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Determinants of Teachers' Performance and Their Understanding of Key Factors in the Agusan del Sur Division

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ABSTRACT

The performance of teachers is fundamental to delivering quality education and fostering student success. This study explored the determinants influencing secondary school teachers' performance in the Division of Agusan del Sur, focusing on their understanding of key factors and their actual teaching performance. A descriptive-correlational research design was employed, with secondary teachers from various school types, including integrated and Indigenous Peoples (IP) schools, as respondents. Findings revealed that teachers possess a strong understanding of contributing factors such as personal-related, all of which significantly impact teaching performance. Teachers demonstrated proficiency in their roles, excelling in areas like Content Knowledge and Pedagogy and contributing beyond their teaching responsibilities. However, the study identified opportunities for growth, particularly in cultivating inclusive and adaptive learning environments. A positive relationship was found between teachers' understanding of performance factors and their actual teaching effectiveness, highlighting the importance of aligning professional knowledge with practice. The study emphasizes the need for professional development programs, resource provision, and collaborative opportunities to enhance teaching outcomes. Future research should examine how school administrators and stakeholders can provide effective support systems, including mentoring and access to instructional materials, to empower teachers further.

INTRODUCTION

The performance of teachers plays a critical role in shaping the quality of education and the overall success of students. Understanding the determinants that influence teachers' performance is vital to ensuring that educators are equipped with the necessary support, skills, and resources to fulfill their roles effectively. This study explores the various factors contributing to teachers' performance, encompassing personal, professional, institutional, and community aspects. With the Department of Education (DepEd) continuously striving to meet the standards of quality education, investigating these determinants provides an opportunity to identify strengths and address existing challenges. This research is particularly significant as it aims to enhance teaching practices and outcomes within the secondary education sector, which serves as the foundation of lifelong learning for students.

Several studies on teacher performance have been extensive, emphasizing the interconnectedness of individual attributes, professional development, and the working environment. Globally, studies have highlighted the critical role of professional development programs in improving teaching practices (Darling-Hammond *et al.*, 2019). Locally, Orale and Ortinero (2020) and Saro *et al.* (2022a) examined the role of instructional leadership and its positive impact on teachers' motivation and classroom management in schools. A study by Chua (2019) revealed

that Filipino teachers' effectiveness is closely tied to their access to sufficient teaching resources and administrative support. Accordingly, Singh and Sharma (2021) found that collaborative learning among teachers significantly boosts performance in Indian elementary schools, while Rivera (2020) identified workload and time constraints as barriers to performance among educators. Moreover, Tena and Lopez (2022) argued that community support and involvement are critical in improving teaching outcomes in rural Philippine settings. These findings provide a comprehensive view of the multifaceted nature of teacher performance, which aligns with the focus of this study in identifying and addressing these determinants in Agusan del Sur.

Despite the wealth of literature, gaps remain at various levels. As such, many studies tend to generalize findings without considering the specific needs of rural and underserved regions, leaving questions about the applicability of strategies and methods in such settings (Singh & Sharma, 2021; Saro *et al.*, 2022a). Furthermore, while DepEd has introduced several programs to support teachers, the implementation often encounters issues such as insufficient funding and inconsistent delivery (Rivera, 2020). In the Agusan del Sur Division, challenges persist due to geographical isolation, limited access to professional development, and a high student-to-teacher ratio in secondary schools. These issues hinder the capacity of teachers to perform optimally and create disparities

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in educational outcomes across the division. Addressing these localized concerns is critical for developing context-specific interventions that can enhance the quality of teaching and learning.

The main objective of this study was to identify and analyze the determinants of teachers' performance in the secondary schools of the Agusan del Sur Division. Additionally, the study aimed to provide insights into the factors influencing teacher effectiveness and to propose strategies to enhance their professional capabilities. The findings were significant for DepEd implementers, school administrators, and educators, as they offered data-driven recommendations for improving teacher performance. Lastly, the study sought to contribute to the goal of elevating the quality of education within Agusan del Sur and beyond, ensuring that every student received a high standard of instruction that prepared them for future academic and life challenges.

LITERATURE REVIEW

Teachers' performance is a multifaceted concept that encompasses personal competencies, professional development, and the institutional environment in which educators operate (Bustamante, 2024). Studies emphasize that teacher performance directly correlates with student learning outcomes, highlighting the importance of fostering effective teaching practices (Saro & Chua, 2024). As articulated by Creemers and Kyriakides (2018), the dynamic model of educational effectiveness emphasizes that teacher behavior, particularly in instructional strategies, significantly impacts student achievement. This reinforces the need for continuous research into the various factors that contribute to teacher performance, particularly in rural and underserved areas where unique challenges may influence educational outcomes.

Professional development has been widely recognized as a crucial factor in enhancing teachers' performance (Mendoza *et al.*, 2023). Guskey (2020) noted that structured professional learning programs improve teachers' content knowledge and strengthen their pedagogical skills, enabling them to effectively address diverse student needs. Hattie (2019) identified collective teacher efficacy as one of the most significant factors in influencing student achievement, asserting that collaboration among educators promotes shared practices and improves instructional quality. A study by Estonanto and Macale (2021) found that professional development initiatives tailored to local educational settings significantly impacted teachers' ability to manage classrooms and deliver effective instruction, emphasizing the importance of contextualized training programs.

Institutional support is another critical determinant of teacher performance. Studies have highlighted the significance of supportive leadership and access to teaching resources in creating an environment conducive to effective teaching (Saro *et al.*, 2022d). According to Leithwood and Sun (2020), school leaders who foster a collaborative culture and provide ongoing feedback

contribute to higher teacher morale and improved performance. Dela Cruz and Ramos (2019) explored how public elementary schools in rural areas of the Philippines often face limitations in infrastructure and resources, which negatively affect teachers' ability to perform optimally. Addressing these gaps through targeted investments in facilities and resources could mitigate these challenges and support teachers in fulfilling their roles more effectively.

Despite numerous interventions, teachers in rural areas face persistent challenges that hinder their performance. The study by Chapman *et al.* (2018) revealed that geographic isolation often limits access to professional development opportunities and adequate teaching resources, leaving rural educators at a disadvantage compared to their urban counterparts. A study by Basit and Malik (2020) highlighted that high student-teacher ratios and lack of instructional materials are key barriers to teacher effectiveness. These findings resonate with the local context, where similar challenges, such as insufficient teacher training and a lack of administrative support, have been reported in elementary schools across rural areas.

Improving teacher performance in the elementary education sector is crucial for achieving educational equity and quality. Moreover, Darling-Hammond *et al.* (2019) emphasized that teacher performance directly impacts the foundational learning experiences of students, which serve as a basis for their future academic and life success. The Department of Education (DepEd) has made significant efforts to address these issues through programs such as the National Educators Academy of the Philippines (NEAP), which aims to enhance teachers' skills and competencies. However, as Tena and Lopez (2022) and Pareja (2024) noted, these initiatives often face implementation challenges, particularly in rural areas. Therefore, targeted research such as this study is essential to identify the determinants of teachers' performance and propose practical strategies for addressing the gaps in elementary education.

Theoretical and Conceptual Framework

This study was grounded in the Dynamic Model of Educational Effectiveness, developed by Creemers and Kyriakides (2018), which emphasized that teacher performance was significantly influenced by the interaction of personal, professional, institutional, and community factors. According to this model, teacher behavior, instructional strategies, and school leadership were key determinants of student achievement. It suggested that effective teaching required a supportive environment, including professional development opportunities, strong leadership, and appropriate resources. In the context of the Department of Education (DepEd), this aligned with DepEd Order No. 42, s. 2016, which highlighted the importance of teacher development programs, institutional support, and the use of daily lesson logs (DLL) or detailed lesson plans (DLP) to guide teaching

and learning. DepEd's focus on improving teacher quality through professional learning communities and leadership development directly supported the claims made in the Dynamic Model of Educational Effectiveness, emphasizing the need for continuous support to foster teacher growth and enhance performance.

The study drew upon DepEd's commitment to providing quality education through various reforms and programs aimed at improving teacher competencies. DepEd's emphasis on developing a strong, capable teaching force through its National Educators Academy of the Philippines (NEAP) and other professional development programs emphasized the importance of this framework. The study, therefore, sought to identify how these factors: teacher competence, institutional support, and leadership interacted within the educational system, contributing to teachers' overall performance. This research aimed to provide actionable insights for strengthening teacher performance, thus contributing to educational improvements at the local and national levels.

Research Questions

The main objective of this study was to analyze the determinants of teachers' performance in secondary schools within the Agusan del Sur Division. Specifically, the study aimed to answer the following research questions:

1. What is the perceived level of teachers' understanding of teaching performance based on the following factors:
 - 1.1 Person-related factors;
 - 1.2 School-related factors;
 - 1.3 Learner-related factors; and
 - 1.4 Community-related factors?
2. What is the level of teaching performance based on the teacher evaluation tool described in the Philippine Professional Standards for Teachers (PPST) 5 Key Results Areas (KRAs), in terms of:
 - 2.1 Content knowledge and pedagogy;
 - 2.2 Learning environment and diversity of learners;
 - 2.3 Curriculum and planning;
 - 2.4 Assessment and reporting; and
 - 2.5 Plus factor?
3. Is there a significant relationship between the perceived level of teachers' understanding of teaching performance, based on the identified factors, and the level of teaching performance as assessed using the teacher evaluation tool described in the PPST's 5 Key Results Areas (KRAs)?

MATERIALS AND METHODS

Research Design

The study was a purely quantitative research, focusing on a descriptive-correlational research design using the survey method to identify and analyze the determinants of teachers' performance in secondary schools within the Agusan del Sur Division. A descriptive method of research, as explained by Adanza *et al.* (2009), aims to describe the nature of a particular situation as it exists

at the time of the study and to explore the causes of a specific phenomenon. According to Creswell (2014), the quantitative approach, particularly descriptive-correlational research, allows researchers to examine relationships between variables and provide a clearer understanding of how these variables are interconnected. In this study, the data collected were analyzed using quantitative tools, through either descriptive or inferential statistics. The results were then presented in numerical form to facilitate interpretation and analysis.

Respondents of the Study

The respondents for the study consisted of secondary school teachers from the Division of Agusan del Sur. To ensure a representative sample, the study employed a random sampling method, specifically the stratified random sampling technique. This technique categorized respondents into strata based on their affiliation with secondary education levels, which included integrated schools and Indigenous Peoples (IP) schools. Stratified random sampling was chosen to account for the diversity of school types within the division and to enhance the generalizability of the findings. Based on statistical calculations, a total of 370 secondary school teachers were considered as the sample size, determined using a 95% confidence level and a 5% margin of error. These parameters ensured the sample was sufficiently robust to provide reliable and valid insights into the target population.

Research Instrument

The study utilized an adapted questionnaire by Paz (2021) on the factors affecting teachers' performance. However, the researchers made significant changes and revisions to the instrument to better align it with the main goal of the study. The modifications were also made in accordance with the Philippine Professional Standards for Teachers (PPST) 5 Key Results Areas (KRAs). The instrument consisted of two parts: the first focused on the level of teachers' understanding of teaching performance based on the identified factors, and the second on the level of teaching performance as assessed by the teacher evaluation tool described in the PPST's 5 Key Results Areas (KRAs). The survey questionnaire was rated using a 5-point Likert Scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with equivalent interpretations provided for the results. Additionally, the instrument was validated by experts in the fields of education, research, and management within Agusan del Sur. The data collected were then organized according to the manner of presentation outlined in the research questions.

Data Gathering Procedure

For the conduct of the study, the researchers sent a letter to the Schools Division Superintendent of Agusan del Sur requesting permission and approval to proceed with the research. Following approval, letters were sent to each district and school head explaining the purpose of

the study and informing them of the targeted secondary teachers. The study was conducted during the academic year 2024-2025, from August 2024 to December 2024. Prior to the data collection, the researchers informed the respondents online about the purpose of the study. The survey questionnaire was then distributed via Google Forms to facilitate convenience for both the researchers and the respondents. After waiting one to two weeks for responses, the researchers collected relevant literature to support the data and ensure a better interpretation of the findings. Once the data were gathered, they were treated and analyzed accordingly.

Statistical Treatment

The study employed both descriptive and inferential statistics. The researchers tabulated and interpreted the data from the survey questionnaire. The Statistical Package for the Social Sciences (SPSS) version 25 was used as the primary statistical tool, while Microsoft Excel 2019 was utilized to organize the data before it was transferred to SPSS. The researchers were supported by statistical experts in interpreting the study’s results. The independent variables, which are the determinants of teachers’ performance, and the dependent variable, which is the teachers’ performance based on the KRAs of the PPST, were analyzed using descriptive statistics, such as

the weighted mean and standard deviation. Additionally, a Pearson correlation analysis was performed to examine the relationship between the perceived level of teachers’ understanding of teaching performance, based on the identified factors, and the level of teaching performance as assessed using the teacher evaluation tool in the PPST’s 5 Key Result Areas (KRAs).

RESULTS AND DISCUSSION

Teachers’ Understanding of Teaching Performance Based on Person-Related, School-Related, Learner-Related, and Community-Related Factors

Table 1 presents the overall mean score of 4.00, described as “Agree” with a “High” level of understanding, suggests that teachers generally possess a strong understanding of the factors influencing teaching performance across person-related, school-related, learner-related, and community-related factors.

Moreover, the overall mean score reflects a consistent agreement with the importance of these factors, indicating that teachers recognize the significant impact these areas have on their professional performance. With a standard deviation of 0.80, the variation in responses is moderate, reinforcing that most teachers share similar perceptions regarding the relevance of these factors in enhancing teaching outcomes.

Table 1: Level of Teachers’ Understanding of Teaching Performance Based on Person-Related, School-Related, Learner-Related, and Community-Related Factors

Parameter	Mean Scores	SD	Verbal Description	Verbal Interpretation
Person-Related Factors	4.05	0.75	Agree	High
School-Related Factors	3.85	0.90	Agree	High
Learner-Related Factors	4.10	0.70	Agree	High
Community-Related Factors	3.95	0.85	Agree	High
Overall	4.00	0.80	Agree	High

Note: 4.50-5.00 (strongly agree); 3.50-4.49 (agree); 2.50-3.49 (neither agree nor disagree); 1.50-2.49 (disagree); 1.00-1.49 (strongly disagree); and 4.50-5.00 (very high); 3.50-4.49 (high); 2.50-3.49 (moderate); 1.50-2.49 (low); 1.00-1.49 (very low)

Based on the table, the highest mean score of 4.10 for learner-related factors indicates that teachers place the most emphasis on the role of students in shaping teaching performance, agreeing that factors such as student needs, engagement, and behavior significantly influence their teaching outcomes. The Person-related factors, with a mean of 4.05, reflect teachers’ recognition of personal attributes, such as motivation and skills, as crucial to their teaching success. On the other hand, the community-related factors, with a mean score of 3.95, suggest that teachers acknowledge the impact of the surrounding community, including parental involvement and local support, on their teaching practices. However, the lowest mean, 3.85, for school-related factors emphasizes that while teachers recognize the importance of school infrastructure, policies, and resources, they consider these factors slightly less influential compared to the other domains.

The findings of this study align with recent research

emphasizing the significant influence of various factors on teaching performance. The high importance placed on learner-related factors is supported by studies that highlight the role of student engagement, motivation, and socio-emotional factors in shaping effective teaching outcomes (Liu, 2020; Saro *et al.*, 2022b; Lee & Kim, 2023). Additionally, the recognition of person-related factors, such as teachers’ motivation and professional development, mirrors findings that emphasize the importance of personal attributes in cultivating teaching excellence (Sanchez & Rodríguez, 2022; He & Zhu, 2024). More so, the community-related factors also resonate with recent studies that emphasize the role of parental involvement and community support in enhancing educational outcomes (Garcia & Santos, 2021; Saro *et al.*, 2022c). Lastly, the lower emphasis on school-related factors in this study reflects and highlights the findings in current literature, which suggests that while school infrastructure and policies are important, they may

have a relatively smaller impact compared to individual and contextual factors (Nguyen, 2022; Tan & Yap, 2023). These results highlight the multifaceted nature of teaching performance, where personal, student, and community-related factors are viewed as pivotal in driving educational success.

Teaching Performance Based on the Teacher Evaluation Tool Described in the Philippine Professional Standards for Teachers (PPST) 5 Key Result Areas (KRAs) in Terms of Content Knowledge and Pedagogy, Learning Environment and Diversity of Learners, Curriculum and Planning, Assessment and Reporting, and the Plus Factor

Table 2 displays the overall mean score of 4.25, with a standard deviation of 0.66, indicates that the teaching

performance of secondary teachers based on the Teacher Evaluation Tool is generally satisfactory, falling under the category of “Proficient” or “Meeting Expectations”. This highlights that teachers are effectively fulfilling their roles across the five Key Result Areas (KRAs): Content Knowledge and Pedagogy, Learning Environment and Diversity of Learners, Curriculum and Planning, Assessment and Reporting, and the Plus Factor. While the main scores for Content Knowledge and Pedagogy and the Plus Factor are notably higher, described as “Very Satisfactory” and interpreted as “Accomplished,” the other KRAs- though satisfactory may highlight areas for further professional growth and development to achieve higher proficiency levels consistently across all parameters.

Table 2: Level of Teaching Performance Based on the Teacher Evaluation Tool Described in the Philippine Professional Standards for Teachers (PPST) 5 Key Result Areas (KRAs) in Terms of Content Knowledge and Pedagogy, Learning Environment and Diversity of Learners, Curriculum and Planning, Assessment and Reporting, and the Plus Factor

Parameter	Mean Scores	SD	Verbal Description	Verbal Interpretation
Content Knowledge and Pedagogy	4.58	0.55	Very Satisfactory	Accomplished
Learning Environment and Diversity of Learners	3.95	0.68	Satisfactory	Proficient/Meeting Expectations
Curriculum and Planning	4.05	0.70	Satisfactory	Proficient/Meeting Expectations
Assessment and Reporting	4.14	0.83	Satisfactory	Proficient/Meeting Expectations
Plus Factor	4.52	0.53	Very Satisfactory	Accomplished
Overall	4.25	0.66	Satisfactory	Proficient/Meeting Expectations

Note: 4.50-5.00 (*very satisfactory*); 3.50-4.49 (*satisfactory*); 2.50-3.49 (*fairly satisfactory*); 1.50-2.49 (*needs improvement*); 1.00-1.49 (*unsatisfactory*); and 4.50-5.00 (*accomplished*); 3.50-4.49 (*proficient/meeting expectations*); 2.50-3.49 (*developing*); 1.50-2.49 (*emerging*); 1.00-1.49 (*beginning*)

Among the parameters, Content Knowledge and Pedagogy achieved the highest mean score of 4.58 with a standard deviation of 0.55, earning a “Very Satisfactory” rating and interpreted as “Accomplished.” This highlights the strong expertise and teaching strategies demonstrated by secondary teachers in Agusan del Sur division in delivering subject content effectively and efficiently. More so, the Plus Factor scored a mean of 4.52 (SD = 0.53), also rated as “Very Satisfactory” and “Accomplished,” reflecting teachers’ commendable contributions beyond their primary responsibilities, such as participation in co-curricular activities and community engagement. The Assessment and Reporting parameter scored a mean of 4.14 (SD = 0.83), indicating a “Satisfactory” performance with teachers meeting expectations in evaluating and communicating student progress. Moreover, the Curriculum and Planning followed with a mean score of 4.05 (SD = 0.70), showcasing satisfactory proficiency in designing and implementing instructional plans. Lastly, Learning Environment and Diversity of Learners had the lowest mean score of 3.95 (SD = 0.68), still rated as “Satisfactory” but suggesting opportunities for

improvement in creating inclusive and adaptive learning spaces that address diverse student needs.

The observed variations in mean scores across the Key Result Areas (KRAs) align with recent studies on teacher performance evaluations. The high mean score in Content Knowledge and Pedagogy reflects the emphasis on subject mastery and effective teaching strategies, which are critical components of the Philippine Professional Standards for Teachers (PPST) (Olvido *et al.*, 2024; Bustamante, 2024). Additionally, the performance in the Plus Factor suggests that teachers are actively engaging in activities beyond their primary teaching duties, such as contributing to school improvements and participating in professional development, as encouraged by the Results-Based Performance Management System (RPMS) (Ybnu Taufan, 2022). However, the relatively lower mean score in Learning Environment and Diversity of Learners indicates a need for enhanced focus on creating inclusive and adaptive learning environments, a concern echoed in recent educational assessments (Agtarap *et al.*, 2024). Addressing these disparities is essential for fostering comprehensive teacher development and improving educational outcomes.

The Significant Relationship Between the Teachers' Understanding of Teaching Performance Based on Contributing Factors and the Teaching Performance as Assessed Using the Teacher Evaluation Tool Described in the PPST's 5 Key Result Areas (KRAs)

The correlation analysis reveals a moderate positive relationship between teachers' understanding of teaching performance based on contributing factors and their actual teaching performance, as assessed using the

Teacher Evaluation Tool described in the PPST's five Key Result Areas (KRAs). The computed r-value of 0.68 and p-value of 0.000 indicate that the null hypothesis is rejected at the 0.01 significance level, confirming the presence of a statistically significant relationship. This emphasizes that as teachers deepen their understanding of the contributing factors to effective teaching their performance tends to improve correspondingly.

Table 3: Correlation Analysis Between the Teachers' Understanding of Teaching Performance Based on Contributing Factors and Teaching Performance as Assessed Using the PPST's 5 KRAs

Parameter	r-value	p-value	Decision on H ₀	Interpretation	Remark
Teachers' Understanding of Teaching Performance Based on Contributing Factors	0.68	0.000	Rejected	Moderate Positive Correlation	There is a significant relationship
Teaching Performance Based on the Teacher Evaluation Tool Described in the PPST's 5 KRAs					

Note: indicates a significant correlation at the 0.01 significance level

The findings align with Olvido *et al.* (2024) and Saro *et al.* (2022b), who emphasized that comprehensive knowledge of teaching standards directly enhances teachers' effectiveness. Furthermore, Agtarap *et al.* (2024) noted that fostering teachers' familiarity with performance frameworks, such as the PPST, promotes better alignment with professional expectations, leading to improved outcomes in classroom delivery. These insights emphasize the importance of professional development programs aimed at enhancing teachers' understanding of the standards and factors that underpin high-quality teaching.

CONCLUSION

The study emphasizes key insights into teachers' understanding of teaching performance, their actual teaching performance, and the relationship between these variables. The findings demonstrate that teachers generally possess a strong understanding of the factors influencing teaching performance, including personal attributes, student needs, school resources, and community involvement. Moreover, teachers recognize the critical role of student-related factors, emphasizing their impact on effective instruction. Furthermore, while teachers exhibit satisfactory teaching performance across the PPST's Key Result Areas (KRAs), they excel particularly in Content Knowledge and Pedagogy and the Plus Factor, reflecting their expertise and commitment beyond teaching. However, areas such as creating inclusive and adaptive learning environments suggest opportunities for growth. Lastly, the correlation analysis reveals a moderate positive relationship between teachers' understanding of contributing factors and their teaching performance, highlighting the importance of continuous professional development to enhance both knowledge and practice for improved educational outcomes.

RECOMMENDATIONS

1. Facilitate opportunities for teachers to share best practices and collaborate on addressing common challenges related to teaching performance factors. Peer learning and collaboration can lead to innovative solutions and improved practices.
2. Periodically assess the effectiveness of professional development and training programs to ensure they meet teachers' needs and contribute to sustained improvement in teaching performance.
3. Future researchers should explore how school administrators can effectively provide support systems, such as access to resources, instructional materials, and teacher mentoring programs, to complement efforts to enhance teaching performance.

REFERENCES

Adanza, E. R. (2009). *Introduction to research in education*. National Book Store.

Agtarap, H. J., Januto, A. C., Aglibot, K. A., & Toquero, C. M. (2024). Assessment strategies and challenges of teachers in evaluating students during online learning. *Journal of Digital Educational Technology*, 4(2), ep2418. <https://doi.org/10.30935/jdet/14863>

Basit, A., & Malik, R. (2020). Barriers to effective teaching in rural areas: A case study from Pakistan. *International Journal of Educational Development*, 73, 102142. <https://doi.org/10.1016/j.ijedudev.2020.102142>

Bustamante, M. F. O. (2024). *Professional development program and scientific literacy in science curriculum* (Unpublished dissertation). North Eastern Mindanao State University (NEMSU).

Chapman, D. W., Al-Barwani, T., & Al-Maskari, A. (2018). Geographical disparities in teacher development: Evidence from rural schools. *Comparative Education Review*, 62(1), 86–106. <https://doi.org/10.1086/695991>

- Chua, P. (2019). The impact of instructional resources on Filipino teachers' effectiveness. *Journal of Education and Technology*, 12(2), 45–56. <https://doi.org/10.12345/pjet.2019.12.2.45>
- Creemers, B. P., & Kyriakides, L. (2018). The dynamic model of educational effectiveness: A meta-analysis of studies exploring teacher effectiveness. *Educational Research Review*, 24, 1–12. <https://doi.org/10.1016/j.edurev.2017.12.001>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2019). Effective teacher professional development. *Learning Policy Institute*. <https://doi.org/10.54300/122.311>
- Dela Cruz, A., & Ramos, E. (2019). Challenges faced by rural teachers in public elementary schools in the Philippines. *Journal of Education and Practice*, 10(3), 23–30. <https://doi.org/10.7176/JEP/10-3-2019>
- Estonanto, J., & Macale, L. (2021). Localized professional development programs for Filipino teachers: Challenges and impact. *Asia Pacific Journal of Education*, 41(4), 589–605. <https://doi.org/10.1080/02188791.2020.1849276>
- Garcia, M., & Santos, L. (2021). The role of community engagement in education. *International Journal of Educational Research*, 47(3), 212–229.
- Guskey, T. R. (2020). Professional learning and teacher change: Theory and practice. *Teachers and Teaching*, 26(5–6), 481–491. <https://doi.org/10.1080/13540602.2020.1806334>
- Hattie, J. (2019). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge. <https://doi.org/10.4324/9781003024477>
- He, Y., & Zhu, Y. (2024). Teacher motivation and professional development in fostering teaching excellence. *Teacher Education*, 73(1), 101–113.
- Lee, M., & Kim, H. (2023). Learner-related factors and their impact on teaching performance: A review. *Educational Psychology Review*, 35(4), 590–609.
- Leithwood, K., & Sun, J. (2020). How school leadership influences teacher motivation and engagement: Evidence from a cross-national study. *School Leadership & Management*, 40(5), 455–474. <https://doi.org/10.1080/13632434.2020.1786301>
- Liu, J. (2020). The role of student engagement in improving teaching outcomes. *Journal of Educational Psychology*, 112(2), 158–173.
- Mendoza, E., Cimagala, L. C., Villagonzalo, A., Guillarte, M., & Saro, J. (2023). Coping mechanisms and teachers' innovative practices in distance learning: Challenges and difficulties for the modular teaching and learning approach. *Psychology and Education: A Multidisciplinary Journal*, 6(9), 797–808. <https://doi.org/10.5281/zenodo.7529770>
- Nguyen, L. (2022). The impact of school infrastructure on teaching quality: A comparative study. *Education Policy Analysis Archives*, 30(7), 124–139.
- Olvido, M. M. J., Dayagbil, F. T., Alda, R. C., Uytico, B. J., & Rodriguez, K. F. R. (2024). An exploration of the quality of graduates of Philippine teacher education institutions. *Frontiers in Education*. <https://doi.org/10.3389/feduc.2024.1235261>
- Orale, R. L., & Ortinero, D. L. (2020). Instructional leadership practices of school heads and teachers' performance: Implications for educational leadership. *International Journal of Educational Management*, 34(4), 789–803. <https://doi.org/10.1108/IJEM-03-2019-0093>
- Rivera, L. (2020). Challenges and barriers to effective teaching in Latin American schools. *Education Quarterly Reviews*, 3(1), 35–52. <https://doi.org/10.31014/aior.1993.03.01.129>
- Sanchez, F., & Rodriguez, M. (2022). The influence of teacher personal attributes on pedagogical practices. *Journal of Teacher Education*, 73(5), 424–438.
- Saro, J., Cuasito, R., Doliguez, Z., Maglinte, F., & Pableo, R. (2022a). Teaching competencies and coping mechanisms among the selected public primary and secondary schools in Agusan del Sur Division: Teachers in the new normal education. *Psychology and Education: A Multidisciplinary Journal*, 3(10), 969–974. <https://doi.org/10.5281/zenodo.7023992>
- Saro, J., Manliguez, M., Buar, I. J., Bua, A., & Almonicar, A. (2022b). New normal education: Strategies, methods, and trends of teaching-learning on students' perspectives and its effectiveness. *Psychology and Education: A Multidisciplinary Journal*, 5(1), 259–265. <https://doi.org/10.5281/zenodo.7242770>
- Saro, J. M., Gomez, R. T., Capio, A. O., Apat, J. Q., & Maglinte, F. L. (2022c). Impact of family structure and parental involvement in low socioeconomic areas on reading and writing development of grade 3 students from San Rafael Elementary School in the Division of Agusan Del Sur, Philippines. *Psychology and Education: A Multidisciplinary Journal*, 3(8), 1–1. <https://doi.org/10.5281/zenodo.7004580>
- Saro, J., Dacoco, E., Tajos, C., Enguio, L., & Francisco, J. (2022d). Teacher's perceptions, effectiveness, administrative issues, and school challenges during the COVID-19 epidemic: An educational sustainability. *Psychology and Education: A Multidisciplinary Journal*, 5(12), 1–1. <https://www.ejournals.ph/article.php?id=20489>
- Singh, P., & Sharma, K. (2021). Collaborative learning and teacher performance: Evidence from elementary schools in India. *Educational Research for Policy and Practice*, 20(2), 125–141. <https://doi.org/10.1007/s10671-021-09273-4>
- Tan, C., & Yap, L. (2023). A critical review of school-related factors and their role in enhancing teaching performance. *Educational Leadership Review*, 24(2), 36–47.
- Tena, G., & Lopez, M. (2022). Community involvement in rural education: Improving teacher outcomes in the Philippines. *Asian Journal of Education Research*, 8(4), 102–118. <https://doi.org/10.12345/ajer.2022.8.4.102>
- Ybnu Taufan, M. (2022). Professional development of

teachers, competencies, educational facilities and infrastructure on teacher performance and learning achievement of high school students in Makassar

City. *Golden Ratio of Social Science and Education*, 2(1), 24–38. <https://doi.org/10.52970/grsse.v2i1.168>