



PROFESSIONAL DEVELOPMENT PARTICIPATION AND TEACHERS' SELF-EFFICACY IN LAAK DAVAO DE ORO

Jeremiah G. Recreo¹, Dr. Jean Fe A. Colango²

Department of Education, Teacher 1, Nabunturan, Davao de Oro, Philippines¹

Student, The Rizal Memorial Colleges, Inc. (Davao City), RMC Buildings, Población 8-A, Lopez Jaena

and Torres Streets, Marfori Height, 8000 Davao City, Philippines¹

Core Faculty, The Rizal Memorial Colleges, Inc. (Davao City), RMC Buildings, Población 8-A, Lopez Jaena

and Torres Streets, Marfori Height, 8000 Davao City, Philippines²

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ABSTRACT

The purpose of this study was to determine the relationship between professional development practices and teachers' self-efficacy in Laak South District, Division of Davao de Oro. A predictive correlational research design was utilized to examine the relationship and determine the influence of the study variables. The respondents consisted of 137 public secondary school teachers selected through stratified random sampling. Data were collected using a researcher-adapted survey questionnaire and analyzed using mean and standard deviation, Pearson product-moment correlation, and multiple linear regression analysis. Findings revealed that the level of professional development practices in terms of Learning Action Cell sessions, lesson study, coaching and mentoring, and in-service training was generally high. The results further indicated a significant and moderately high relationship between professional development practices and teachers' self-efficacy. Among the domains of professional development practices, in-service training, Learning Action Cell sessions, and lesson study emerged as significant predictors of teachers' self-efficacy, while coaching and mentoring did not show significant predictive influence. The findings highlight the importance of strengthening structured professional development programs and aligning them with teachers' instructional needs to enhance teaching effectiveness and support continuous professional growth.

INDEX TERMS: *Professional Development Practices, Teachers' Self-Efficacy, Learning Action Cell, Lesson Study, In-Service Training, Coaching and Mentoring*

INTRODUCTION

Globally, teachers' self-efficacy has become a critical issue in education, as many educators struggle to maintain confidence in delivering effective instruction, managing classrooms, and engaging learners (Zhang et al., 2026). In many education systems, teachers report uncertainty in applying instructional strategies and sustaining learner engagement (Bähr et al., 2026).

At the international level, specifically in the United States, teachers continue to face difficulties in maintaining self-efficacy and inconsistencies in professional learning support and classroom demands (Pan, 2023). In Brazil, studies have shown that teachers' encountered limited access to sustained and needs-based professional development programs (Vashetina et al., 2022). Likewise, in Indonesia, teachers experience challenges in applying newly acquired knowledge from training into real classroom settings (Rahmi & Rassanjani, 2025).

In the Philippine context, specifically in Davao City, studies revealed that teachers' self-efficacy is influenced by the limited continuity of professional development programs and lack of instructional support (Almagro & Flores, 2023). In Metro Manila, teachers reported challenges in classroom management and student engagement despite attending various training and seminars (Garcia, 2025). Similarly, in Cebu Province, teachers experienced difficulties in effectively applying learned strategies and encountered contextual constraints such as large class sizes and limited resources (Eleccion & Mallorca, 2024).

The persistence of low or inconsistent teachers' self-efficacy may lead to reduced instructional quality, ineffective classroom management, and decreased student engagement. Teachers with weak self-efficacy are less likely to innovate, adapt strategies, and respond to learners' diverse needs, ultimately affecting student achievement. Despite the recognized importance of professional development participation, there is a research gap in clearly establishing how different professional development practices contribute to improving teachers' self-efficacy, particularly in localized contexts such as Laak, Davao de Oro. Thus, this study aims to examine the



extent of professional development participation and its relationship with teachers' self-efficacy, providing a basis for strengthening teacher support systems and instructional effectiveness.

METHODOLOGY

Method Used

In Laak, Davao de Oro, this descriptive correlational study examined teachers' self-efficacy and professional development (PD) engagement. McMillan (2022) recommends a descriptive correlational strategy to describe current circumstances and examine variable associations without modifying them. The researcher investigated whether teacher self-efficacy increases with professional development engagement.

Engagement in professional development activities such Learning Action Cell meetings, lesson study, coaching and mentoring, and In-Service Training was the independent variable in this research. Learning techniques, classroom management, and student involvement were examined to determine instructors' self-efficacy. Both factors were measured using a validated structured survey questionnaire with a five-point Likert scale.

A descriptive correlational strategy allowed the researcher to quantitatively examine the variables' connection Strength and direction without inferring causality. For educational study that seeks to identify numerical connections between naturally occurring factors, Alharahsheh and Pius (2021) recommend such a strategy. The design also identified data trends and patterns that might guide teacher professional development initiatives and policy.

Sources of Data

This research used English instructors at public secondary schools in Laak, Davao de Oro, as its major data sources. The key responders were instructors who had firsthand experience with localized professional development, including LAC sessions and mentorship. Purposive sampling was used to choose people who actively participated in these efforts over the school year to guarantee a complete dataset. Their professional insights helped measure instructional confidence and school-based growth activity engagement.

The research used primary participant data, school records, and professional development attendance logs to verify teacher engagement. These secondary sources provided quantitative data from standardized survey instruments on instructional practices, classroom management, and student involvement self-efficacy. All data gathering followed ethical norms to ensure informed consent. By synthesising these varied data sources, the research revealed a meaningful connection between institutional training efforts and teaching staff perceived professional competence.

Data Gathering Instrument

This study employed a structured survey questionnaire to examine Professional Development Practices and English Teachers' Self-Efficacy. Researchers developed the questionnaire using empirically based studies and professional development and psychological frameworks for content validity and contextual relevance.

Professional Development Practices, the independent variable of this study, was adapted from Cabanero (2022), who examined school-based professional development initiatives like Learning Action Cell sessions, lesson study, coaching and mentoring, and In-Service Training. These aspects show systematic and collaborative teacher development. Drawing from this validated framework, the present study refined and organized indicators to operationalize Professional Development Practices into four subscales: Learning Action Cell sessions, lesson study, coaching and mentoring, and In-Service Training, aligning with Department of Education school-based practices. For this research, instructors' Self-Efficacy in Teaching English was derived from Maravilla (2025), which investigated instructors' confidence in instructional activities. The concept assessed instructional practices, classroom management, and student involvement. This paradigm allowed the current research to operationalize instructors' self-efficacy in instructional strategy, classroom management, and student engagement, making them relevant to local English language teaching.

The questionnaire was composed of two main sections: (1) Professional Development Practices and (2) Teachers' Self-Efficacy. Each subscale contained five indicators, allowing respondents to systematically assess their level of participation in professional development activities and their confidence in teaching practices during the School Year 2025 to 2026. To ensure ethical compliance, the instrument included a researcher's plea, clear instructions, and statements ensuring confidentiality, voluntary participation, and proper use of data.



All items were measured using a five-point Likert-type scale, with responses ranging from 5 (Very High) to 1 (Very Low). This scale provided a quantitative basis for analyzing the extent of professional development participation and teachers' self-efficacy. The structured format ensured consistency in responses and supported both descriptive and inferential statistical analysis.

Scale	Descriptive Rating	Interpretation
4.20 – 5.00	Very High	The Professional Development Practices and Teachers' Self-Efficacy is always manifested
3.40 – 4.19	High	The Professional Development Practices and Teachers' Self-Efficacy is oftentimes manifested
2.60 – 3.39	Moderate	The Professional Development Practices and Teachers' Self-Efficacy is sometimes manifested
1.80 – 2.59	Low	The Professional Development Practices and Teachers' Self-Efficacy is rarely manifested
1.00 – 1.79	Very Low	The Professional Development Practices and Teachers' Self-Efficacy is not manifested

To establish the reliability of the instrument, a pilot test was conducted and analyzed using Cronbach's alpha. The results indicated that all subscales demonstrated high to excellent levels of internal consistency. For Professional Development Practices, Learning Action Cell sessions obtained a Cronbach's alpha of 0.889, lesson study recorded 0.901, coaching and mentoring yielded 0.894, and In-Service Training registered 0.905, with an overall reliability coefficient of 0.906, interpreted as excellent reliability. For Teachers' Self-Efficacy, instructional strategy obtained 0.872, classroom management recorded 0.881, and student engagement yielded 0.883, with an overall reliability coefficient of 0.924, also interpreted as excellent reliability.

According to Pallant (2020) and Creswell and Creswell (2020), Cronbach's alpha values above 0.70 indicate acceptable reliability, while values exceeding 0.80 reflect high to excellent internal consistency. Based on these standards, the results confirmed that the research instrument was reliable and capable of producing consistent and dependable data for analyzing the relationship between professional development practices and teachers' self-efficacy.

Sampling Technique

The respondents of the study were teachers from the Laak South District, Division of Davao de Oro, specifically those assigned to five public secondary schools coded as follows: School A, School B, School C, School D and School E. From a total population of 210 teachers, the sample size was determined using G*Power, which resulted in 95%, which was appropriate for a known population with a specified margin of error. Based on this computation, a total of 137 respondents were selected for the study. The participants were chosen using a stratified random sampling technique, ensuring that each school was proportionally represented according to its total number of teachers. This method is appropriate when the population is composed of distinct subgroups, allowing the researcher to divide the population into strata and randomly select participants from each group (Creswell & Creswell, 2020).

The inclusion criteria were carefully defined to ensure alignment with the objectives of the study. Only teachers currently assigned to teach Grade 8 in the selected public secondary schools were included, ensuring that all respondents had direct and current teaching experience relevant to the study. In addition, all participants were required to be graduates of a Bachelor's degree in Education to ensure a standard level of pedagogical preparation. Furthermore, only teachers with at least three years of teaching experience were selected to ensure that respondents had sufficient exposure to classroom practices and participation in professional development activities.

To ensure the stability and consistency of the research instrument, a test-retest procedure was conducted prior to the actual data collection. A total of 30 teachers from schools outside the study area were selected for this purpose. These respondents shared similar characteristics with the actual participants but were not included in the final sample of 137 teachers. This procedure helped verify the reliability of the instrument over time and ensured that the data collected from the actual respondents were accurate, consistent, and credible.

Data Gathering Procedure

Rizal Memorial Colleges, Inc. policies guided the study. The researcher detailed data collecting, analysis, and dissemination strategies in formal requests to meet study goals. Reassuring beneficiaries of ethical precautions, anonymity, and the study's potential advantages was proactive. The official permission request expressly requested approval to continue, emphasizing the significance of administrative support for study success.



Permission to Conduct the Study. Before collecting data in February 2026, the researcher obtained authorization from the study advisor, the Dean of The Rizal Memorial Colleges, Inc., and the top administration of the DepEd Davao de Oro Schools Division. A complete research proposal detailing the study's design, techniques, and risks and benefits was submitted. The researcher clearly explained the study's aim, goals, and data collecting, analysis, and reporting techniques.

The researcher also notified participants about the study, their rights, and their engagement in September 2025, soon after the colloquium. Participants gave informed permission before joining the research.

Collection of Data. In the final week of March 2026, the researcher maintained data correctness and completeness. A consistent and methodical methodology to distributing and retrieving questionnaires guaranteed participant response dependability. This strategy ensured data organization and analysis. Collecting and Statifying Data. Once the survey questionnaires were returned, the researcher carefully checked them for correctness, completeness, and consistency.

To protect confidentiality and reduce processing mistakes, participant data was anonymized using unique codes. A 5-point Likert scale recorded responses to professional development methods and teacher self-efficacy assessed by instructional techniques, classroom management, and student engagement.

Descriptive statistics like the mean and standard deviation were used to characterize data trends and sample responses. Pearson's Product Moment Correlation Coefficient analysis was used to determine the strength and direction of the link between teacher self-efficacy and professional development engagement. This strategy worked for linear connections between two continuous variables. SPSS software was used for all statistical analyses to guarantee accuracy and reduce calculation mistakes. Statistical significance was assessed at 0.05, per research standards. This methodical methodology helped the researcher reach accurate interpretations and findings that met the study goals, leading to evidence-based suggestions for improving teacher support systems in Laak, Davao de Oro.

Data Analysis

To address the research questions posed in the study, appropriate statistical treatments were applied based on the nature of each question.

Mean scores and standard deviation

To address Research Questions 1 and 2, which examined the extent of professional development practices and teachers' self-efficacy, the mean and standard deviation were used as descriptive statistics. These measures are appropriate for summarizing central tendencies and variations within interval-scaled data obtained from the Likert-type survey responses (Taherdoost, 2022). These statistics provided a quantitative overview of the perceived levels of practice implementation and self-efficacy among teachers.

Pearson Product-Moment Correlation Coefficient

To answer Research Question 3, which explored the association between professional development practices and teachers' self-efficacy, the Pearson Product-Moment Correlation Coefficient was employed. This inferential method is suitable for determining the strength and direction of linear relationships between two continuous variables, allowing for the identification of statistically significant associations (Grey & Kinnear, 2022).

Multiple Linear Regression Analysis

Addressing Research Question 4, which aimed to determine which professional development practices significantly influence teachers' self-efficacy, a Multiple Linear Regression Analysis was conducted. This technique was appropriate given the continuous nature of both the dependent variable and the independent variables. It allowed for the identification of the predictive strength of each professional development indicator on teacher self-efficacy (Liu, 2023).

Ethical Considerations

The conduct of this study adhered to established ethical principles to protect the rights, dignity, and welfare of all participants. Prior to data collection, informed consent was secured, and participants were assured that their participation was entirely voluntary, with the right to withdraw at any time without any negative consequences. Anonymity and confidentiality were strictly maintained by assigning codes to responses and limiting access to the collected data solely to the researcher. All gathered information was securely stored and used exclusively for academic purposes. Ethical clearance was obtained from the appropriate research ethics committee to ensure that the study complied with standard ethical guidelines in educational research.

Social Value. The researcher recognized the social value of the study in determining how different levels of professional development participation influence teachers' self-efficacy in Laak, Davao de Oro. By examining professional development practices such as



Learning Action Cell sessions, lesson study, coaching and mentoring, and in-service training, the study aimed to provide meaningful insights for school leaders and policymakers. The findings were intended to support the development of targeted and sustainable interventions that enhance teachers' confidence and instructional effectiveness, ultimately improving the quality of learning experiences for students.

Informed Consent. Since the study involved professional adult participants, specifically licensed teachers, a formal assent process was not required. However, the researcher ensured that all participants fully understood the purpose, procedures, and scope of the study before agreeing to participate. Each participant was given adequate time to ask questions and clarify concerns. Informed consent was obtained only after participants voluntarily agreed to take part in the study, ensuring that participation was based on complete understanding and willingness.

Vulnerability of Research Respondents. The researcher acknowledged that participants might feel pressured due to their professional roles within their institutions. To address this, participation was strictly voluntary, and no authority figures were involved in the recruitment process. The researcher emphasized that there would be no penalties or consequences for declining participation or withdrawing from the study. These measures ensured the protection of participants' autonomy, dignity, and professional integrity.

Privacy and Confidentiality. The researcher ensured that all participants' privacy and confidentiality were protected throughout the study. Data were anonymized through the use of numerical codes, and no identifying information was included in any report or publication. All data were securely stored in password-protected files accessible only to the researcher. The information was used solely for academic purposes and will be disposed of appropriately after the required retention period.

Risk, Benefits, and Safety. The researcher carefully assessed potential risks associated with the study and determined that they were minimal. Since the study involved only survey participation, no physical, psychological, or professional risks were anticipated. Participation did not interfere with the respondents' professional responsibilities. The study provided professional benefits by encouraging teachers to reflect on their participation in professional development activities and their self-efficacy. It also contributed to identifying effective practices that may enhance teaching and learning outcomes.

Justice. By giving all research participants equal chance without discrimination based on age, gender, years of experience, or school affiliation, fairness was preserved. Participants were chosen primarily for their relevance to the research, notably their English teaching and professional growth. Everyone received equitable advantages and obligations from involvement, according to the researcher.

Transparency. The researcher maintained transparency throughout the research process by providing complete and accurate information regarding the purpose, procedures, risks, and benefits of the study. Participants were clearly informed of their rights and the voluntary nature of their involvement. The researcher remained available to address any concerns and ensured that no misleading or deceptive practices were used at any stage. This approach promoted trust, openness, and informed decision-making among the participants.

Qualification of the Researcher. The researcher earned a Bachelor of Secondary Education major in English from the University of Southeastern Philippines and has been serving as a Teacher I at San Antonio National High School for nine years. The researcher has actively participated in various trainings and seminars, including the Regional Assembly of Educational Leaders and the crafting of the School Improvement Plan, which involved the implementation of Learning Action Cells and coaching and mentoring programs. Furthermore, the researcher has served as a speaker in school-based Learning Action Cell sessions and has undergone coaching and mentoring under experienced school heads and master teachers. The researcher also received formal training in research methodology, educational assessment, and ethical research practices, ensuring competence in conducting the study with rigor and integrity.

Conflict of Interest. The researcher declared that there was no conflict of interest in the conduct of the study. No personal, financial, or professional relationships existed that could influence the outcomes of the research. The study was conducted objectively to contribute to the body of knowledge in English education. The researcher remained committed to maintaining impartiality, academic honesty, and ethical standards throughout the research process.

Adequacy of Facilities. The researcher ensured that adequate facilities and resources were available to support the ethical and effective conduct of the study. Access to appropriate technology, including secure computers and survey platforms, enabled the safe collection, storage, and analysis of data. Institutional library resources, research databases, and academic guidance were also utilized to support the completion of the study. These facilities ensured that the research process was conducted efficiently and in accordance with accepted academic standards.



Community Involvement. The researcher recognized the importance of community involvement in enhancing the relevance and social value of the study. School administrators were informed about the purpose and scope of the research to ensure transparency and support. The researcher encouraged participation and open communication among respondents to gather insights that may inform educational practices within their respective schools. Through this approach, the study was positioned as a collaborative effort contributing to the improvement of teaching practices and the overall development of the educational community.

Results and Discussion

Level of Professional Development Practices

The following table presents the level of professional development practices as a multidimensional construct with descriptive findings across key indicators, namely: Learning Action Cell (LAC) sessions, lesson study, coaching and mentoring, and in-service training, reflecting teachers' engagement in continuous professional learning and instructional improvement.

Level of Learning Action Cell Sessions

Presented in Table 1 is the level of Learning Action Cell (LAC) sessions, as measured through indicators related to collaborative problem-solving, alignment of topics with teaching needs, enhancement of instructional understanding, contribution to classroom management, and promotion of a supportive professional learning environment. The table shows an overall mean interpreted as High, indicating that LAC sessions are consistently implemented and experienced across all indicators.

Table 1
Level of Learning Action Cell Sessions

No	Learning Action Cell Sessions	Mean	SD	Descriptive Level
1	LAC sessions provide opportunities to collaboratively address instructional challenges through shared experiences.	3.41	0.76	High
2	Topics discussed during LAC sessions are aligned with the actual teaching needs of the subject area.	3.80	0.86	High
3	Participation in LAC sessions enhances understanding of effective teaching strategies and classroom practices.	3.58	0.87	High
4	Feedback and reflections during LAC sessions contribute to improved classroom management techniques.	3.61	0.93	High
5	LAC sessions foster a supportive professional environment that encourages continuous learning and peer mentoring.	3.72	0.71	High
Overall Mean		3.62	0.83	High

Very High (4.20–5.00); High (3.40–4.19); Moderate (2.60–3.39); Low (1.80–2.59); Very Low (1.00–1.79)

Table 1 presents the level of Learning Action Cell sessions with an overall mean of 3.62 and an SD of 0.83, described as High, indicating that teachers actively engage in LAC sessions and benefit from their structured collaborative nature. This suggests that LAC sessions serve as an effective platform for professional sharing, reflection, and continuous improvement in teaching practices.

Among the indicators, the highest mean was obtained by topics discussed during LAC sessions being aligned with the actual teaching needs of the subject area, with a mean of 3.80 and an SD of 0.86, described as High. This reflects the relevance of LAC sessions in addressing real classroom challenges and ensuring practical applicability. The next highest indicator was LAC sessions fostering a supportive professional environment that encourages continuous learning and peer mentoring, with a mean of 3.72 and an SD of 0.71, described as High.

Following this was feedback and reflections during LAC sessions contributing to improved classroom management techniques, with a mean of 3.61 and an SD of 0.93, described as High. The indicator on participation in LAC sessions enhancing understanding of effective teaching strategies obtained a mean of 3.58 with an SD of 0.87, also described as High, indicating that teachers gain valuable instructional insights through participation. Finally, the lowest mean was recorded for LAC sessions providing opportunities to collaboratively address instructional challenges through shared experiences, with a mean of 3.41 and an SD of 0.76, described as High.

The findings revealed that the level of professional development practices and teachers' self-efficacy was high, indicating that teachers demonstrated strong participation in professional learning activities and high confidence in instructional practices, which supports the



studies of Sacote-Labadan et al. (2025) and Murray et al. (2024), which emphasized that structured and sustained professional development enhances teacher competence and instructional quality.

Level of Lesson Study

Presented in Table 2 is the level of lesson study, as measured through indicators related to collaborative lesson planning, application of research-based teaching strategies, peer observation, post-lesson discussions, and continuous instructional refinement. The table shows an overall mean interpreted as High, indicating that lesson study is consistently practiced and experienced across all indicators.

Table 2
Level of Lesson Study

No	Lesson Study	Mean	SD	Descriptive Level
1	The process of collaboratively planning lessons during lesson study promotes deeper instructional reflection.	3.57	0.68	High
2	Participation in lesson study encourages the application of research-based teaching strategies.	4.01	0.88	High
3	Observing peer-taught lessons during lesson study provides valuable insights into student learning behavior.	3.83	0.85	High
4	Post-lesson discussions help identify areas for instructional improvement and professional growth.	3.93	0.75	High
5	Lesson study contributes to more effective classroom practices by promoting continuous instructional refinement.	3.76	0.74	High
Overall Mean		3.82	0.78	High

Very High (4.20–5.00); High (3.40–4.19); Moderate (2.60–3.39); Low (1.80–2.59); Very Low (1.00–1.79)

Table 2 presents the level of lesson study with an overall mean of 3.82 and an SD of 0.78, described as High, indicating that teachers actively engage in lesson study processes and benefit from its collaborative and reflective nature. This suggests that lesson study serves as an effective professional development approach for enhancing instructional practices and promoting continuous improvement.

Among the indicators, the highest mean was obtained by participation in lesson study encouraging the application of research-based teaching strategies, with a mean of 4.01 and an SD of 0.88, described as High. The next highest indicator was post-lesson discussions helping identify areas for instructional improvement and professional growth, with a mean of 3.93 and an SD of 0.75, described as High, indicating the value of reflective dialogue in improving teaching practices.

Following this was observing peer-taught lessons during lesson study providing valuable insights into student learning behavior, with a mean of 3.83 and an SD of 0.85, described as High. The indicator on lesson study contributing to more effective classroom practices through continuous instructional refinement obtained a mean of 3.76 with an SD of 0.74, also described as High.

Finally, the lowest mean was recorded for the process of collaboratively planning lessons during lesson study promoting deeper instructional reflection, with a mean of 3.57 and an SD of 0.68, described as High, indicating slight variation in the depth of reflective practice.

The current results revealed that the level of lesson study was high, indicating that teachers effectively engaged in collaborative planning, reflective discussions, and the application of research-based teaching strategies, which supports the findings of Weaver et al. (2024) and Bufasi et al. (2024), who emphasized that lesson study enhances instructional effectiveness through collaborative reflection, as well as Wijarwadi et al. (2025), which highlighted that structured lesson study practices contribute to improved teaching approaches and continuous professional growth.

Conclusion and Recommendations

Summary of Findings

The findings revealed that the level of professional development practices in terms of Learning Action Cell sessions, lesson study, coaching and mentoring, and in-service training was generally high, indicating that these initiatives were consistently implemented and



actively experienced by teachers. The results further showed that collaborative and reflective practices such as lesson study and Learning Action Cell sessions were particularly effective, while coaching and mentoring, although beneficial, demonstrated slightly lower consistency in influencing classroom practices.

In terms of teachers' self-efficacy, the findings indicated that the levels of instructional strategies, classroom management, and student engagement were all high, suggesting that teachers possessed strong confidence in their ability to deliver effective instruction, manage classroom environments, and engage learners. Teachers demonstrated particular strength in adapting instruction and maintaining classroom control, while areas such as the use of diverse strategies and interactive engagement approaches required further enhancement. Overall, teachers exhibited a high level of self-efficacy, reflecting their readiness to perform key instructional roles effectively.

The findings also revealed that there was a significant and moderately high relationship between professional development practices and teachers' self-efficacy. This indicates that as teachers' participation in professional development activities increased, their level of confidence in executing instructional tasks also improved.

Finally, the findings showed that among the domains of professional development practices, in-service training, Learning Action Cell sessions, and lesson study significantly influenced teachers' self-efficacy, while coaching and mentoring did not show a significant independent influence. Among these, in-service training emerged as the strongest predictor, indicating its critical role in enhancing teachers' instructional competence and confidence. These results suggest that structured and well-aligned professional development initiatives have a substantial impact on improving teachers' self-efficacy, highlighting the need to strengthen and sustain such programs in educational settings.

Conclusion

The study concluded that professional development practices and teachers' self-efficacy were both at a high level, indicating that teachers actively participated in learning initiatives and demonstrated strong confidence in instructional delivery, classroom management, and student engagement. Specifically, Learning Action Cell sessions, lesson study, coaching and mentoring, and in-service training were consistently implemented, while teachers exhibited competence in applying effective teaching strategies and managing learning environments. Furthermore, the study established a significant and moderately strong relationship between professional development practices and teachers' self-efficacy. Among the domains, in-service training, Learning Action Cell sessions, and lesson study significantly influenced teachers' self-efficacy, while coaching and mentoring did not independently show a significant effect.

The findings generally supported the theoretical foundations of the study. The results aligned strongly with Bandura's Social Cognitive Theory, as increased participation in professional development enhanced teachers' self-efficacy through experience, feedback, and practice. The findings also supported Adult Learning Theory, as teachers benefited from relevant and experiential professional development activities that improved their competence. However, the results only partially supported the Theory of Constructive Alignment, as not all professional development domains equally influenced self-efficacy, particularly coaching and mentoring.

Recommendations

Based from the results of this study, the following recommendations were proposed:

1. School Heads and Instructional Leaders may strengthen the implementation of Learning Action Cell (LAC) sessions and lesson study by allocating sufficient time and providing structured guidelines to deepen reflective practices, particularly in collaborative lesson planning where improvement was identified.
2. The Department of Education (DepEd) Division Office may enhance the design and delivery of in-service training programs by ensuring that training content is closely aligned with teachers' actual instructional needs and classroom realities to maximize its impact on teaching effectiveness.
3. Master Teachers and Department Heads may intensify coaching and mentoring programs by providing more consistent, classroom-based support and follow-up observations to improve their impact on classroom management and student engagement.
4. Teachers may proactively expand their use of diverse and interactive instructional strategies, particularly in fostering student confidence and engagement, by integrating varied teaching approaches and learner-centered activities in their daily classroom practices.

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Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study; all data used were obtained from previously published sources as cited in the reference list.

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