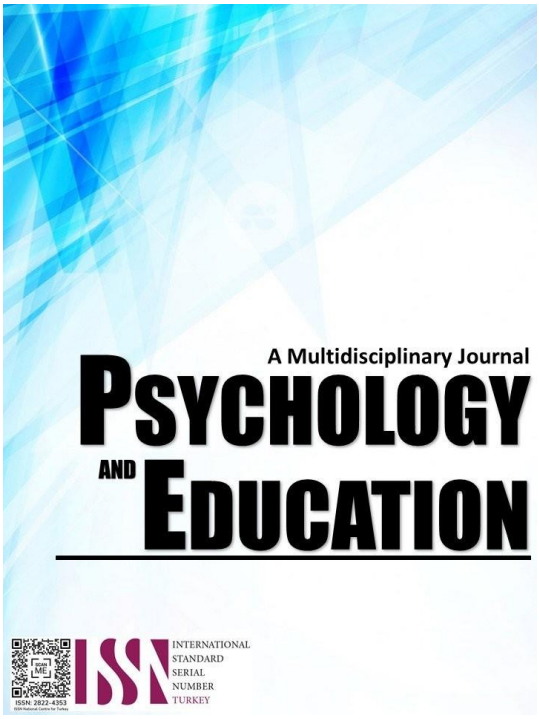
INSTRUCTIONAL AND SUPERVISORY COMPETENCIES AND RESEARCH PRODUCTIVITY OF MASTER TEACHERS IN THE CITY SCHOOLS DIVISION OF DASMARINAS CAVITE: BASIS FOR COMPETENCY ENHANCEMENT PLAN



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 30
Issue 1
Pages: 181-208
Document ID: 2024PEMJ2846
DOI: 10.5281/zenodo.14602581
Manuscript Accepted: 12-17-2024

Psych Educ, 2024, **30**(1): 181-208, Document ID:2024PEMJ2846, doi:10.5281/zenodo.14602581, ISSN 2822-4353

Research Article

Instructional and Supervisory Competencies and Research Productivity of Master Teachers in the City Schools Division of Dasmarinas Cavite: Basis for Competency Enhancement Plan

Christine T. Tubog,* Liza C. Costa
For affiliations and correspondence, see the last page.

Abstract

This study was conducted to determine the relationship between instructional and supervisory competencies and research productivity of master teachers in the City Schools Division of Dasmariñas Cavite to serve as basis for competency enhancement plan. It specifically sought to describe the socio-demographic profile of the participants, determine level of instructional and supervisory competencies, and research productivity, compare the difference in the instructional and supervisory competencies and research productivity when grouped according to socio-demographic profile, determine the difference among the following components of instructional competencies and finally to determine the relationship among instructional and supervisory competencies, instructional competencies and research productivity, and supervisory competencies and research productivity. This study used a descriptive-correlational research design and surveyed 192 master teachers using researcher-made questionnaire. The result shows that most of the master teachers aged 45 to 59 years old, female with a master's degree, served as master teachers within 5 years and below, taught elementary level, and had attended more than 2 research trainings. Moreover, master teachers, are very competent on the level of instructional and supervisory competencies. However, less productive on the level of research productivity. Furthermore, both in the instructional and supervisory competencies have a significant difference in educational attainment and length of service as to research productivity. Moreover, there is a significant difference revealed among components of instructional competencies. Lastly, instructional and supervisory competencies were significantly related. However, there is no significant relationship between instructional competencies and research productivity, as well as between supervisory competencies and research productivity. It is recommended to design professional development programs, establish continuous development systems, utilize their supervisory skills for mentoring, incentivize research activities, incorporate educational attainment and length of service in recruitment, invest in classroom management programs, adopt a competency enhancement plan, foster a research culture, and consider research utilization and citation in future research.

Keywords: *instructional competencies, supervisory competencies, research productivity, master teacher*

Introduction

It is well acknowledged that research is crucial for enhancing academic success. The research contributes to learning among young students, helps construct sophisticated learning settings, attracts the best teachers, and guarantees that established professionals continue their education. It also provides fresh knowledge that can be put into practice (McKenney & Reeves, 2021). In light of what Chen & Reeves (2020) said, research-based schools offer better education, so a public school system needs research capacity to provide high-quality education.

Research productivity has been strongly emphasized in the educational sector in various countries. It is widely acknowledged that both public and private research institutions' central concerns are to create an environment of innovation for academic advancement and to increase the quality of education.

Educational institutions nowadays have integrated research into the curriculum to be globally competitive among nations. According to Komárek et al. (2017), the rating of higher education and global competitiveness also shows a statistically significant correlation.

In the Philippine Development Plan 2017–2022, the nation wants to achieve upper-middle income status by building a solid basis for inclusive growth, a society that is trustworthy and resilient, and a knowledge economy that is competitive on a global scale. To carry out this vision, the nation fosters a culture of research in a variety of fields (Guido & Orleans 2020).

In 1996, the Philippines was once a leader and a center for education, but it is now far behind nations like Indonesia and Thailand in terms of education. According to empirical results, the Philippine educational system is in a "deplorable state of deterioration," and elementary education is failing to produce citizens who are self-reliant, productive, and responsible (Faragher et al. 2021). Although there have been numerous studies on research productivity in the Philippines.

Moreover, the Governance of Basic Education Act of 2001 emphasized the role of research in basic education system management and administration (Official Gazette, Chapter 1, Sec. 7 (5) Rep. Act No. 9155). In response to this law, the Department of Education established the Basic Education Research Agenda (BERA). This implies that the Department of Education in the Philippines has worked to improve research within the department to consider the enhancement of teachers' competence. Therefore, research areas are important and useful in light of the vision and mission of the department. However, the researcher observed that there is a limited research output in contrast to the number of master teachers.

One of the rules and regulations enclosed in the Ministry of Education and Culture (MEC) Order No. 10, s. 1979: Implementing Rules and Regulations for the System of Career Progression for Public School Teachers, Master teachers ought to "initiate or headed an educational research activity," and based on the Philippine Professional Standards for Teachers (PPST), where the RPMS is anchored, they were tasked with delivering high-quality instruction to their students and supervising teachers for professional development.

It has been observed that during the local research forum of the Division of Dasmariñas City, there were very few master teachers who were presenting their research. Based on Division Memorandum No. 286 s.2022, the City Schools Division of Dasmarinas received a great number of abstracts for the 8th City of Dasmarinas Research Educators' Assembly (CDREAM); however, only a few master teachers are on the list who are involved in the said assembly.

As leaders in their field, master teachers are expected to demonstrate instructional and supervisory competencies and engage in research activities that can contribute to the advancement of knowledge and practice in education. However, given the problem at hand, it is imperative to assess the current status of master teachers' instructional and supervisory competencies and research productivity because understanding the existing competencies and research productivity levels can serve as a basis for formulating a competency enhancement plan that addresses any identified gaps or areas for improvement.

Research Questions

The study aimed to discuss and determine the relationship between instructional and supervisory competencies and the research productivity of master teachers in the City Schools Division of Dasmariñas Cavite to serve as basis for competency enhancement plans. Specifically, the study sought to answer the following questions:

1. What is the socio-demographic profile of the participants in terms of:
    1.1. age;
    1.2. sex;
    1.3. highest educational attainment;
    1.4. length of service as a master teacher;
    1.5. school level of assignment; and
    1.6. the number of research training attended?
2. What is the level of instructional competencies of the participants in terms of:
    2.1. content knowledge and pedagogy;
    2.2. classroom management;
    2.3. evaluation;
    2.4. lesson Planning; and
    2.5. development of teaching-learning materials?
3. What is the level of supervisory competencies of participants in terms of:
    3.1. observation;
    3.2. diagnosing and solving teaching problems;
    3.3. mentoring and coaching; and
    3.4. leadership?
4. What is the level of research productivity of the participants in terms of:
    4.1. research completed;
    4.2. research presentation; and
    4.3. research publication?
5. Is there a difference in the following variables when grouped according to socio-demographic profile:
    5.1. instructional competencies;
    5.2. supervisory competencies; and
    5.3. research productivity?
6. Is there difference among the components of instructional competencies?
7. Is there a relationship among the following variables:
    7.1. instructional and supervisory competencies;
    7.2. instructional competencies and research productivity;
    7.3. supervisory competencies and research productivity? and
8. What plan may be proposed to enhance participants' competencies?

Methodology

Research Design

The study utilized a quantitative research design to thoroughly understand the mere quantification or metric techniques on the existing instructional and supervisory competencies and research productivity of master teachers in the city schools of Dasmarinas Cavite. The study used a descriptive-correlational approach. Descriptive research, as defined by Fraenkel and Wallen (2003, as cited in Dulino,

2020), is a study describing a given state of affairs as fully and carefully as possible. In this study, the demographic profile of the participants was described along with their age, sex, educational attainment, length of service, school level assignment, and number of research training attended. Regarding correlational research, Fraenkel and Wallen (2003, as cited by Dulino, 2020), is more than simply describing situations and events but rather knowing the difference in variables relating to other variables and investigating possible relationships. The instructional competence, supervisory competence, and research productivity of the master teachers will serve as the dependent or criterion variables in this study, the demographic profile served as the independent or predictor variables.

Respondents

The participants of the study are the public schools master teachers in the City School's Division of Dasmariñas Cavite. Only 192 or 72 percent of 267 total population of master teachers responded to the survey questionnaire. However, the sample size was deemed sufficient for achieving statistically significant result.

Table 1. *Distribution of the actual sample*

Division/ Department	*Position*	*Number*	*Sample Size*	*Percentage (%)*
Elementary	Master Teacher I	31	29	11
	Master Teacher II	154	113	42
Junior High School	Master Teacher I	7	5	2
	Master Teacher II	57	32	12
Senior High School	Master Teacher I	15	10	4
	Master Teacher II	3	3	1
Total		267	192	72

This study used a purposive sampling method to select participants from the population of all master teachers in public schools in the Division of Dasmarinas Cavite. Purposive sampling is "a type of non-probability sampling method that involves selecting participants based on a specific purpose or characteristic that is relevant to the research question" (McCombes, 2019, p. 1). Purposive sampling was chosen because it allows the researcher to focus on the most informative and suitable cases for the study, and it is feasible and practical given the limited time and resources available for data collection and analysis. The study does not intend to generalize or statistical inferences about the population of master teachers, but rather to provide a rich and detailed description of their experiences and challenges. The criterion for selecting the participants was that they must be master teachers before the school year 2023-2024, as they are expected to have more insights and knowledge about their role and responsibilities as master teachers. The criterion was applied to obtain a list of all master teachers from the Division Office and filtering out those who were appointed or promoted after the school year 2023-2024. The expected participants who will take part in the study are the 267 master teachers at the City Schools Division of Dasmarinas Cavite.

Instrument

This study used a researcher-made questionnaire as the primary source of data. The validated and approved survey questionnaire were administered to the master teachers with the approval of the participant to participate in the study. The participants have a specified time limit to answer the questions in the questionnaire. The completed questionnaires were collected and analyzed as the primary data for the study.

The secondary data for this study were obtained from various sources, such as articles, peer-reviewed journals, and published or unpublished theses by research experts in the field. These sources supported and explained the results of this study by providing relevant literature and evidence.

Procedure

For the data gathering procedure, the researcher immediately started the data gathering right after the validation and reliability test. In the data-gathering process, the researcher observed the following activities/steps: First, the researcher requested permission through a formal letter to the concerned authorities of the institution to conduct the study. Secondly, the researcher obtained permission from the Schools Division Superintendent of the City Schools Division of Dasmariñas to conduct the study. The researcher also asked for an endorsement from the school principals through personal visits asking permission to allow master teachers to be part of the study. Thirdly, the researcher conducted a briefing among the participants as to the instructions for answering the questionnaires. The briefing covered voluntary participation, confidentiality, ethics, distribution, collection, and sending out of the questionnaires.

Data Analysis

To examine the magnitude of the intervening influence on predicted instructional and supervisory competence and research productivity the following statistical tools were used: Frequency and Percentage, Median, t-test, Mann-Whitney Kruskal-Wallis, and Spearman Rank. The significance of the differences and relationship was tested at 0.05 levels.

Frequency and Percentage. These were used to analyze the socio-demographic profile of the participants.

Median. This tool was used to determine the level of instructional and supervisory competencies and research productivity of the participants.

Mann-Whitney and Kruskal-Wallis. These were employed to find out the significant differences in the level of instructional competencies and the research productivity when the respondents are grouped according to age, sex, highest educational attainment, length of service as master teacher, school level of assignment, and number of research attended. Also, to determine the significant differences in master teachers' supervisory competencies and research productivity when grouped according to age, sex, highest educational attainment, length of service as master teacher, school level of assignment, and number of research attended.

Spearman Rank. This tool was used to determine the significant relationship between instructional competencies and research productivity, and supervisory competencies and research productivity. Also, to find out the significant correlation between instructional and supervisory competencies.

Ethical Considerations

Before the researcher commenced the data gathering, she got an approval of the ethics and review board (ERB). The researcher wrote a letter to seek permission to administer the questionnaires to the institutions involved in the current study. All schools were contacted accordingly. Informed consents were given to the participants indicating the purpose of the study. Personally identifiable data were not collected, and other information were kept confidential.

The researcher ensured that the potential risks to the participants were minimized and that the benefits of the study outweigh the risks. Risks could include physical, emotional, or social harm to the participants. The researcher also ensured that the study has social value, and the results can contribute to society's knowledge and understanding.

Results and Discussion

This section presents the results and findings of the data gathered based on the problems raised in the study.

Socio-Demographic Profile of the Participants

The socio-demographic profile of the participants in this study was age, sex, highest educational attainment, length of service as a master teacher, school level of assignment, and number of research training attended. Table 2 shows the socio-demographic profile of the participants.

Table 2. *Socio-demographic profile of the participants*

Demographic Profile	*Classification*	*Frequency*	*Percent*
Age	26 to 44	56	29
	45 to 59	124	65
	60 and above	12	6
Sex	Male	40	21
	Female	152	79
Highest Educational Attainment	Bachelors' Degree	75	39
	Masters' Degree	97	51
	Doctorate Degree	20	10
Length of Service as Master Teacher	1-5 years	75	39
	6 - 10 years	37	19
	11 – 15 years	23	12
	16 - 20 years	13	7
	21 years and above	44	23
School Level Assignment	Elementary	132	69
	Junior High School	54	28
	Senior High School	6	3
Number of Research Training Attended	2 and above	153	80
	One	26	14
	None	13	7

Age. The result revealed that among the 192 participants, 124 or 65 percent whose ages are 45 to 59 years old, followed by those between 26 to 44 years old, comprise 56 or 29 percent, and those whose ages are 60 years old and above, comprise 12 or 6 percent. This implies that most master teachers in the City Schools Division of Dasmariñas were aged 45 to 59 years old "middle-age". This finding is similar to the findings of Francisco (2020), who found that the majority of the teachers were young and middle-aged adults.

Sex. The result confirms that 152 or 79 percent of the participants were female and 40 or 21 percent were male. The result implies that most of the master teachers in the division were female. This result is similar to the study of Salvan and Hambre (2020) where it was found out that female teachers are more than male teachers (67% vs. 33%).

Highest educational attainment. It is gleaned that 97 or 57 percent had a master's degree, 75 or 39 percent just had a bachelor's degree,

and 20 or 10 percent had a doctorate degree. This implies that most of the master teachers in the division were master's degree holders.

Length of service as master teacher. It was revealed that 75 or 39 percent served within 5 years and below, followed by 44 or 23 percent with 21 years and above, 37 or 19 percent with 6 to 10 years, 23 or 12 percent with 11 to 15 years and lastly, 13 or 7 percent with 16 to 20 years. This implies that most of the participants have been serving in the role of master teachers for under five years. The result of this study is similar to the study of Acuna (2020), wherein 35 percent had 5 years or less of teaching experience, which constitutes the highest percentage of the participant's length of teaching experience. However, contrary to the study by Buensuceso (2023), the majority of the master teachers, 9 or 47 percent, have a length of service of 6 -10 years.

School Level Assignment. The result revealed that the highest percentage of level of school participants are teaching was elementary with 132 or 69 percent, followed by secondary 54 or 28 percent, and last in rank was senior high 6 or 3 percent. This implies that the majority of the master teachers in the division were teaching at the elementary level.

Number of Research Training Attended. The result revealed that 153 or 80 percent of the participants attended 2 or more research trainings; 26 or 14 percent, had attended one research training; and 13 or 7 percent, had not attended research training. This implies that the majority of the master teachers in the division had attended more than two research trainings. This finding is similar to the study of Lagura and Alegre (2020), where the majority of the teachers attended school, district, and division trainings.

Level of Instructional Competencies of Participants

The level of instructional competencies of the participants was content knowledge and pedagogy, classroom management, evaluation, lesson planning, and the development of learning materials. Table 3 shows the median level of instructional competencies of the participants.

Table 3. *Median level of instructional competencies of the participants*

Statement	*Median*	*Descriptive Interpretation*
Content Knowledge and Pedagogy		
1. Provide learners new ways of exploring their thinking about the concept being taught.	4.00	Very Competent
2. Teach learners to achieve the objective of each lesson.	4.00	Very Competent
3. Use problem solving scenarios to develop their problem-solving skills.	4.00	Very Competent
4. Allow learners to share ideas and take time to learn from others.	4.00	Very Competent
5. Provide appropriate teaching strategies to help learners address their difficulty.	4.00	Very Competent
Median	4.00	Very Competent
Classroom Management		
6. Maintain conducive learning classroom environment.	5.00	Highly Competent
7. Provide appropriate activities to maintain fairness in dealing with learners.	4.00	Very Competent
8. Promote learners' responsibility in the classroom practices.	5.00	Highly Competent
9. Engage learners to participate in classroom discussion.	5.00	Highly Competent
10. Use verbal praises to encourage positive behavior in the classroom.	5.00	Highly Competent
Median	5.00	Highly Competent
Evaluation		
11. Provide constructive feedback on learner's performances.	4.00	Very Competent
12. Utilize criteria for accurate evaluation of learner's performance.	4.00	Very Competent
13. Analyze and interpret test result.	4.00	Very Competent
14. Provide standard summative assessment.	4.00	Very Competent
15. Use open-ended questions to allow learners solve problems.	4.00	Very Competent
Median	4.00	Very Competent
Lesson Planning		
16. Ensure that the learning objectives are suitable to learner's level.	5.00	Highly Competent
17. Introduce background knowledge to learners.	4.00	Very Competent
18. Relate previous knowledge.	5.00	Highly Competent
19. Use motivational techniques.	5.00	Highly Competent
20. Include assessment.	4.00	Very Competent
Median	5.00	Highly Competent
Development of Teaching-Learning Materials		
21. Prepare self-learning materials based on students learning ability.	4.00	Very Competent
22. Use available resources as teaching aid.	4.00	Very Competent
23. Ensure the MELC's based alignment of learning self-learning materials.	5.00	Highly Competent
24. Prepare appropriate written task to help learners achieve the expected competency of the given topic.	4.00	Very Competent
25. The nature of learning materials cultivates learners' interest and attention.	4.00	Very Competent
Median	4.00	Very Competent
Overall Median	4.00	Very Competent

Legend: 4.50–5.00 – Highly Competent; 3.50–4.49 – Very Competent; 2.50–3.49 – Competent; 1.50–2.49 – Moderately Competent; 1.00–1.49 – Less Competent

Based on the findings, the level of instructional competencies of master teachers is "very competent," with an overall median score of 4.00.

In content knowledge and pedagogy, it obtained a median score of 4.00, which denotes "very competent" in providing learners with new ways of exploring their thinking about the concept being taught, teaching learners to achieve the objective of each lesson, using problem-solving scenarios to develop their problem-solving skills, allowing learners to share ideas and take time to learn from others, and providing appropriate teaching strategies to help learners address their difficulties. The findings imply that it is essential for the participants to be well-prepared and capable of delivering high-quality instruction in their subject area.

Regarding classroom management, four (4) indicators are highly competent with a median score of 5.00. Highly competent in maintaining a conducive learning environment, promoting learners' responsibility, engaging learners to participate in classroom discussion, and using verbal praise to encourage positive behavior in the classroom. While "very competent" in providing appropriate activities to maintain fairness in dealing with learners with a median score of 4.00. In general, classroom management is "highly competent" with a median score of 5.00. It implies that it is vital for the participants to demonstrate full competency in ensuring a seamless teaching session.

For evaluation, all indicators have a median score of 4.00 and are described as "very competent" in providing constructive feedback on learners' performances, utilizing criteria for accurate evaluation of learners' performance, analyzing and interpreting test results, providing standard summative assessment, and using open-ended questions to allow learners to solve problems. The findings imply that participants ought to design, administer, and interpret evaluations accurately and effectively.

Concerning lesson planning, participants are highly competent in ensuring that the learning objectives are suitable to the learner's level, relating previous knowledge, and using motivational techniques, with a median score a median of 5.00, which is described as "highly competent." While introducing background knowledge to learners and including assessment is very competent with a median score of 4.00. Overall median score for lesson planning is 5.00, which is described as "highly competent." These denote that participants comprehensively understand how to appropriately prepare an effective lesson plan.

And lastly, the area of development of teaching-learning materials revealed as "highly competent," with a median score of 5.00. Highly competent in ensuring the MELC's based alignment of learning self-learning materials. While others are "very competent", with a median score of 4.00, in preparing self-learning materials based on students learning abilities, using available resources as teaching aids, preparing appropriate written tasks, and cultivating learners' interest and attention.

Overall, the median score for the development of learning materials is 4.00, interpreted as "very competent." This implies that participants have a vast level of competency in the development of learning materials, yet there is still room for improvement in some aspects.

Overall, the level of instructional competencies of master teachers in the City School Division of Dasmariñas City, Cavite, is very competent. This implies that master teachers have a solid foundation to provide quality instruction to enhance student learning.

The above finding is supported by the study of Podador (2023), which confirms that master teachers used a variety of instructional approaches to enhance students thinking abilities, making them creative and focused on the topics presented throughout the teaching-learning process, as indicated by the weighted average of 4.19, interpreted as highly manifested. Furthermore, Clariño (2020) affirmed that master teachers possess an advanced level of instructional competencies.

Level of Supervisory Competencies of Participants

The supervisory competencies of the participants observation, diagnosing and solving teaching problems, mentoring and coaching, and leadership. identified among participants. Table 4 shows the median level of supervisory competencies of the participants.

The finding shows that the median score for each level of supervisory competencies is 4.00, showing that master teachers supervisory competencies are consistently very competent in all areas.

As to observation, all components were deemed "very competent," with a median score of 4.00 indicating that participants employed analyzing lesson plans, determining the teaching method used, observing classroom activities during the teaching and learning process, analyzing the results of observation, and providing constructive feedback to teachers. This implies that participants are very competent at managing observations. In addition, participants' skills and knowledge in managing classroom observation are essential to effectively carrying out the tasks.

With regards to diagnosing and solving teaching problems, all indicators have a median score of 4.00 which described as "very competent." The participants are very competent in assisting in developing strategies and skills, maintaining a positive attitude, providing tips to enhance classroom management, working collaboratively to resolve uncontrollable work issues, and providing a supportive environment. These findings imply that participants recognize the importance of diagnosing and solving teaching problems to enhance classroom management skills and ensure a productive teaching environment.

In relation to mentoring and coaching, all indicators exhibit a median score of 4.00, characterizing them as "very competent" in guiding

teachers in fulfilling their roles and responsibilities, assisting in designing training/development programs, providing technical assistance, conducting learning action cells, and providing support and assistance in acquiring knowledge and developing strong personalities. This finding implies that participants fulfill their role by continuously providing technical assistance to their colleagues.

Table 4. *Median level of supervisory competencies of the participants*

Statement	*Median*	*Descriptive Interpretation*
Observation		
1. Analyze lesson plan.	4.00	Very Competent
2. Determine the teaching method used.	4.00	Very Competent
3. Observe activities during teaching and learning process.	4.00	Very Competent
4. Analyze result of observation.	4.00	Very Competent
5. Provide constructive feedback.	4.00	Very Competent
Median	4.00	Very Competent
Diagnosing and solving teaching problems		
6. Assist teachers in developing their strategies and skills.	4.00	Very Competent
7. Assist teachers in maintaining positive attitude.	4.00	Very Competent
8. Provide tips to teacher to enhance classroom management.	4.00	Very Competent
9. Work collaboratively to resolve uncontrollable work issues.	4.00	Very Competent
10. Provide supportive environment.	4.00	Very Competent
Median	4.00	Very Competent
Mentoring and Coaching		
11. Guide teachers in fulfilling their roles and responsibilities.	4.00	Very Competent
12. Assist teachers in designing training/development programs.	4.00	Very Competent
13. Provide technical assistance to improve teachers teaching skills.	4.00	Very Competent
14. Conduct learning action cell.	4.00	Very Competent
15. Provide support and assistance in acquiring knowledge and developing strong personalities.	4.00	Very Competent
Median	4.00	Very Competent
Leadership		
16. Lead teachers in the preparation and enrichment of curriculum.	4.00	Very Competent
17. Lead colleagues in the design, evaluation, interpretation of different types of assessment tools for the improvement of the teaching and learning process.	4.00	Very Competent
18. Lead to be part of extracurricular duties/ancillary task.	4.00	Very Competent
19. Lead in the delivery of high quality of instruction.	4.00	Very Competent
20. Propose innovative strategies to improve learning outcomes.	3.50	Very Competent
Median	4.00	Very Competent
Overall Median	4.00	Very Competent

Legend: 4.50–5.00 – Highly Competent; 3.50–4.49 – Very Competent; 2.50–3.49 – Competent; 1.50–2.49 – Moderately Competent; 1.00–1.49 – Less Competent

Regarding leadership, not all indicators display a median score of 4.00 characterized as "very competent" in leading teachers in the preparation and enrichment of curriculum, leading colleagues in the design, evaluation, and interpretation of different types of assessment tools for the improvement of the teaching and learning process, leading to being part of extracurricular duties or ancillary tasks, and leading in the delivery of high-quality instruction. The exception lies in proposing innovative strategies to improve learning outcomes, which has a median score of 3.50 interpreted as "very competent." This suggests a variation in the effectiveness of leadership responsibilities.

Overall, the level of supervisory competency of the master teachers in the City Schools Division of Dasmariñas City, Cavite, is very competent. This implies that supervision entails doing better in the aspects of observing and assessing teaching practices, diagnosing and solving teaching problems, providing effective mentoring and coaching, and demonstrating strong leadership skills. These competencies provide a supportive platform for colleagues.

This finding aligns with Wanasinghe and Nawastheen's (2020), which highlight the need to improve teaching practice under the supervision of master teachers based on the varied responses of respondents. The findings suggest further improvement in the supervision of teaching practice stage 1. Hence, addressing the need for improvement in supervisory competencies could contribute to the overall quality of the teaching practices of master teachers.

Level of Research Productivity of the Participants

The level of research productivity of the participants was determined by the research completed, the research presented, and the research published. Table 5 shows the median level of research productivity of the participants.

The findings show that most of the participants completed research on the theme "teaching and learning," with the highest median score of 4.00 interpreted as "very productive." The theme of "child protection, human resources and development, and governance" received a median score of 3.00, interpreted as "productive." In contrast, the "others" theme received a median score of 1.00, interpreted as "less productive." The overall research completion of the participants is deemed "productive," as revealed by the data, with a median

score of 3.00. This finding implies that most of the master teachers relatively completed their research.

Table 5. *Median level of research productivity*

Statement	*Median*	*Descriptive Interpretation*
Research Completed		
1. Teaching and learning	4.00	Very Productive
2. Child protection	3.00	Productive
3. Human Resource and Development	3.00	Productive
4. Governance	3.00	Productive
5. Others	1.00	Less Productive
Median	3.00	Productive
Research presented		
6. School level	3.00	Productive
7. Division Level	3.00	Productive
8. Regional Level	1.00	Less Productive
9. National Level	1.00	Less Productive
10. International Level	1.00	Less Productive
Median	1.00	Less Productive
Research published		
11. Local recognized journal	1.00	Less Productive
12. International recognized journal	1.00	Less Productive
13. Sole author	1.00	Less Productive
14. Co-author	1.00	Less Productive
Median	1.00	Less Productive
Overall Median	1.00	Less Productive

Legend: 4.50–5.00 – Highly Productive; 3.50–4.49 – Very Productive; 2.50–3.49 – Productive; 1.50–2.49 – Moderately Productive; 1.00–1.49 – Less Productive

In the area of research presentation, most of the participants presented their research at the school and division level, with a median score of 3.00, interpreted as "productive." However, when it comes to presentations at regional, national, and international levels, the results show they are "less productive," as reflected in the median score of 1.00. The overall median score of the research presentation is 1.00, interpreted as "less productive." This implies that the division of Dasmarinas should make an effort to encourage master teachers to present their research at regional, national, and international levels.

Additionally, research published in local or internationally recognized journals, and published as sole author or co-author also received a median score of 1.00, indicating it was "less productive." The median score for the research published category was revealed to be 1.00, which is described as "less productive." This finding implies that the School Division of Dasmarinas must improve their research publication process to level up the spreading of ideas and findings to others.

Overall, the level of research productivity of master teachers in the City School Division of Dasmariñas City, Cavite, is "less productive," as revealed by the overall median score of 1.00. This implies that the city school's division of Dasmarinas should improve research productivity across all domains to inspire and empower master teachers to actively engage in research work locally and internationally.

Manila et al. (2022) emphasize that the conduct of research is vital to helping improve and transform educational practices, serving as an indicator to support the capacity for innovation. Furthermore, Acuna (2020) explains that participants can do research presentations from the district level up to the regional level.

Comparison among the instructional competencies when grouped according to participants'socio-demographic profile

This section presents the comparison among the instructional competencies when grouped according to participants socio-demographic profile. In order to determine the comparison among the instructional competencies when grouped according to the socio-demographic profile of the respondents, mean rank, Kruskal-Wallis statistics, and p-value were performed as shown in Tables 6-11.

Age. The analysis of comparisons of the instructional competencies when grouped according to age is shown in Table 6.

According to the data, the overall result revealed no significant differences in the instructional competencies when grouping according to age, with an overall computed H value of 4.999 and a p-value of 0.082. The null hypothesis was confirmed to be accepted.

There were no significant differences noted between age and the three indicators of instructional competencies such as content knowledge and pedagogy (H = 3.356, p-value = 0.187), lesson planning (H = 3.598, p-value = 0.165), and the development of teaching-learning materials (H = 5.613, p-value = 0.060), indicating acceptance of the null hypothesis. While classroom management (H = 6.182, p-value = 0.045) and evaluation (H = 6.041, p-value = 0.049) exhibit a rejection of the hypothesis, indicating a significant difference among age groups in these indicators.

In classroom management, age group 26 to 44 years old got the highest mean rank of 106.30 a, followed by 45 to 59 years old, which

has a mean rank of 94.84 ab, and lastly, age group 60 years old and above, with a mean rank of 67.92 b. The significant difference between instructional competencies and age may mean that age can affect classroom management practices. This implies that the younger participants (26 to 44 years old) are more responsible for promoting classroom practices than the older participants (60 years old and above).

Table 6. *Comparison of the instructional competencies when grouped according to age*

Level Of Instructional Competencies	*Age*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	26 to 44	102.29			
	45 to 59	96.19	3.356	0.187	Accept Ho
	60 and above	72.67			
	26 to 44	106.30 a			
Classroom Management	45 to 59	94.84 ab	6.182	0.045	Reject Ho
	60 and above	67.92 b			
	26 to 44	107.98 a			
Evaluation	45 to 59	93.74 ab	6.041	0.049	Reject Ho
	60 and above	71.42 b			
	26 to 44	103.33			
Lesson Planning	45 to 59	95.66	3.598	0.165	Accept Ho
	60 and above	73.33			
	26 to 44	108.00			
Development of Teaching-Learning Materials	45 to 59	93.50	5.613	0.060	Accept Ho
	60 and above	73.83			
	26 to 44	105.65			
Overall	45 to 59	94.84	4.999	0.082	Accept Ho
	60 and above	70.96			

Mean rank followed by a common letter are not significant at 5% level

In terms of evaluation, the aged group of 26 to 44 years old got the highest mean rank of 107.98 a, followed by 45 to 59 years old, which has a mean rank of 93.74 ab, and lastly, age 60 years old and above, with a mean rank of 71.42 b. The significant difference between instructional competencies and age may mean that age can affect evaluation practices. This implies that the younger participants (26 to 44 years old) performed better in providing precise evaluations than the older participants (60 years old and above).

The overall findings indicate that age has no significant role in the instructional competencies of master teachers. However, there are significant differences in classroom management and evaluation indicators. This implies that the difference in age is a significant factor that could influence other aspects of the instructional competencies, specifically in the classroom management and evaluation.

The findings are the same as the findings of Buensuceso (2023), who found that there is no significant difference in the instructional competencies of master teachers when grouped according to age. The findings indicated that regardless of master teachers' age, they possess a relatively constant level of instructional competence. The same result was found in the study of Asis, Caballes, and Ortiz Jr. (2023), that there was no significant difference in any domain of instructional competence between age groups.

Sex. The analysis of the comparison of the instructional competencies when grouped according to sex is presented in Table 7.

Table 7. *Comparison of the instructional competencies when grouped according to sex*

Level Of Instructional Competencies	*Sex*	*Mean Rank*	*Mann-Whitney U Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	Male	84.75	2570.000	0.101	Accept Ho
	Female	99.59			
Classroom Management	Male	85.10	2584.000	0.106	Accept Ho
	Female	99.50			
Evaluation	Male	84.46	2558.500	0.095	Accept Ho
	Female	99.67			
Lesson Planning	Male	83.49	2519.500	0.067	Accept Ho
	Female	99.92			
Development Of Teaching-Learning Materials	Male	88.83	2733.000	0.286	Accept Ho
	Female	98.52			
Overall	Male	87.34	2673.500	0.199	Accept Ho
	Female	98.91			

Mean rank followed by a common letter are not significant at 5% level

The table above showed that there are no significant differences in the overall result of the instructional competencies of master teachers when grouped according to sex, as the statistical analysis revealed that the U value is 2673.500 and the p-value is 0.199. Indicating that the null hypothesis is accepted.

Based on the data, the instructional competencies of master teachers in content knowledge and pedagogy (U = 2570.00, p-value =

0.101), classroom management (U = 2558.500, p-value = 0.095), lesson planning (U = 2519.500, p-value = 0.067), and development of teaching-learning materials (U = 2733.00, p-value = 0.286) were found to have no significant difference. Indicating that the null hypothesis is accepted.

The findings indicate that sex is not dependent on the instructional competencies of master teachers. This implies that regardless of gender, it has no direct influence on instructional competencies.

The findings of this study support the finding of Buensuceso (2023) that the instructional competence of a master teacher is not dependent on gender. Thus, master teacher instructional competencies are not solely influenced by gender.

Highest educational attainment. The analysis of the comparison of the instructional competencies when grouped according to highest educational attainment is provided in Table 8.

Table 8. *Comparison of the instructional competencies when grouped according to highest educational attainment*

Level Of Instructional Competencies	*Highest Educational Attainment*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	Bachelors' Degree	113.03 a	21.502	0.000	Reject Ho
	Masters' Degree	79.66 b			
	Doctorate Degree	116.20 a			
Classroom Management	Bachelors' Degree	113.64 a	19.602	0.000	Reject Ho
	Masters' Degree	80.71 b			
	Doctorate Degree	108.80 a			
Evaluation	Bachelors' Degree	113.27 b	14.173	0.001	Reject Ho
	Masters' Degree	83.60 b			
	Doctorate Degree	96.18ab			
Lesson Planning	Bachelors' Degree	108.56 a	14.216	0.001	Reject Ho
	Masters' Degree	83.10 b			
	Doctorate Degree	116.25 a			
Development of Teaching-Learning Materials	Bachelors' Degree	111.89 a	13.529	0.001	Reject Ho
	Masters' Degree	83.31 b			
Overall	Bachelors' Degree	112.49 A	17.728	0.000	Reject Ho
	Masters' Degree	81.26 b			
	Doctorate Degree	110.48 a			

Mean rank followed by a common letter are not significant at 5% level

The above data discloses that there is a significant difference in the instructional competencies of master teachers when grouped according to highest educational attainment. The findings are supported by the overall H value of 17.728 and the p-value of 0.00. Consequently, the null hypothesis is rejected.

Based on the results, all the indicators, including content knowledge and pedagogy (H = 21.502, p-value = 0.00), classroom management (H = 19.602, p-value = 0.000), evaluation (H = 14.173, p-value = 0.001), lesson planning (H = 14.216, p-value = 0.001), and development of teaching-learning materials (H = 13.529, p-value = 0.001), were found to have credible evidence of a significant difference in the instructional competencies in terms of educational attainment, which denotes rejection of the null hypothesis.

Among educational attainment, the doctorate degree has the highest mean rank of 116.20 a in content knowledge and pedagogy and 116.25 a in lesson planning. The bachelor's degree was just behind, with a mean rank of 113.03 a, and 108.56 a, respectively. The lowest is the master's degree, with a mean rank of 79.66 b and 83.10 b, respectively. However, in classroom management, evaluation, and development of teaching-learning materials, the overall result revealed that bachelors' degrees are the highest, with a mean rank of 113.64 a, 113.27 b, 111.89 a, and 112.49 a respectively. Followed by a doctorate degree with a mean rank of 108.80 a, 96.18 ab, 102.75 ab, and 110.48 a, respectively.

On the other hand, a master's degree has the lowest mean rank of 80.71 a, 83.60 b, 83.31 b, and 81.26 b, respectively. Denotes rejection of the null hypothesis. The result of this study proves that master teachers' educational attainment affects their instructional competencies. The findings may imply that other factors, such as the quality and effectiveness of the master's degree program acquired, could affect the delivery of effective instruction.

The finding was found to be opposite to the findings of Buensuceso (2023), that there was no significant difference on the instructional competence of master teachers in terms of educational attainment. Suggesting that education does not have a strong influence on instruction, individuals of different educational levels can still display the same level of competence in the instructional area. Similar findings were revealed in the study by Asis et al. (2023), pointing out that there was no significant difference in instructional competence as compared to the educational attainment of teachers. Implying that regardless of educational attainment, the instructional competence of teachers in terms of instructional delivery, classroom management, assessment, and personal competencies is the same. Nevertheless, Clariño (2020) recommended that master teachers should at all times sustain their level of instructional and professional competence through attending graduate school programs, participation in workshops and conference, and engagement in various trainings.

Length of service as a master teacher. The analysis of the comparison of the instructional competencies when grouped according to length of service as a master teacher is revealed in Table 9.

Table 9. *Comparison of the instructional competencies when grouped according to length of service as a master teacher*

Level Of Instructional Competencies	*Length Of Service As Master Teacher*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	5 and below	105.99			
	6 to 10	80.14			
	11 to 15	93.61	6.516	0.164	Accept Ho
	16 to 20	96.85			
	21 and above	95.50			
Classroom Management	5 and below	105.12			
	6 to 10	85.35			
	11 to 15	88.91	4.774	0.311	Accept Ho
	16 to 20	90.38			
	21 and above	96.95			
Evaluation	5 and below	102.96			
	6 to 10	76.47			
	11 to 15	98.70	7.470	0.113	Accept Ho
	16 to 20	107.04			
	21 and above	98.07			
Lesson Planning	5 and below	104.35			
	6 to 10	80.47			
	11 to 15	90.48	6.033	0.197	Accept Ho
	16 to 20	98.31			
	21 and above	99.20			
Development of Teaching-Learning Materials	5 and below	105.85 ab			
	6 to 10	80.26 ab			
	11 to 15	78.41 b	9.786	0.044	Reject Ho
	16 to 20	103.08 a			
	21 and above	101.74 ab			
Overall	5 and below	104.92			
	6 To 10	80.36			
	11 To 15	88.89	6.477	0.166	Accept Ho
	16 to 20	100.42			
	21 And Above	98.53			

Mean rank followed by a common letter are not significant at 5% level

Based on the overall statistical results, showed there are no significant differences in the instructional competencies of master teachers when grouped according to length of service. The findings are supported by an overall H value of 6.477 and a p-value of 0.166. As a result, the null hypothesis is accepted.

As per the data, four indicators of instructional competencies were found to have no significant difference on content knowledge and pedagogy (H = 6.516, p-value = 0.164), classroom management (H = 4.774, p-value = 0.311), evaluation (H = 7.470, p-value 0.113), and lesson planning (H = 6.033, p-value = 0.197). Given the acceptance of the null hypothesis.

However, there were significant differences revealed in the development of teaching-learning materials (H = 9.786, p-value = 0.044). The null hypothesis is rejected. It was found that the highest mean rank of 103.08 a was obtained by the participants whose length of service is within 16 to 20 years, followed by 5 years and below, who have a mean rank of 105.85 ab. Next, those who are 21 years and above with a mean rank of 101.74 ab. The second-lowest rank is those with 6 to 10 years of service, with a mean rank of 80.26 ab. Finally, those with 11 to 15 years in service had the lowest mean rank of 78.41 b. The findings imply that length of service might influence the ability of master teachers to develop teaching-learning materials. This suggests that there is a need to follow strict adaptations to the implementation of coaching and mentoring in the development of teaching-learning materials for master teachers across all service lengths.

The findings align with the claims of Pasyon and Tantiado (2020), that years of teaching experience are not a factor in determining whether a teacher is considered to be poor. In addition, Graham et al. (2020) study adds to the evidence by examining associations between teachers' years of experience and teaching quality. Based on the findings, the results show no evidence of lower teaching quality for beginning teachers.

Nonetheless, the overall findings of this study imply that the instructional competencies of master teachers do not depend on length of service. The findings are similar to those of Buensuceso (2023), who found that the instructional competence of master teachers has no significant difference in terms of length of service.

School level assignment. The analysis of the comparison of the instructional competencies when grouped according to the school level of assignment is presented in Table 10.

Table 10. *Comparison of the instructional competencies when grouped according to the school level of assignment*

Level Of Instructional Competencies	*School Level*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	Elementary	93.29	1.910	0.385	Accept Ho
	Junior High School	102.52			
	Senior High School	113.00			
Classroom Management	Elementary	94.65	1.647	0.439	Accept Ho
	Junior High School	98.33			
	Senior High School	120.67			
Evaluation	Elementary	92.34	3.083	0.214	Accept Ho
	Junior High School	104.44			
	Senior High School	116.58			
Lesson Planning	Elementary	92.19	4.037	0.133	Accept Ho
	Junior High School	108.09			
	Senior High School	86.92			
Development Of Teaching-Learning Materials	Elementary	91.95	3.427	0.180	Accept Ho
	Junior High School	105.83			
	Senior High School	112.50			
Overall	Elementary	93.95	1.242	0.538	Accept Ho
	Junior High School	101.21			
	Senior High School	110.25			

Mean rank followed by a common letter are not significant at 5% level

Table 10 shows that there is no significant difference in the instructional competencies when grouped according to the school level of assignment, as indicated by an overall H value of 1.242 and a p-value of 0.538, leading to the acceptance of the null hypothesis.

Based on the above data, it is observed that there are no significant differences in all indicators of instructional competencies, including content knowledge and pedagogy (H = 1.910, p-value = 0.385), classroom management (H = 1.647, p-value = 0.439), evaluation (H = 3.083, p-value = 0.214), lesson planning (H = 4.037, p-value = 0.133), and development of teaching-learning materials (H = 3.427, p-value = 0.180) in terms of school level of assignment. Leading to accepting the null hypothesis.

The findings indicate that the instructional competencies of master teachers do not vary regardless of the school level of assignment. This implies that maintaining equal instructional competencies across different school levels of assignment could help maintain quality teaching.

According to Abueva (2023), education is one of the keys to our country's development and a necessary improvement, given that improved educational quality is always essential to our nation's success. Both the findings and the Abueva 2023 statement emphasize the importance of the quality of teaching. School administrators should continuously provide development programs to master teachers to ensure that they are equipped to deliver quality education across different school levels.

Number of research trainings attended. The analysis of the comparison of the instructional competencies when grouped according to the number of research training attended is introduced in Table 11.

Table 11. *Comparison of the instructional competencies when grouped according to the number of research trainings attended*

Level Of Instructional Competencies	*Number Of Research Training Attended*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Content Knowledge and Pedagogy	None	80.23	1.892	0.388	Accept Ho
	One	104.00			
	two and above	96.61			
Classroom Management	None	80.54 b	6.387	0.041	Reject Ho
	One	117.92 a			
Evaluation	two and above	94.22 b	2.280	0.320	Accept Ho
	None	90.46			
	One	110.37			
	two and above	94.66			
Lesson Planning	None	82.23	2.562	0.278	Accept Ho
	One	108.52			
	two and above	95.67			
Development of Teaching-Learning Materials	None	81.12 b			

	One	119.83 a			
	two and above	93.84 b			
Overall	None	84.15			
	One	115.42	4.668	0.097	Accept Ho
	Two And Above	94.33			

Mean rank followed by a common letter are not significant at 5% level

The findings in Table 11 revealed that there is no significant difference in the instructional competencies of master teachers in terms of the number of research trainings attended, as evident in the overall H value of 4.668 and p-value of 0.097, leading to the acceptance of the null hypothesis. Specifically, when examining content knowledge and pedagogy (H = 1.892, p-value = 0.388), evaluation (H = 2.280, p-value = 0.320), and lesson planning (H = 2.562, p-value = 0.278), it was found to have no significant differences. The null hypothesis is accepted. Whereas classroom management (H = 6.387, p-value 0.041) and the development of teaching-learning materials (H = 6.995, p-value = 0.030) have significant differences, leading to the rejection of the null hypothesis.

In the classroom management indicator, it is found that the majority of the master teachers attended only one research training course, resulting in the highest mean rank of 117.92 a. Following this, those who attended two and above research training had a mean rank of 94.22 b, while those who did not attend research training had the lowest mean rank of 80.54 b. Similarly, in the aspect of the development of teaching-learning materials, those who attended only one research training got the highest mean rank of 119.83 a, followed by those who attended two or more research trainings with a mean rank of 93.84 b, and those without research training ranked the lowest with a mean rank of 93.84 b.

This claim claims that the number of research trainings attended has no direct influence on the instructional competencies of master teachers. However, there is an observed influence on the instructional competencies of master teachers who attend at least one research training, both in classroom management and the development of teaching-learning materials indicators. This may mean that participation in research-related training on classroom management and the developing of teaching-learning materials are highly important to enhance instructional competencies.

Comparison among the supervisory competencies when grouped according to participants' socio-demographic profile

This section presents the comparison among the supervisory competencies when grouped according to participants' socio-demographic profiles. To determine the comparison among the supervisory competencies when grouped according to the socio-demographic profile of the respondents, mean rank, Kruskal-Wallis statistics, and p-value were used.

Table 12-17 show the analysis focuses on the supervisory competencies of observation, developing and solving teaching problems, mentoring and coaching, leadership, and overall analysis.

The results are as follows:

Age. The analysis of the comparison of the supervisory competencies when grouped according to age is shown in Table 12.

Table 12. *Comparison of the supervisory competencies when grouped according to age*

Level Of Supervisory Competencies	*Age*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Observation	26 to 44	101.25	1.520	0.468	Accept Ho
	45 to 59	95.79			
	60 and above	81.63			
Diagnosing And Solving Teaching Problems	26 to 44	104.84	3.100	0.212	Accept Ho
	45 to 59	94.40			
	60 and above	79.29			
Mentoring And Coaching	26 to 44	104.75	2.273	0.321	Accept Ho
	45 to 59	93.82			
	60 and above	85.71			
Leadership	26 to 44	106.20	4.406	0.110	Accept Ho
	45 to 59	94.29			
	60 and above	74.13			
Overall	26 To 44	103.70	1.863	0.394	Accept Ho
	45 To 59	94.43			
	60 And Above	84.33			

Mean rank followed by a common letter are not significant at 5% level

According to the data presented above, the test statistics revealed that there is no significant difference in the supervisory competencies when grouped according to age, with an overall computed H value of 1.863 and p-value of 0.394, leading to acceptance of the null hypothesis.

Based on the data, all indicators of supervisory competencies, such as observation (H = 1.520, p-value = 0.486), diagnosing and solving problems (H = 3.100, p-value = 0.212), mentoring and coaching (H = 2.273, p-value = 0.321), and leadership (H = 4.406, p-value =

0.110), were found to have no significant difference. Hence, the null hypothesis is accepted.

The overall findings indicate that age has no influence on the supervisory competencies of master teachers. This may mean that differences in age are not an influential factor in supervisory competencies. However, Matias (2023) suggests that technical assistance should be provided to those who are at the peak of adulthood to help them perform their duties and responsibilities at their best.

Sex. The analysis of the comparison of supervisory competencies when grouped according to sex is presented in Table 13.

Table 13. *Comparison of the supervisory competencies when grouped according to sex*

Level Of Supervisory Competencies	*Sex*	*Mean Rank*	*Mann-Whitney U Statistics*	*P Value*	*Remarks*
Observation	Male	87.96	2698.500	0.236	Accept Ho
	Female	98.75			
Diagnosing And Solving Teaching Problems	Male	86.59	2643.500	0.165	Accept Ho
	Female	99.11			
Mentoring And Coaching	Male	84.96	2578.500	0.113	Accept Ho
	Female	99.54			
Leadership	Male	83.09	2503.500	0.066	Accept Ho
	Female	100.03			
Overall	Male	86.31	2632.500	0.171	Accept Ho
	Female	99.18			

Mean rank followed by a common letter are not significant at 5% level

The analysis presented in Table 13 shows that there is no significant difference in supervisory competencies when grouped according to sex, as revealed by the overall U value of 2632.500 and p-value of 0.171, leading to the acceptance of the null hypothesis.

As grounded in the data, all indicators of supervisory competencies, such as observation (U = 2698.500, p-value = 0.236), diagnosing and solving teachers' problems (U = 2643.500, p-value = 0.165), mentoring and coaching (U = 2578.500, p-value = 0.113), and leadership (U = 2503.500, p-value = 0.066), were found to have no significant difference. Therefore, the hypothesis is accepted.

The findings show that there is no rejection of supervisory competencies between male and female master teachers in the specified components. This implies that sex may not be a substantial factor in influencing the supervisory competencies of master teachers.

A similar result was revealed in the study of Chen XI (2023), that there is no significant difference in the organizational operation of aesthetic education based on sex.

Highest educational attainment. The analysis of the comparison of the supervisory competencies when grouped according to highest educational attainment is revealed in Table 14.

Table 14. *Comparison of the supervisory competencies when grouped according to highest educational attainment*

Level Of Supervisory Competencies	*Highest Educational Attainment*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Observation	Bachelors' Degree	112.46 a	15.487	0.000	Reject Ho
	Masters' Degree	82.24 b			
	Doctorate Degree	105.80 a			
Diagnosing And Solving Teaching Problems	Bachelors' Degree	110.95 a	15.043	0.001	Reject Ho
	Masters' Degree	82.43 b			
	Doctorate Degree	110.55 a			
Mentoring And Coaching	Bachelors' Degree	108.71 a	10.525	0.005	Reject Ho
	Masters' Degree	84.49 b			
	Doctorate Degree				
Leadership		108.93 a	15.455	0.000	Reject Ho
	Bachelors' Degree	111.59 a			
	Masters' Degree	81.92 b			
	Doctorate Degree	110.60 a			
Overall	Bachelors' Degree	113.47 A	16.620	0.000	Reject Ho
	Masters' Degree	81.22 B			
	Doctorate Degree	106.98 A			

Mean rank followed by a common letter are not significant at 5% level

The data analysis presented in Table 14 revealed that there is a significant difference in supervisory competencies in terms of highest educational attainment. This is supported by the H values of 16.620 and the p-value of 0.000, leading to the rejection of the null hypothesis.

Reflecting the above data, all indicators of supervisory competence, such as observation (H = 15.487, p-value = 0.000), diagnosing and solving teaching problems (H = 15.403, p-value = 0.001), mentoring and coaching (H = 10.525, p-value = 0.005), and leadership (H = 15.455, p-value = 0.000), resulted in a significant difference. Thus, the null hypothesis is rejected.

Among educational attainment, a bachelor's degree has the highest mean rank of 112.46a in observation, 110.95a in diagnosing and solving teaching problems, and 111.59 a in leadership. The doctorate degree was next in rank with a mean rank of 105.80 a, 110.55 a, and 110.60 a respectively, and the lowest was the master's degree with a mean rank of 82.24 b, 82.43 b, and 81.92 b, respectively. However, in mentoring and coaching, the doctorate degree is the highest, with a mean rank of 108.93 a, followed by the bachelors' degree with a mean rank of 108.71 a, and the master's degree with a mean rank of 84.49 b. Denotes rejection of the null hypothesis. The result of this study proves that educational attainment affects supervisory competencies. The findings imply that having higher educational attainment does not necessarily mean being competent in supervision. Thus, administrators should provide professional development focused on enhancing supervisory competencies at all levels of educational attainment.

The results of this study find support in the study of Acuña (2020), as she stated that higher levels of educational attainment provide more opportunities for knowledge acquisition and higher competencies.

Length of service as a master teacher. The analysis of the comparison of the supervisory competencies when grouped according to length of service as a master teacher is presented in Table 15.

Table 15. *Comparison of the supervisory competencies when grouped according to length of service as master teacher*

Level Of Supervisory Competencies	*Length Of Service*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Observation	5 and below	100.93	7.279	0.122	Accept Ho
	6 to 10	78.53			
	11 to 15	89.59			
	16 to 20	109.31			
	21 and above	103.89			
Diagnosing And Solving Teaching Problems	5 and below	102.09	5.972	0.201	Accept Ho
	6 to 10	78.78			
	11 to 15	94.65			
	16 to 20	100.96			
	21 and above	101.52			
Mentoring And Coaching	5 and below	100.19	3.423	0.490	Accept Ho
	6 to 10	83.53			
	11 to 15	92.61			
	16 to 20	103.92			
	21 and above	100.95			
Leadership	5 and below	99.71	1.289	0.863	Accept Ho
	6 to 10	89.84			
	11 to 15	90.96			
	16 to 20	100.46			
	21 and above	98.36			
Overall	5 And Below	101.65	4.601	0.331	Accept Ho
	6 To 10	81.39			
	11 To 15	90.74			
	16 To 20	100.54			
	21 And Above	102.25			

Mean rank followed by a common letter are not significant at 5% level

The data presented above shows that the supervisory competencies of master teachers have no significant difference in length of service, as reflected in the overall result of H values of 4.601 and a p-value of 0.331, causing acceptance of the null hypothesis.

All indicators of supervisory competencies, such as observation (H = 7.279, p-value = 0.122), diagnosing and solving teachers' problems (H = 5.972, p-value = 0.201), mentoring and coaching (H = 3.423, p-value = 0.005), and leadership (H = 15.455, p-value = 0.490), were found to have no significant difference, resulting in accepting the null hypothesis.

The findings mean that the supervisory skills of master teachers have no bearing on how long they have been in service. This may imply that both new and experienced master teachers are competent at supervision.

This concept is supported by Acuña (2020) findings of the study, as she stated that teachers and administrators longer years in service do not affect their competency. The findings propose that administrators provide more training to master teachers to sustain their level of supervisory competence.

School level assignment. The analysis of the comparison of the supervisory competencies when grouped according to school level of assignment is in Table 16.

As presented in Table 16, the result shows that there is no significant difference in supervisory competencies in terms of length of service, as reflected in the overall result of H values of 3.173 and a p-value of 0.205, causing acceptance of the null hypothesis.

It is observed that all indicators of supervisory competencies, such as observation (H = 5.685, p-value = 0.058), diagnosing and solving

teachers' problems (H = 2.287, p-value = 0.319), mentoring and coaching (H = 1.762, p-value = 0.414), and leadership (H = 1.795, p-value = 0.408), were found to have no significant difference, resulting in accepting the null hypothesis.

Table 16. *Comparison of the supervisory competencies when grouped according to school level of assignment*

Level Of Supervisory Competencies	*School Level*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Observation	Elementary	90.92	5.685	0.058	Accept Ho
	Junior High School	106.98			
	Senior High School	124.92			
Diagnosing And Solving Teaching Problems	Elementary	92.83	2.287	0.319	Accept Ho
	Junior High School	103.95			
	Senior High School	110.17			
Mentoring And Coaching	Elementary	93.85	1.762	0.414	Accept Ho
	Junior High School	100.53			
	Senior High School	118.58			
Leadership	Elementary	93.13	1.795	0.408	Accept Ho
	Junior High School	104.19			
	Senior High School	101.50			
Overall	Elementary	92.08	3.173	0.205	Accept Ho
	Junior High School	105.16			
	Senior High School	115.83			

Mean rank followed by a common letter are not significant at 5% level

The findings indicate that the supervisory competencies of master teachers remain unaffected by the school levels which they teach. This implies that supervisory competencies are applicable to all school levels.

Similar findings revealed in the study of Yıldız (2020) were found to have no significant difference based on grade level in the motivation of primary school teachers in relation to different variables.

Number of research trainings attended. The analysis of the comparison of the supervisory competencies when grouped according to school level of assignment is presented in Table 17.

Table 17. *Comparison of the supervisory competencies when grouped according to the number of research trainings attended*

Level Of Supervisory Competencies	*Number Of Research Trainings Attended*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Observation	None	82.62			
	One	110.21	2.901	0.234	Accept Ho
	two and above	95.35			
Diagnosing And Solving Teaching Problems	None	97.35			
	One	104.58	0.785	0.675	Accept Ho
	two and above	95.06			
Mentoring And Coaching	None	88.04	0.793	0.673	Accept Ho
	One	103.21			
	two and above	96.08			
Leadership	None	95.54	2.341	0.310	Accept Ho
	One	110.96			
	two and above	94.12			
Overall	None	87.50	1.312	0.519	Accept Ho
	One	106.29			
	Two And Above	95.60			

Mean rank followed by a common letter are not significant at 5% level

The statistical analysis presented in Table 17 revealed that there is no significant difference in the supervisory competencies when grouped according to the number of research trainings attended, with an overall computed H value of 1.312 and a p-value of 0.519. The null hypothesis is accepted.

All supervisory competencies, including observation (H = 2.901, p-value = 0.234), diagnosing and solving teaching problems (H = 0.785, p-value = 0.675), mentoring and coaching (H = 0.793, p-value = 0.673), leadership (H = 2.341, p-values = 0.310), and the overall result of analysis (p-value = 0.519), have a significant difference. The null hypothesis is accepted.

The outcome signifies that the number of research training does not have a significant impact on the supervisory skills of master teachers. This implies that supervisory competencies do not depend on the number of research trainings attended.

This study differs from the Pyhältö, Tikkanen and Anttila (2022) study, where the result shows that engaging in supervisory

development activities was also related to perceived supervisory competence.

Comparison among the components of research productivity when grouped according to participants' socio-demographic profile

This section presents the comparison in among the components of research productivity when grouped according to participant socio-demographic profiles. To determine the comparison in research productivity when grouped according to the socio-demographic profile of the respondents, mean rank, Kruskal-Wallis statistics, and p-value were used.

The analysis focuses on the research productivity of research completed, research presentation, and research publication, as shown in Tables 18-23.

The results are as follows:

Age. The analysis of the comparison of the research productivity when grouped according age is shown in Table 18.

Table 18. *Comparison of the research productivity when grouped according to age*

Level Of Research Productivity	*Age*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Research Completed	26 to 44	77.00 b	10.772	0.005	Reject Ho
	45 to 59	104.96 a			
	60 and above	100.13 ab			
Research Presentation	26 to 44	93.61	3.224	0.199	Accept Ho
	45 to 59	99.67			
	60 and above	77.25			
Research Publication	26 to 44	99.45	0.316	0.854	Accept Ho
	45 to 59	95.46			
	60 and above	93.46			
Overall	26 to 44	94.80	2.940	0.230	Accept Ho
	45 to 59	99.34			
	60 And Above	75.08			

Mean rank followed by a common letter are not significant at 5% level

Table 18 shows no significant difference in research productivity when grouped according to age, with an overall computed H value of 2.940 (p-value of 0.230), leading to the rejection of the null hypothesis.

Similarly, there is no significant difference between the two indicators of research productivity: research presentation (H = 3.224, p-value = 0.199) and research publication (H = 0.316, p-value = 0.854). The null hypothesis is accepted. While in the research completed, it was found to have a significant difference with a computed H value of 10.772 and a p value of 0.005, leading to the rejection of the null hypothesis. The age group of 45 to 59 exhibits the highest mean rank of 104.96 a., followed by those aged 60 and above, who had a mean rank of 100.13 ab, and those aged 26 to 44 had the lowest, with a mean rank of 77.00 b.

The findings indicate that research productivity in terms of research publication and research presentation does not vary across ages. While in research completed varied with age. The analysis implies that the difference of age may have an effect on completing the research work.

According to the study of Manila et al. (2022), that this factor indicates poor research productivity rates among schools in the District of Mariveles.

Sex. The analysis of the comparison of the research productivity when grouped according to sex is depicted in Table 19.

Table 19. *Comparison of the research productivity when grouped according to sex*

Level Of Research Productivity	*Sex*	*Mean Rank*	*Mann-Whitney U Statistics*	*P Value*	*Remarks*
Research Completed	Male	94.34	2953.500	0.772	Accept Ho
	Female	97.07			
Research Presentation	Male	99.14	2934.500	0.668	Accept Ho
	Female	95.81			
Research Publication	Male	98.24	2970.500	0.797	Accept Ho
	Female	96.04			
Overall	Male	94.43	2957.000	0.757	Accept Ho
	Female	97.05			

Mean rank followed by a common letter are not significant at 5% level

The statistical analysis presented in Table 19 shows that there is no significant difference in the level of research productivity when grouped according to sex, with overall U value is 2957.000 (p-value =0.757), leading to the acceptance of the null hypothesis.

All indicators of research productivity, such as research competed (U = 2953.00, p-value = 0.772), research presentation (U = 2934.500, p-value = 0.668), and research publication (U = 2970.500, p-value = 0.797), have no significant difference in sex. The null hypothesis is accepted. This means that the level of research productivity of master teacher encompassing research completed, research, publication, and research presentation has no significant difference in terms of sex. The evidence implies that sex shows no notable disparity in the level of research productivity of a master teachers.

This study contradicts the study of Magnaye (2023), it was found that teachers' sex affects research productivity.

Highest educational attainment. The analysis of the comparison of the research productivity when grouped according to highest educational attainment is revealed in Table 20.

Table 20. *Comparison of the research productivity when grouped according to highest educational attainment*

Level Of Research Productivity	*Educational Attainment*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P-Value*	*Remarks*
	Bachelors' Degree	86.78			
Research Completed	Masters' Degree	104.32	4.641	0.098	Accept Ho
	Doctorate Degree	95.03			
Research Presentation	Bachelors' Degree	85.31 b	8.145	0.017	Reject Ho
	Masters' Degree	103.17 a			
	Doctorate Degree	106.13 a			
	Bachelors' Degree	91.98			
Research Publication	Masters' Degree	96.92	2.595	0.273	Accept Ho
	Doctorate Degree	111.40			
Overall	Bachelors' Degree	88.23	4.607	0.100	Accept Ho
	Masters' Degree	99.91			
	Doctorate Degree	110.98			

Mean rank followed by a common letter are not significant at 5% level

The data in Table 20 shows that there is no significant difference in research productivity when grouped according to the highest educational attainment, with computed H value of 4.607 (p-value of 0.100), leading to acceptance of the null hypothesis.

The test revealed no significant difference between research completed (H = 4.641, p-value = 0.098) and research publication (H = 2.595, p-value = 0.273). Indicating acceptance of the null hypothesis. However, in the research presentation, it was found to have a significant difference (H = 8.145, p-value = 0.017). Indicating rejection of the null hypothesis. Based on the data, the doctorate degree got the highest mean rank of (106.13 a), followed by the master's degree (103.17 a), and the bachelor's degree was the lowest (85.31 b). The findings indicate that educational attainment has influenced the research productivity of master teachers when it comes to research presentations. This implies those with higher educational attainment are proficient in presenting research from the school level to the international level.

The findings are similar to those of Henry et al. (2020), who found that age cohort, highest qualification, cluster, and track emphasis are factors affecting the research productivity of academic staff. The study proposed to maximize the research productivity of academic staff by identifying the factors influencing research productivity, followed by strategic management and a proper monitoring system.

Length of service as a master teacher. The analysis of the comparison of the research productivity when grouped according to length of service as a master teacher is shown in Table 21.

Table 21. *Comparison of the research productivity when grouped according to length of service as a master teacher*

Level Of Research Productivity	*Length Of Service As Master Teacher*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P-Value*	*Remarks*
	5 and below	74.17 b			
	6 to 10	110.34 a			
Research Completed	11 to 15	104.43 a	22.912	0.000	Reject Ho
	16 to 20	103.73 ab			
	21 and above	116.65 a			
	5 and below	89.07 b			
Research Presentation	6 to 10	116.22 a	14.629	0.006	Reject Ho
	11 to 15	106.13 ab			
	16 to 20	106.08 ab			
	21 and above	84.72 b			
Research Publication	5 and below	94.55	6.182	0.186	Accept
	6 to 10	108.45			Ho
	11 to 15	101.57			
	16 to 20	106.73			
	21 and above	84.11			
Overall	5 AND BELOW	90.41 ab	13.037	0.011	Reject Ho
	6 to 10	115.31 a			

	11 to 15	110.72 ab
	16 to 20	100.77 ab
	21 And Above	82.36 b

Mean rank followed by a common letter are not significant at 5% level

The above data shows a significant difference in research productivity when grouped according to length of service as a master teacher, with an overall computed H value of 13.037 (p-value = 0.011), leading to the rejection of the null hypothesis.

Based on the overall mean rank, 6 to 10 years of length of service as a master teacher got the highest mean rank (115.31 a), followed by those with 11 to 15 years (103.17 a), 16 to 20 years (100.77 ab), 5 years and below (90.41 ab), and the lowest, those who had served for 21 years and above (82.36 b). This means that those who have 6 to 10 years of service are more productive in completing research than those with a longer period of service.

As per data, two indicators of research productivity were found to be significant with a rejected null hypothesis. First, the research completed indicator (H = 22.912, p-value of 0.011). It shows that those whose length of service was 21 years and above gained the highest mean rank (116.65 a), followed by those 6 to 10 years (110.34 a), 11 to 15 years (104.43 a), 16 to 20 years (103.73 ab), and 5 years and below in service had the lowest mean rank (74.17 b). This means that those who have a longer period of service have completed more research than those who are new serving the position. Second, the research presentation indicator, 6 to 10 years in length of service got the highest mean rank (116.22 a), followed by 11 to 15 years (106.13 ab), 16 to 20 years (106.08 ab), 5 years and below (89.07 b), and the lowest is 21 years and above (84.72 b). This means that those who are 6 to 10 years in service are more productive in presenting research than those who are serving more than 21 years as master teachers.

In the research publication indicator, there is no significant difference, with a computed H value of 6.182 (p-value = 0.186). The null hypothesis is accepted.

The findings mean that length of service has no significant influence on research productivity, particularly in research publications. However, there is notable influence in research completed and research publication. This implies that there could be factors influencing the variation in the length of service that influence the research productivity of master teachers, specifically in completion and research presentation.

School level assignment. The analysis of the comparison of the research productivity when grouped according to school level of assignment is presented in Table 22.

Table 22. *Comparison of the research productivity when grouped according to school level of assignment*

Level Of Research Productivity	*School Level*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Research Completed	Elementary	94.78			
	Junior High School	102.67	1.534	0.464	Accept Ho
	Senior High School	78.83			
Research Presentation	Elementary	95.17	1.168	0.558	Accept Ho
	Junior High School	101.08			
	Senior High School	84.50			
Research Publication	Elementary	94.86	0.868	0.648	Accept Ho
	Junior High School	101.37			
	Senior High School	88.67			
Overall	Elementary	95.95	1.346	0.510	Accept Ho
	Junior High School	100.03			
	Senior High School	76.75			

Mean rank followed by a common letter are not significant at 5% level

The above data shows no significant difference in the research productivity when grouped according to school level of assignment, with an overall computed H value of 1.346 (p-value = 0.510), leading to the acceptance of the null hypothesis.

All indicators of research productivity such as research competed (H = 1.534, p-value = 0.464), research presentation (H = 1.168, p-value = 0.558), research publication (H = 0.868, p-value = 0.648) found to have no significant difference. The null hypothesis is accepted. This means that the components of research productivity have no significant difference in the level of school teaching.

The findings implies that teaching at varied school levels has no direct influence in being productive in the conduct of research. However, according to Uy and Callo (2023) there are still school-related factors influencing teachers' engagement in research as well as with research productivity. Hence, strategic planning and support from the school through the developed standard school support program is encouraged.

Number of research trainings attended. The analysis on the comparison of the research productivity when grouped according to number of research training attended is shown in Table 23.

The data shows no significant difference in research productivity when grouped according to the number of research trainings attended, with an overall computed H value of 1.065 (p-value = 0.587). The null hypothesis is accepted.

Table 23. *Comparison of the research productivity when grouped according to number of research training attended*

Level Of Research Productivity	*Number Of Research Training Attended*	*Mean Rank*	*Kruskal-Wallis Statistics*	*P Value*	*Remarks*
Research Completed	None	96.04	0.008	0.996	Accept Ho
	One	95.71			
	two and above	96.67			
Research Presentation	None	75.65	3.675	0.159	Accept Ho
	One	92.38			
	two and above	98.97			
Research Publication	None	83.46	1.053	0.591	Accept Ho
	One	96.04			
	two and above	97.69			
Overall	None	83.58	1.065	0.587	Accept Ho
	One	95.77			
	Two And Above	97.72			

Mean rank followed by a common letter are not significant at 5% level

All indicators of research productivity, such as research competed (H = 0.008, p-value = 0.996), research presentation (H = 3.675, p-value = 0.159), and research publication (H = 1.053, p-value = 0.591), have no significant difference. The null hypothesis is accepted. The results imply that the number of research trainings attended does not necessarily lead to an increase in the production of research.

Comparison among the components of instructional competencies

The succeeding section presents a comparison among the components of instructional competencies. In order to determine its comparison, mean rank, Friedman Statistics, and p-value were performed.

Table 24 shows the analysis of results that focuses on the components of instructional competencies: content knowledge and pedagogy, classroom management, evaluation, lesson planning, development of learning materials, and overall assessment.

The results are as follows:

Table 24. *Comparison among the components of instructional competencies*

Level Of Instructional Competencies	*Mean Rank*	*Friedman Statistics*	*P-Value*	*Remarks*
Content Knowledge and Pedagogy	2.98 ab			
Classroom Management	3.16 a			
Evaluation	2.81 b	27.143	0.000	Reject Ho
Lesson Planning	3.12 ab			
Development Of Teaching-Learning Materials	2.93 ab			

Mean rank followed by a common letter are not significant at 5% level

The findings show a significant difference among the components of instructional competencies, with a Friedman statistic of 27.143 (p-value = 0.000), leading to rejection of the null hypothesis.

Classroom management showed the highest mean rank (3.16 a), indicating that master teachers have strong skills in managing their classrooms effectively. Lesson planning was found to be the second highest (3.12 ab), followed by content knowledge and pedagogy (2.98 ab), development of teaching-learning materials (2.93 ab), and evaluation which had the lowest rank (2.81 b), but still considered at its significant level. The results indicate that the components of instructional competencies influence master teachers effectiveness. These imply that master teachers have better skills in planning lessons, understanding the subject matter, and developing effective teaching materials.

The result of the study is similar to the finding of Buensuceso (2023) that teachers' dominant domain is classroom management, with a mean rank of 2.56 and a rank of first. Additionally, the author concluded that their expertise in classroom management contributes to a conducive learning atmosphere where students feel safe, engaged, and motivated to participate.

Significant relationship between instructional and supervisory competencies; instructional competencies and research productivity; and supervisory competencies and research productivity

This section presents the significant relationship between instructional and supervisory competencies; instructional competencies and research productivity; supervisory competencies and research productivity. The Spearman Rank Correlation Coefficient is used to measure the strength and direction of the relationships, while the p-value indicates the significance of these correlations.

Tables 25-27 show the significant relationship among these three variables.

Table 25 shows the analysis of results that focuses on the significant relationship between instructional competencies and supervisory competencies.

The data shows a significant relationship between instructional competencies and supervisory competencies, with correlation ranging from 0.733 to 0.795 (p-value = 0.000). The null hypothesis is rejected.

Table 25. *Significant relationship between instructional competencies and supervisory competencies*

Level Of Supervisory Competencies	*Level Of Instructional Competencies*	*Spearman Rank Correlation Coefficient*	*P-Value*	*Remarks*
Observation	Content Knowledge and Pedagogy	0.762	0.000	Reject Ho
	Classroom Management	0.765	0.000	Reject Ho
	Evaluation	0.778	0.000	Reject Ho
	Lesson Planning	0.825	0.000	Reject Ho
	Development Of Teaching-Learning Materials	0.811	0.000	Reject Ho
	Overall	0.822	0.000	Reject Ho
Diagnosing and Solving Teaching Problems	Content Knowledge and Pedagogy	0.669	0.000	Reject Ho
	Classroom Management	0.713	0.000	Reject Ho
	Evaluation	0.748	0.000	Reject Ho
	Lesson Planning	0.740	0.000	Reject Ho
	Development Of Teaching-Learning Materials	0.727	0.000	Reject Ho
	Overall	0.764	0.000	Reject Ho
Mentoring and Coaching	Content Knowledge and Pedagogy	0.702	0.000	Reject Ho
	Classroom Management	0.758	0.000	Reject Ho
	Evaluation	0.680	0.000	Reject Ho
	Lesson Planning	0.706	0.000	Reject Ho
	Development Of Teaching-Learning Materials	0.688	0.000	Reject Ho
	Overall	0.735	0.000	Reject Ho
Leadership	Content Knowledge and Pedagogy	0.637	0.000	Reject Ho
	Classroom Management	0.683	0.000	Reject Ho
	Evaluation	0.693	0.000	Reject Ho
	Lesson Planning	0.672	0.000	Reject Ho
	Development Of Teaching-Learning Materials	0.710	0.000	Reject Ho
	Overall	0.695	0.000	Reject Ho
Overall	Content Knowledge And Pedagogy	0.733	0.000	Reject Ho
	Classroom Management	0.775	0.000	Reject Ho
	Evaluation	0.762	0.000	Reject Ho
	Lesson Planning	0.762	0.000	Reject Ho
	Development Of Teaching-Learning Materials	0.765	0.000	Reject Ho
	Overall	0.795	0.000	Reject Ho

Observation shows positive correlations with all components of instructional competencies, with overall correlations ranging from 0.762 to 0.822 (p-value = 0.000). Indicating observation play a significant role in overall instructional competencies. Similarly, diagnosing and solving teaching problems, shows positive correlations with all components of instructional competencies, with correlations ranging from 0.713 to 0.764 (p-value = 0.000). Indicating significance. Mentoring and coaching also revealed to have positive correlations with all components of instructional competencies, with correlations ranging from 0.702 to 0.735 (p-value = 0.000). Pointing to significance. This implies that mentoring and coaching exhibit a strong correlation to other components of instructional competencies and may help proficient teachers by providing technical assistance to help them improve their teaching skills. Likewise, leadership also revealed to have positive correlations with all the components of instructional competencies, with correlations ranging from 0.637 to 0.695 (p-value = 0.000). This emphasizes the importance of highly proficient teachers in leading proficient teachers to deliver high-quality teaching.

The overall analysis shows strong positive correlations in all the components of instructional competencies. This implies that master teachers who are efficient in instructional competencies are also more likely to be efficient in the area of supervisory competencies. The strong interrelationship between instructional and supervisory competencies highlights the need for master teachers to have a strong foundation in instructional and supervisory skills.

The result found support in a study by Capadngan (2020) study, it was found that teachers and school heads were all highly competent in all the aspects of instructional supervision as perceived by them and their teachers; their level of competence obtained a rating of 3.53. The result was parallel to the implication in the study of Ordovisa and Canon (2020) that the high level of performance basically means they do their tasks well and are responsible.

Table 26 presents the analysis of results that focuses on the significant relationship between instructional competencies and research productivity.

Table 26. *Significant relationship between instructional competencies and research productivity*

Level Of Research Productivity	*Level Of Instructional Competencies*	*Spearman Rank Correlation Coefficient*	*P-Value*	*Remarks*
Research Completed	Content Knowledge and Pedagogy	-0.051	0.480	Accept Ho
	Classroom Management	-0.027	0.707	Accept Ho
	Evaluation	0.025	0.726	Accept Ho
	Lesson Planning	0.001	0.991	Accept Ho
	Development Of Teaching-Learning Materials	0.021	0.775	Accept Ho
	Overall	0.010	0.895	Accept Ho
Research Presentation	Content Knowledge and Pedagogy	-0.053	0.470	Accept Ho
	Classroom Management	-0.099	0.170	Accept Ho
	Evaluation	-0.023	0.756	Accept Ho
	Lesson Planning	-0.023	0.748	Accept Ho
	Development Of Teaching-Learning Materials	-0.035	0.626	Accept Ho
	Overall	-0.031	0.673	Accept Ho
Research Publication	Content Knowledge and Pedagogy	0.052	0.471	Accept Ho
	Classroom Management	0.037	0.613	Accept Ho
	Evaluation	0.065	0.370	Accept Ho
	Lesson Planning	0.099	0.173	Accept Ho
	Development Of Teaching-Learning Materials	0.055	0.447	Accept Ho
	Overall	0.068	0.351	Accept Ho
Research Completed	Content Knowledge and Pedagogy	-0.051	0.480	Accept Ho
	Content Knowledge and Pedagogy	-0.010	0.895	Accept Ho
	Classroom Management	-0.037	0.608	Accept Ho
Overall	Evaluation	0.023	0.747	Accept Ho
	Lesson Planning	0.027	0.707	Accept Ho
	Development Of Teaching-Learning Materials	0.004	0.958	Accept Ho
	Overall	0.014	0.851	Accept Ho

The data above shows no significant relationship between instructional competencies and research productivity, with correlations ranging from -0.010 to 0.014 (p-value = 0.851). The null hypothesis is accepted.

Research completed is not significantly correlated with all the components of instructional competencies, with correlations ranging from -0.051 to 0.010 (p-value = 0.895). This implies that the completion of research has no direct influence on the overall instructional competencies. Similarly, research presentation shows no correlations in all the components of instructional competencies, with correlations ranging from -0.053 to -0.031 (p-value = 0.673), indicating that research presentations have no direct impact on instructional competencies. Research publication also demonstrate no correlations with all components of instructional competencies, with correlations ranging from 0.052 to 0.068 (p-value = 0.35). This implies that research publications exhibit no correlation to other components of instructional competencies. The findings suggest the importance of identifying other factors influencing instructional competencies.

The overall analysis shows that all the components of instructional competencies are not affected by the research productivity. The result implies that instructional competencies have no direct impact on being productive in crafting research.

The above result differs from the result obtained in the study conducted by Quisquino (2022) on master teachers as instructional leaders in that it shows that there is a significant relationship between the level of instructional leadership skills and competencies of the master teachers in terms of instruction, research, coaching and mentoring, observation and supervision, and the extent of professional growth of teachers, since the computed p-value is less than 0.05, thus rejecting the null hypothesis.

In addition, the author concluded that the instructional skills and competencies of a master teacher in terms of instruction, research, coaching and mentoring, observation and supervision are highly competent.

Table 27 presents the analysis of the results that focuses on the significant relationship between supervisory competencies and research productivity.

The data shows no significant relationship between supervisory competencies and research productivity, with correlations ranging from 0.031 to 0.021 (p-value = 0.776), leading to acceptance of null hypothesis.

Table 27. *Significant relationship between supervisory competencies and research productivity*

Level Of Research Productivity	*Level Of Supervisory Competencies*	*Spearman Rank Correlation Coefficient*	*P-Value*	*Remarks*
Research Completed	Observation	0.118	0.104	Accept Ho
	Diagnosing And Solving Teaching Problems	0.107	0.140	Accept Ho
	Mentoring And Coaching	0.118	0.104	Accept Ho
	Leadership	0.173	0.016	Reject Ho
	Overall	0.124	0.086	Accept Ho
Research Presentation	Observation	-0.057	0.432	Accept Ho
	Diagnosing And Solving Teaching Problems	-0.088	0.224	Accept Ho
	Mentoring And Coaching	-0.043	0.554	Accept Ho
	Leadership	-0.045	0.534	Accept Ho
	Overall	-0.079	0.275	Accept Ho
Research Publications	Observation	0.090	0.214	Accept Ho
	Diagnosing And Solving Teaching Problems	0.087	0.228	Accept Ho
	Mentoring And Coaching	0.134	0.065	Accept Ho
	Leadership	0.116	0.108	Accept Ho
	Overall	0.076	0.295	Accept Ho
Overall	Observation	0.031	0.671	Accept Ho
	Diagnosing And Solving Teaching Problems	0.027	0.714	Accept Ho
	Mentoring And Coaching	0.051	0.478	Accept Ho
	Leadership	0.070	0.336	Accept Ho
	Overall	0.021	0.776	Accept Ho

Research completed found to have no significant correlation to the following supervisory competencies: observation, diagnosing and solving teaching problems, and coaching and mentoring, with correlations ranging from 0.107 to 0.124. However, a significant correlation found in leadership, with a correlation of 0.173. The overall p-value was 0.086, indicating that the completion of research is not affected by other supervisory competencies except in leadership. This implies that the role of the leader as a motivator could help enhance teachers' eagerness for the completion of research.

In research presentation, there are still no correlations with all the components of supervisory competencies with correlations ranging from -0.057 to -0.079 (p-value = 0.275), showing no significant correlation. This implies that research presentation is not correlated to other components of supervisory competencies. This suggests that research presentations have no direct impact on supervisory competencies.

In terms of research publication, there are no correlations with all components of supervisory competencies, with correlations ranging from 0.090 to 0.076 (p-value = 0.295), emphasizing significance. This implies that research publications exhibit no correlation with other components of supervisory competencies. The findings suggest that research publication may not influence supervisory competencies.

The overall analysis shows no correlation observed in some components of supervisory competencies except in leadership. This means that other supervisory competencies were not affected by the research productivity. This implies that participants who are efficient in other components of supervisory competencies are also efficient in the area of research productivity. Still, the leadership role could be taken into consideration as it has bearing on the research completion.

The above result is supported by the recent study of Ordovisa Jr. and Canon (2020), which found that supervision brings improvement in classroom practices and student success through the professional growth and improvement of teachers

Conclusions

The study's findings lead to the following conclusions:

The socio-demographic profile of the master teachers implies that the majority of them are middle-aged, female, have a master's degree, are new to the position, teaching at the elementary level, and actively attended research trainings.

Master teachers are very competent at the level of instructional competencies. Generally, this implies that master teachers possess a proficient instructional skill to provide quality instruction to improve students' learning.

Master teachers are very competent at the level of supervisory competencies. This implies that master teachers have a remarkable capability to supervise teachers.

The level of research productivity of master teachers is less productive. This implies that their willingness to explore other research theme, presenting and publishing in other levels of organizations is minimal.

The instructional competencies of master teachers are not significantly influenced by factors such as age, sex, length of service as a master teacher, and school level of assignment. However, educational attainment is significant. The supervisory competencies of master teachers have no significant difference with age, sex, length of service as a master teacher, school level of assignment, and the number of research training attended. Nonetheless, significant in highest educational attainment. The research productivity of a master teacher has no significant difference with age, sex, highest educational attainment, school level of assignment, and the number of research trainings attended. In contrast, the length of service as a master teacher, is significant. This implies that other factors may influence instructional and supervisory competencies, as well as the research productivity of master teachers.

There were significant differences among all components of instructional competencies. This implies that a master teacher's instructional effectiveness is greatly influenced by each component of instructional competencies.

The instructional and supervisory competencies of master teachers are significantly correlated to each other. However, both are not significantly correlated with research productivity. This implies that master teachers' instructional competencies and supervisory competencies appear to have no direct impact on research productivity.

On the basis of the significant findings and conclusions of the study, the following recommendations are offered:

Given the demographic profile of master teachers indicating a majority in the 45 to 49 age range, predominantly female, holding master's degrees, and having several years of teaching experience as master teachers along with research training, it's recommended for schools' division training teams to design professional development programs tailored to address the specific needs and interests of this demographic group. These programs could focus on advanced teaching methodologies, leadership skills, and research enhancement to further leverage their expertise in educational settings.

As the instructional competencies of master teachers are found to be very competent, it's recommended for school administrators to establish a system for continuous professional development and peer learning opportunities for master teachers. This can include mentorship programs, regular workshops on innovative teaching practices, and collaborative lesson planning sessions to maintain and enhance the quality of instruction provided by master teachers.

Since master teachers exhibit very competent supervisory skills, it's recommended that master teachers may utilize their expertise in mentoring and supporting proficient teachers within the school system. Implementing formal mentorship programs where master teachers provide guidance and feedback to less experienced colleagues can contribute to professional growth and overall improvement in teaching quality across the institution.

To address master teachers lesser research productivity, it's recommended for schools' division research managers to possibly include funding to incentivize and support master teachers' engagement in research activities. This can include offering grants for research projects, organizing research forums or conferences within the institution, and providing mentorship or resources to assist master teachers in developing and disseminating their research findings.

Considering the significance of educational attainment on instructional and supervisory competencies and length of service on research productivity, it's recommended for the DepEd human resource department to incorporate these factors into recruitment and professional development policies. Providing opportunities for continuous education and research training can help improve the overall competencies of master teachers, regardless of their demographic characteristics.

Given the significant differences among all components of instructional competencies, it's recommended for school heads to invest in professional development programs specifically targeting classroom management techniques. Providing master teachers with strategies and resources to effectively manage classroom dynamics can contribute to better instructional outcomes and the overall classroom environment.

Since instructional and supervisory competencies are significantly correlated, it's recommended for the DepEd to possibly integrate these two areas in professional development programs and performance evaluations. It is further recommended to adopt the proposed competency enhancement plan to master teachers to help them develop their supervisory skills alongside instructional skills, which can lead to a more comprehensive approach to teacher development. Additionally, while research productivity may not be significantly correlated with instructional or supervisory competencies, fostering a culture of research inquiry and collaboration can still contribute to professional growth and innovation within the institution.

For future research, research utilization and research citation may consider among the components of research productivity.

References

Abragan, F., Abarcas, V., Aquino, I. M., & Bagongon, R. E. (2022). Research Review On K-12 Curriculum Implementation in The Philippines: A Generic Perspective. European Journal of Educational and Social Sciences, 7(1), 1–8. https://dergipark.org.tr/en/pub/ejees/issue/72967/1059451

Abueva, A., (2023). Why Does the Philippines Need the K-12 Education System? Soapboxie. https://soapboxie.com/social-issues/The-Implementation-o-the-K-12-Program-in-the-Philippine-Basic-Education-Curriculum.

Acuña, A.D. (2020). Research Organizational Support, Competence and Performance of Teachers and Administrators in Public Senior High Schools in Cavite: Basis for Research Capacity Building Program.

Badea, M. (n.d.) The role of classroom observation in teaching future teachers: a Case study. Academia.edu. https://www.academia.edu/6373935/THE_ROLE_OF_CLASSROOM_OBSERVATION_IN_TEACHING_FUTURE_TEACHERS_A_CASE_STUDY

Basilio, M. B. (2021). Instructional supervision and assessment in the 21st-century and beyond. IMRaD Journal, 4(5). https://files.eric.ed.gov/fulltext/ED629212.pdf

Buensuceso, J.G. (2023). Instructional Leadership Practices and Instructional Competence of Master Teacher in the Shcools Division of Imus City: Basis for Master Teacher Learning and Development Plan.

Bulilan, R. (2022). Educational attainment and teaching competencies of university faculty. ResearchGate. https://www.researchgate.net/publication/364338818_Educational_Attainment_and_Teaching_Competencies_of_University_Faculty

Burden, P. R. (2020). Classroom management: Creating a successful K-12 learning community. John Wiley & Sons.

Capadngan, A. (2020). Instructional supervision competence of public-school heads as it correlates to teachers' proficiency. International Journal of Current Research, 12(10), 14484–14488. https://doi.org/10.24941/ijcr.40042.10.202

Cardona, R. S. (2020). The enablers and outcomes of research productivity among junior high school mathematics teachers: A structural model. EURASIA Journal of Mathematics, Science and Technology Education, 16(11), em1901.

Chen, W., & Reeves, T. C. (2020). Twelve tips for conducting educational design research in medical education. Medical Teacher, 42(9), 980-986.

Cherry, K. (2022). What is self-determination theory? Verywell Mind. https://www.verywellmind.com/what-is-self-determination-theory-2795387

Clariño, J. (2020). Organizational support, instructional and professional competencies of master teachers – A theory. ResearchGate. https://doi.org/10.13140/RG.2.2.11943.78247

Clements, K. (2023). What's the difference between sex and gender? Healthline. https://www.healthline.com/health/sex-vs-gender

Comighud, S. M. T. (2019). Instructional supervision and educational administration: Goal setting, monitoring, and feedbacking practices as performance management mechanisms. UBT International Conference. https://knowledgecenter.ubt-uni.net/conference/2019/events/52

Cortidor, A. L., Igot, J. J., & Artiaga, R. Q. (2023). Peer-led team learning: A strategy to enhance research productivity and competence. International Journal of Multidisciplinary: Applied Business and Education Research, 4(5), 1546–1554. https://doi.org/10.11594/ijmaber.04.05.

Diate, K., & Mordeno, I. C. (2021). Filipino physics teachers' teaching challenges and perception of essential skills for a supportive learning environment. Asia Research Network Journal of Education, 1(2), 61–76.

Ebersole, L. (2022, May 26). What is teacher leadership? Elmhurst University. https://www.elmhurst.edu/blog/teacher-leadership/

Faragher, R., Chen, M., Miranda, L., Poon, K., Rumiati, C. F. R., & Chen, H. (2021). Inclusive education in Asia: Insights from some country case studies. Journal of Policy and Practice in Intellectual Disabilities, 18(1), 23-35.

Francisco, A. R. S. (2020). Teachers' personal and professional demographic characteristics as predictors of students' academic performance in English. International Journal of Management, Technology, and Social Sciences, 5(2), 80–91. https://doi.org/10.5281/zenodo.3997430

Friedrich, J., Münch, A.-K., Thiel, A., Voelter-Mahlknecht, S., & Sudeck, G. (2023). Occupational health literacy scale (OHLS): Development and validation of a domain-specific measuring instrument. Health Promotion International, 38(1). https://doi.org/10.1093/heapro/daac182

Filgona, J. (2020). Teachers' pedagogical content knowledge and students' academic achievement: A theoretical overview. Academia.edu. https://www.academia.edu/44005245/TEACHERS_PEDAGOGICAL_CONTENT_KNOWLEDGE_AND_STUDENTS_ACADEMIC_ACHIEVEMENT_A_THEORETICAL_OVERVIEW

Fox-Hodess, A. (2022). Mentoring and coaching. Center for the Study of Child Care Employment.

https://cscce.berkeley.edu/publications/commentary/mentoring-and-coaching-distinctions-in-practice/

Graham, L., White, S., Cologon, K., & Pianta, R. (2020). Do teachers' years of experience make a difference in the quality of teaching? Teaching and Teacher Education, 96, 103190. https://doi.org/10.1016/j.tate.2020.103190

Guido, R. M. D., & Orleans, A. V. (2020). Philippine research productivity in education research: A comparative performance in Southeast Asia. Asia Pacific Journal of Multidisciplinary Research, 8(4), 76-90.

Hartinah, S., Suharso, P., Umam, R., Syazali, M., Lestari, B. D., Roslina, R., et al. (2020). Teacher's performance management: The role of principal's leadership, work environment, and motivation in Tegal City, Indonesia. 10(1), 235–246. https://doi.org/10.5267/j.msl.2019.7.038

Henry, C., Ghani, N. A., MD, Hamid, U. M. A., & Bakar, A. N. (n.d.). Factors contributing towards research productivity in higher education. ERIC. https://eric.ed.gov/?id=EJ1246403

Holdo, M. (2023). Critical reflection: John Dewey's relational view of transformative learning. Journal of Transformative Education, 21(1), 9–25. https://doi.org/10.1177/15413446221086727

Kifor, C. V., Teodorescu, D., Andrei, T., & Săvescu, R. (2021). Research production and international visibility in higher education: The evolution of Romanian universities from 2011 to 2019. Sustainability, 13(23), 13362. https://doi.org/10.3390/su132313362

Kirsi, P., Tikkanen, L., & Anttila, H. (2022). Relationship between doctoral supervisors' competencies, engagement in supervisory development, and experienced support from research community. Innovations in Education and Teaching International. https://doi.org/10.1080/14703297.2022.2160369

Knott, J. C., Taylor, D. M., & Simon, E. L. (2020). Conference presentations: A research primer for low- and middle-income countries. African Journal of Emergency Medicine, 10, S158–S160. https://doi.org/10.1016/j.afjem.2020.05.002

Lagura, G. L., & Alegre, E. M. (2020). Educational preparation and quality of trainings attended towards teacher's capacity in research-based instructional material development.

Loveless, B. (2022). The complete introduction to mentoring and coaching teachers. Education Corner. https://www.educationcorner.com/mentoring-coaching-teachers/

Mabry, B. (2023). The zone of proximal development (ZPD): The power of just right. Teach. Learn. Grow. https://www.nwea.org/blog/2020/the-zone-of-proximal-development-zpd-the-power-of-just-right/

Maisyaroh, B. B., Wiyono, H., Valdez, A. V., Mangorsi, S. B., & Canapi, S. P. T. (2021). The implementation of instructional supervision in Indonesia and the Philippines, and its effect on the variation of teacher learning models and materials. Cogent Education, 8(1). https://doi.org/10.1080/2331186X.2021.1962232

Magnaye, L. J. (2023). Research productivity among secondary school teachers in the Schools Division of Calbayog City, Philippines. Journal of Humanities and Social Sciences Studies, 5(4), 19–29. https://doi.org/10.32996/jhsss.2023.5.4.3

Manila, B., Bert, H., Dayanan, G., Barlis, J., & Fajardo, J. (2022). Assessment of teachers' research capability towards the promotion of research culture in elementary schools. Asia Pacific Journal of Management and Sustainable Development, 10(2). https://research.lpubatangas.edu.ph/wp-content/uploads/2022/09/6-APJMSD

Matias, S. V. (2023). The instructional supervisory competencies of master teachers in the Division of Rizal: Inputs for an enhancement professional development program. Psychology and Education: A Multidisciplinary Journal. https://doi.org/10.5281/zenodo.8437399. Retrieved from https://www.academia.edu/108065707/

Mcleod, S., PhD. (2023). Lev Vygotsky's sociocultural theory - Simply psychology. Simply Psychology. https://www.simplypsychology.org/vygotsky.html

McKenney, S., & Reeves, T. C. (2021). Educational design research: Portraying, conducting, and enhancing productive scholarship. Medical Education, 55(1), 82-92.

Oppong Frimpong, S. (2021). The role of teaching and learning materials and interaction as a tool to quality early childhood education in Agona East District of the Central Region of Ghana. African Educational Research Journal, 9(1), 168-178. Retrieved from EJ1287239.pdf (ed.gov)

Olayisade, A., & Awolusi, O. D. (2021). The effect of leadership styles on employee's productivity in the Nigerian oil and gas industry. Information Management and Business Review, 13(1 (I)), 47-64.

Ordavisa, P., & Cañon, I. (2020). Relevance of instructional supervision to teachers and school heads' performance. Asia Pacific Journal of Education, Arts and Sciences, 7(1), 89–94. Retrieved from http://apjeas.apjmr.com/wp-content/uploads/2020/05/APJEAS-2020.7.1.11.pdf.

Podador, F. (2023). Instructional supervision and leadership skills of master teachers in the Division of Manila: Input for an enhancement training program. GEO Academic Journal, 4. https://doi.org/10.56738/issn29603986.geo2023.4.29.

Palestina, R., Pangan, A., Ancho, I., La, D., Lipa, S., & City, L. (2020). Curriculum implementation facilitating and hindering factors: The Philippines context. International Journal of Education, 13, 91-104. https://doi.org/10.17509/ije.v13i2.25340

Paramita, P. P., Sharma, U., & Anderson, A. (2020). Effective teacher professional learning on classroom behaviour management: A review of literature. Australian Journal of Teacher Education, 45(1), 61-81.

Pasayon, C., & Tantiado, R. (2023). Transformational leadership style of school heads and teachers' performance. International Journal of Research Publications, 125. https://doi.org/10.47119/IJRP1001251520234948

Peer observations of teaching - Center for Faculty Excellence - Purdue University Northwest. (n.d.). Retrieved from https://www.pnw.edu/center-faculty-excellence/programs/peer-observations-of-teaching/

Peng, Y., Zhu, Q., Wang, B., & Ren, J. (2020). A cross-sectional study on interference control: Age affects reactive control but not proactive control. PeerJ, 8, e8365. https://doi.org/10.7717/peerj.8365

Quisquino, J. M. F. (2022). Master teachers as instructional leaders in public elementary schools in the Division of Rizal. International Journal for Research in Applied Science and Engineering Technology, 10(12), 891–899. https://doi.org/10.22214/ijraset.2022.47974

Resources for teachers. (2022). Research Center for Teacher Quality (RCTQ). Retrieved from https://www.rctq.ph/?page_id=55

Salvan, V. J., & Hambre, M. (2020). Teachers' demographic profile on the learners' performance using K-12 Earth and Space module. Retrieved from https://jespnet.com/journals/Vol_7_No_4_December_2020/14.pdf

Shiwakoti, N., Jiang, H., & Nguyen, A. D. (2022). Passengers' perception of safety and its relationship with demographics, service quality, satisfaction, and loyalty in the airline sector: A case study of Vietnam to Australia route. Transport Policy, 124, 194-202.

Sukoco, B. M., Putra, R. A., Muqaffi, H. N., Lutfian, M. V., & Wicaksono, H. (2023). Comparative study of ASEAN research productivity. SAGE Open, 13(1). https://doi.org/10.1177/21582440221145157

Suson, R., Capuno, R., Manalastas, R., Malabago, N., Aranas, A. G., & Ermac, E. (2020). Educational research productivity road map: Conclusions from the identified research barriers and variables. Cypriot Journal of Educational Sciences, 15(5), 1160-1175.

Tinaytin, J. C. (2022). Relationship of master teachers' mentoring competency, teachers' performance, and students' academic achievement. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjEgSclMCAAxVz3TgGHSmnBuoQFnoECA4QAQ&url=https%3A%2F%2Fijrp.org%2FfilePermission%2FfileDownlaod%2F4%2Fbda7afc88814cd82664c45ea4a05b8f8%2F2&usg=AOvVaw1bgERfchuuP2obej9KRrTl&opi=89978449.

The best teacher leadership skill. (2022, July 8). Retrieved from https://online.siue.edu/degrees/education/msed/teacher-leader/the-best-teacher-leadership-skills/

Uy, C. S., & Callo, E. C. (2023). Teachers' readiness and supportive environment toward better research productivity and skills: Basis for a policy development on research program. International Journal of Multidisciplinary: Applied Business and Education Research, 4(7), 2306–2319. https://doi.org/10.11594/ijmaber.04.07.13

Walsh, P., Owen, P. A., Mustafa, N., & Beech, R. (2020). Learning and teaching approaches promoting resilience in student nurses: An integrated review of the literature. Nurse Education in Practice, 45, 102748.

Wanasinghe, S., & Nawastheen, F. M. (2020). Improving master teacher's supervision of teaching practice of postgraduate diploma in education. ResearchGate. Retrieved from https://www.researchgate.net/publication/346510144_Improving_Master_Teacher's_Supervision_of_Teaching_Practice_of_Postgraduate_Diploma_in_Education?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InNlYXJjaCIsInBvc2l0aW9uIjoicGFnZUhlYWRlciJ9fQ

Wikipedia contributors. (n.d.). Classroom management. Wikipedia. Retrieved from https://en.wikipedia.org/wiki/Classroom_management

Wolff, C. E., Jarodzka, H., & Boshuizen, H. (2021). Classroom management scripts: A theoretical model contrasting expert and novice teachers' knowledge and awareness of classroom events. Educational Psychology Review, 33(1), 131-148.

Yambi, T. A. C. (2018). Assessment and evaluation in education. ResearchGate. Retrieved from https://www.researchgate.net/publication/342918149_ASSESSMENT_AND_EVALUATION_IN_EDUCATION

Yıldız, V. A. (2020). Examining the motivation and job satisfaction of classroom teachers within the framework of self-determination and dual factor theories. Atatürk University.

Zhang, M., Walker, A., & Qian, H. (2022). Teacher leadership for professional learning: A case study of a master teacher studio in Zhejiang Province, China. Professional Development in Education, 1-16. https://doi.org/10.1080/19415257.2022.2111321

Affiliations and Corresponding Information

Christine T. Tubog
Paliparan II Integrated High School
Department of Education – Philippines

Liza C. Costa
Cavite State University – Philippines