities and competencies in personnel management at Czech schools. *Oeconomia Copernicana*. 9. 529-543. 10.24136/oc.2018.027.
- Sartain, L. & Steinberg, M. P. (2015). Does teacher evaluation improve school performance? Experimental evidence from Chicago's excellence in teaching project. *Education Finance and Policy*, 10(4), 535-572. https://doi.org/10.1162/EDFP_a_00173
- Sitthisomjin, J., Somprach, K., & Phuseeorn, S. (2020). The effects of innovation management on school performance of secondary schools in Thailand. *Kasetsart Journal of Social Sciences*, 41(1), 34-39.
- Stoltzfus, J. (2015). Student's t-test for independent samples. *International Journal of Academic Medicine*, 1(1), 27-28.
- Sun, M., Mutcherson, R. B., & Kim, J. (2016). Teachers' use of evaluation for instructional improvement and school supports for such use. In J. Grissom & P. Youngs (Eds.), *Improving Teacher Evaluation Systems: Making the Most of Multiple Measures* (1st ed., pp. 102-116). New York, NY: Teachers College Press.
- Titrek, O. (2015). The level of innovation management of school principals' in Turkey. *The Anthropologist*, 19(2), 449-456.
- Trongco, A. and Benolirao, E. (2023). Interpersonal. Leadership, and supervisory skills of public school heads . *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(9). 3211-3222.
- Trujillo-Torres, J. M., Hossein-Mohand, H., Gómez-García, M., Hossein-Mohand, H., & Cáceres-Reche, M. P. (2020). Mathematics teachers' perceptions of the introduction of ICT: The relationship between motivation and use in the teaching function. *Mathematics*, 8(12), 2158.
- Tuyay, I. and Malangen, A. (2023). Implementation of School-Based Management as Perceived by Teachers and the Level of Participation of Parents of San Isidro Labrador Elementary School. *American Journal of Science and Learning for Development*. ISSN:2835-2157. https://www.researchgate.net/publication/372477570_Implementation_of_School-Based_Management_as_Perceived_by_Teachers_and_the_Level_of_Participation_of_Parents_of_San_Isidro_Labrador_Elementary_School [accessed Aug 13 2023].
- Ubongen M., and Revuelta, S. (2022). Teachers' instructional competences as influenced by school-based management practices of school heads. *AIDE Interdisciplinary Research Journal*, 1, 26-35.
- Viggayan, E. R. (2017). School-Based Management Practices of Public Secondary School Heads: Basis for Policy Recommendation. *SPUP Graduate School Research Journal*, 15(1).
- Vikaraman, S. S., Mansor, A. N., & Hamzah, M. I. M. (2017). Mentoring and coaching practices for beginner teachers—A need for mentor coaching skills training and principal's support. *Creative Education*, 8(1), 156-169.
- Vikaraman, S., Mansor, A., and Hamzah, M. (2017). Mentoring and coaching practices for beginner teachers – A need for mentor coaching skills training and principals' support. *Creative Education* 8, 8(1) 156-169.
- Von Hippel, Christiana D. & Cann, Andrew B., 2021. "Behavioral innovation: Pilot study and new big data analysis approach in household sector user innovation," *Research Policy*, Elsevier, vol. 50(8).
- Wangchuk, N. (2023). Impact of ICT integration in science classrooms at one of the middle secondary schools. *Journal of Humanities and Education Development* 5(5):7-17. DOI:10.22161/jhed.5.5.2.
- Wu, W. (2022, July). Investigating internship experiences of data science students for curriculum enhancement. In *Proceedings of the 27th ACM Conference on on Innovation and Technology in Computer Science Education* Vol. 1 (pp. 505-511).
- Helling, B. (2020). "Head Teacher". My Job Search. Retrieved on May 04, 2021. <https://www.myjobsearch.com>