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PROFESSIONAL DEVELOPMENT AND SENSE OF EFFICACY OF KINDERGARTEN TEACHERS IN NEW BATAAN DISTRICT, DAVAO DE ORO

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ABSTRACT

This study examined the relationship between professional development and the sense of efficacy of kindergarten teachers in selected school district of Davao de Oro Division. Specifically, it determined the level of professional development in terms of content focus, active learning, coherence and alignment, sustained duration, and collective participation; the level of sense of efficacy in terms of student engagement, instructional strategies, and classroom management; the significant relationship between the two variables; and the domains of professional development that significantly influenced teachers' sense of efficacy. A quantitative-correlational research design was employed using validated survey instruments. The respondents were thirty-six kindergarten teachers in New Bataan District, Davao de Oro, selected through total enumeration. Data were analyzed using weighted means, standard deviation, Pearson Product-Moment Correlation, and multiple regression analysis at a 0.05 level of significance. Findings revealed that the level of professional development was high, with coherence and alignment obtaining the highest mean, while sustained duration received the lowest rating. The overall sense of efficacy of kindergarten teachers was also high, with instructional strategies as the highest domain. Results further showed a significant positive relationship between professional development and sense of efficacy. Multiple regression analysis revealed that active learning and sustained duration significantly influenced teachers' sense of efficacy, with active learning identified as the strongest predictor. The study concluded that well-planned, relevant, and continuous professional development enhanced kindergarten teachers' confidence and instructional effectiveness. It was recommended that school heads strengthen sustained and active learning opportunities to further improve teacher efficacy and classroom performance.

KEYWORDS: *Professional development; Sense of efficacy; Kindergarten teachers; New Bataan district; Davao de Oro*

INTRODUCTION

This study investigates the relationship between ongoing professional development (PD) and the sense of self-efficacy among kindergarten educators. Given the critical role of early childhood education in shaping lifelong learning, understanding how professional development influences teachers' confidence and effectiveness is essential. Professional training is viewed as a vital means of enhancing teachers' knowledge, skills, motivation, and sense of efficacy. This research seeks to provide insights that can inform policy and practice, ultimately contributing to the improvement of education quality in the formative years.

Globally, kindergarten teachers face significant challenges in professional development. In many low- and middle-income countries, professional development programs are often inadequate, lacking in quality and relevance to teachers' needs. This inadequacy hampers teachers' ability to effectively deliver curricula and manage classrooms, which negatively affects learners' outcomes. Furthermore, the rapid changes in educational technology and pedagogy demand continuous learning, yet many professional development programs fail to keep pace with these developments. Duraku et al. (2022) emphasized that without relevant and ongoing training, teachers struggle to adapt to evolving classroom demands, limiting their efficacy.

Additionally, the coronavirus-19 pandemic has exacerbated these challenges, with many teachers struggling to adapt to remote or blended learning environments without sufficient training. Chin, et al. (2022) found that teachers across different contexts, faced barriers such as limited access to technology, lack of training in digital tools, and insufficient support systems, which hindered effective professional development during the pandemic. These barriers highlight the global urgency of providing accessible, need-based professional development opportunities.

In the Philippines, the Department of Education (DepEd) has recognized the importance of professional development for teachers. However, issues persist, including the mismatch between professional development offerings and teachers' actual needs, and the insufficient quality of available programs. These problems contribute to low teacher efficacy, particularly in

early childhood education settings. Velos, et al. (2024) noted that even after the pandemic, many teachers continued to face difficulties in adjusting their teaching strategies, which underscores weaknesses in existing professional development systems.

Moreover, the implementation of the Kindergarten curriculum has faced challenges such as limited preparation time, inadequate development of instructional materials, and a pressing need for more teacher training. Chin et al. (2022) argued that despite the demand for competence in digital and pedagogical practices, support for teachers in the Philippine context remains fragmented and insufficient. These factors impede the effective delivery of the curriculum and affect teachers' confidence in their teaching abilities.

In New Bataan District, Davao de Oro, kindergarten teachers face unique challenges arising from geographical remoteness and limited educational resources. These constraints restrict access to high-quality professional development programs and support systems, which can affect teachers' professional growth and overall sense of efficacy. Many kindergarten teachers in the district have limited opportunities for training that are aligned with the requirements of the kindergarten curriculum, particularly in areas such as early literacy instruction, classroom management, and the implementation of developmentally appropriate practices. Localized barriers, including shortages of instructional materials and teaching resources, further intensify these challenges, especially in rural schools within New Bataan (Fabrigas & Paglinawan, 2025). Without adequate and continuous professional learning, many kindergarten teachers may feel underprepared to meet the diverse needs of young learners, highlighting the need for targeted interventions to strengthen their teaching competence and confidence in the classroom.

THE STUDY'S OBJECTIVES

This study aimed to determine the relationship between professional development and sense of efficacy of kindergarten teachers in selected school districts of Davao de Oro Division. Specifically, it aimed to:

1. determine the level of professional development of kindergarten teachers in terms of:
   1.1 content focus;
   1.2 active learning;
   1.3 coherence and alignment;
   1.4 sustained duration; and
   1.5 collective participation.
2. determine the level of sense of efficacy of kindergarten teachers in terms of:
   2.1 efficacy in student engagement;
   2.2 efficacy in instructional strategies; and
   2.3 efficacy in classroom management.
3. determine if there is a significant relationship between professional development and sense of efficacy of kindergarten teachers.
4. identify which domains of professional development significantly influence the sense of efficacy of the respondents.

METHODOLOGY

This chapter presents the methodology used to investigate the relationship between professional development and the sense of efficacy of kindergarten teachers. It describes the research design, identifies the respondents, and explains the instruments and procedures for data collection. The chapter also outlines the steps taken to ensure accuracy, reliability, and ethical integrity, as well as the methods used to analyze the data to address the research questions and objectives. For clarity, it is divided into the following sections: Research Design, Ethical Considerations, Research Respondents, Research Instruments, Data Gathering Procedure, and Data Analysis.

Method Used

This study employs a quantitative-correlational research design to examine the relationship between professional development and the sense of efficacy of kindergarten teachers. This approach enables a systematic investigation using measurable data, which allows the researcher to identify patterns, associations, and trends between the variables (Thomas & Zubkov, 2023). The study focuses on naturally occurring teacher practices and beliefs without manipulating the environment, which ensures that findings reflect authentic early childhood education contexts.

Specifically, the research captures the current state of professional development, which includes content focus, active learning, coherence and alignment, sustained duration, and collective engagement, alongside the dimensions of teacher efficacy, such as efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Using statistical methods, the study examines the strength and direction of the relationship between professional development and teachers' sense of efficacy. Correlational analysis, as highlighted by Cohen et al. (2018), is employed to

determine whether and to what extent variations in professional development are associated with variations in sense of efficacy, which provides empirical evidence of the interplay between these constructs.

Through this design, the study generates both descriptive data portraying the current status of the variables and inferential data quantifying their relationship through statistical tools. This ensures that data collection, analysis, and interpretation are conducted systematically, rigorously, and ethically. The research provides evidence-based insights that can guide professional development initiatives, strengthen teachers' instructional practices, and enhance student learning outcomes in kindergarten classrooms.

Sources of Data

The study employed a total enumeration technique, wherein all kindergarten teachers in New Bataan District, Davao de Oro who met the inclusion criteria were included as respondents. This method eliminates sampling bias and ensures full representation of the target population, thereby strengthening the internal validity of the findings. A total of thirty-six (36) teachers participated, making the approach feasible given the relatively small and manageable population size. Total enumeration is considered highly reliable because it captures the entire qualified population, resulting in comprehensive and accurate data (Etikan & Bala, 2017; Taherdoost, 2016).

The inclusion criteria specify that only kindergarten teachers in New Bataan District, Davao de Oro are eligible to participate. Respondents must be currently assigned as kindergarten teachers in the said district, must have at least three years of teaching experience, and must be willing to participate in the study. These criteria ensure that participants possess adequate experience, maturity, and professional exposure to provide meaningful insights regarding their professional development and sense of efficacy.

The inclusion criteria are carefully set to strengthen the validity and depth of the study. Kindergarten teachers specifically assigned in New Bataan District are included to ensure that the findings reflect the actual professional development practices and efficacy levels within the district. The age range of 30 to 50 years old is chosen because teachers within this bracket are generally more stable in their careers, capable of reflective judgment, and likely to have experienced multiple professional development programs. A minimum of three years of teaching experience ensures that respondents have sufficient exposure to instructional responsibilities and have developed a sense of their own teaching efficacy. Finally, willing participation is required to uphold ethical standards and ensure that responses are honest, voluntary, and free from coercion.

Data Gathering Instrument

The primary instruments of this study were structured questionnaires designed to measure the Professional Development and Sense of Efficacy of kindergarten teachers. These questionnaires consisted of closed-ended Likert-scale items that quantified teachers' perceptions and experiences. The instruments were divided into two parts: the first focused on Professional Development, while the second measured Sense of Efficacy.

The instrument on Professional Development was adapted from Desimone (2009) and was structured around five dimensions: Content Focus, Active Learning, Coherence and Alignment, Sustained Duration, and Collective Participation. Each dimension consisted of four items, resulting in a 20-item construct. The instrument underwent expert validation to ensure clarity, relevance, and alignment with the construct, which yield an overall rating of 4.09, which was interpreted as Very Good. Following validation, a pilot test was conducted to determine the instrument's reliability. The results revealed Cronbach's alpha coefficient of 0.938, which indicates excellent internal consistency (Taber, 2018). Responses were interpreted using the following scale:

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20 - 5.00	Very High	The professional development is always evident.
3.40 - 4.19	High	The professional development is oftentimes evident.
2.60 - 3.39	Moderate	The professional development is occasionally evident.
1.80 - 2.59	Low	The professional development is seldom evident.
1.00 - 1.79	Very Low	The professional development is never evident.

The instrument for Sense of Efficacy was adapted from Tschannen-Moran and Hoy (2001) and included three dimensions: Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management. Each dimension consisted of eight items, resulting in a 24-item construct.

Expert validation was conducted to ensure that the items accurately measured each dimension, yielding an overall rating of 4.05, which was interpreted as Very Good. The instrument was then pilot-tested with a different group of kindergarten teachers who were not part of the actual respondents of the study. The pilot test results revealed Cronbach's alpha coefficient of 0.941, which indicates excellent internal consistency (Taber, 2018). Responses were interpreted using the following scale:

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20 - 5.00	Very High	Sense of efficacy is always evident.
3.40 - 4.19	High	Sense of efficacy is oftentimes evident.
2.60 - 3.39	Moderate	Sense of efficacy is occasionally evident.
1.80 - 2.59	Low	Sense of efficacy is seldom evident.
1.00 – 1.79	Very Low	Sense of efficacy is never evident.

Both instruments are contextualized to the objectives of this study, and feedback from the adviser, panel members, and expert validators will be incorporated to refine the tools and ensure their validity. These instruments aim to provide accurate, reliable, and meaningful data on how Professional Development relates to Sense of Efficacy among kindergarten teachers, which support evidence-based recommendations for teacher development and improved classroom practices.

Sampling Technique

This study employed the total enumeration sampling technique, wherein all members of the target population who met the inclusion criteria were included as respondents. Total enumeration is appropriate when the population size is manageable and when the researcher intends to obtain complete representation of all qualified participants. This technique minimizes sampling bias and increases the reliability and accuracy of the findings because it captures the entire population rather than selecting only a sample (Etikan & Bala, 2017; Taherdoost, 2016).

The respondents of the study consisted of thirty-six (36) kindergarten teachers in New Bataan District, Davao de Oro. Since the total number of qualified kindergarten teachers in the district was limited and accessible, total enumeration was considered the most suitable sampling technique. This allowed the researcher to gather comprehensive data regarding the teachers' professional development and sense of efficacy without excluding any eligible participant.

The inclusion criteria required that respondents must be currently assigned as kindergarten teachers in public schools within New Bataan District, must have at least three (3) years of teaching experience, and must be willing to participate in the study. These criteria were established to ensure that the participants had sufficient teaching exposure, professional experience, and familiarity with professional development activities, enabling them to provide relevant and reliable responses. Teachers who did not meet these criteria were excluded from the study.

The use of total enumeration strengthened the validity of the study by ensuring that the findings accurately reflected the actual conditions and experiences of kindergarten teachers in the district. This sampling technique supported the quantitative-correlational design by providing complete and dependable data necessary for examining the relationship between professional development and sense of efficacy.

Procedure of the Study

The data gathering procedure for this study follows a systematic and ethically guided process to ensure the accuracy, reliability, and integrity of the results. The phases include the ethics review, validation of the instruments, endorsement from the dean, securing the permit to conduct the study, and the administration and retrieval of questionnaires among kindergarten teachers in New Bataan District, Davao de Oro.

Before the conduct of the study, the research proposal undergoes an ethics review on February 11, 2026, to ensure compliance with ethical standards for research involving human participants. The review confirms that the rights, welfare, and confidentiality of the kindergarten teachers in New Bataan District, Davao de Oro are protected throughout the research process. Ethical principles such as voluntary participation, informed consent, privacy, and data protection are strictly observed in accordance with the Data Privacy Act of 2012.

The research instruments measuring professional development and sense of efficacy are subjected to expert validation on March 6, 2026 to ensure clarity, relevance, and alignment with the intended constructs. Expert feedback is incorporated to refine and improve the instruments. On the other hand, a pilot test was conducted with a separate group of kindergarten teachers from other district in Davao de Oro on March 12, 2026. The pilot study determines the reliability of the instruments and confirms that the questionnaire items function effectively prior to the actual data gathering in New Bataan District, Davao de Oro.

Following the validation and ethics processes, the researcher secures an endorsement letter from Atty. Dante O. Calamba PhD, Dean of the Graduate School, Rizal Memorial Colleges, Inc., on February 21, 2026. This endorsement verifies that the study is academically sound, ethically compliant, and suitable for implementation among kindergarten teachers in New Bataan District, Davao de Oro.

After securing the dean's endorsement, the researcher requests formal permission to conduct the study from the Schools Division Superintendent of Davao de Oro Division on March 2, 2026. A written request detailing the purpose of the study,

the target respondents, and the data collection procedures is submitted. Upon approval, the researcher presents the approved permit to conduct to the District Supervisor of New Bataan District, as well as to the school heads of all participating schools under the said district. This step ensures full institutional support, cooperation, and proper coordination for the implementation of the data collection. Communication with the school heads in New Bataan District, Davao de Oro is made to finalize schedules and logistical arrangements necessary for the smooth administration of the research instruments. The validated questionnaires on professional development and sense of efficacy are distributed to the 36 kindergarten teachers who meet the inclusion criteria on March 11, 2026, in New Bataan District, Davao de Oro. Before answering the questionnaires, teachers are oriented towards the objectives of the study and are reminded of key ethical considerations such as voluntary participation, confidentiality, and their right to withdraw from the study at any point without penalty. Informed consent is secured from all respondents prior to participation.

The questionnaires are administered in either printed or secure digital format, depending on the accessibility and preference of the respondents. Participants are given sufficient time to complete the survey. All accomplished questionnaires are retrieved on March 18, 2026, and are carefully checked, encoded, and organized for further analysis. The collected data are then prepared for statistical processing to determine the relationship between professional development and sense of efficacy among kindergarten teachers in New Bataan District, Davao de Oro. Throughout the entire procedure, confidentiality, accuracy, and ethical standards are strictly maintained to uphold the credibility of the study's findings.

Statistical Treatment

For a comprehensive interpretation and analysis of the data, the following statistical tools were employed:

To address the first two research subproblems, which determined the level of professional development and the level of sense of efficacy of kindergarten teachers, the weighted mean was utilized. This provided an overview of the participants' average responses. Standard deviation was used to determine the degree of consistency or variability in the responses of the respondents.

To answer the third research subproblem, which examined whether a significant relationship existed between professional development and sense of efficacy, the Pearson Product-Moment Correlation Coefficient (r) was employed. This statistical test measured the strength and direction of the linear relationship between the two variables and determined whether higher levels of professional development corresponded to higher levels of teacher efficacy.

For the fourth research subproblem, which aimed to determine which dimensions of professional development significantly influenced the sense of efficacy of kindergarten teachers, multiple regression analysis was used. This technique assessed the relative contribution of each dimension such as content focus, active learning, coherence and alignment, sustained duration, and collective participation to the overall sense of efficacy of the respondents.

Ethical Consideration

This study ensures that kindergarten teachers in New Bataan District, Davao de Oro are treated with respect, fairness, and care throughout the research process. Ethical principles such as informed consent, confidentiality, transparency, and risk minimization guide all procedures to protect participants' rights, well-being, and privacy.

Social Value. The study examines the relationship between professional development and the sense of efficacy of kindergarten teachers in New Bataan District, Davao de Oro. Findings provide insights that enhance teachers' professional growth, instructional practices, and early childhood education quality. Results offer evidence-based recommendations that support continuous professional development, effective teaching strategies, and inclusive classroom environments. Beyond the district and division, the findings may inform teacher training programs and early childhood education policies in other regions.

Informed Consent. Informed consent is obtained from all participating kindergarten teachers in New Bataan District, Davao de Oro before data collection begins. Participants receive clear explanations of the study's purpose, scope, and procedures. Participation is voluntary, and respondents may withdraw at any time without penalty. Consent forms use clear and accessible language, and teachers are encouraged to ask questions to ensure full understanding before participation.

Vulnerability of Respondents. Kindergarten teachers in New Bataan District, Davao de Oro, are not considered a vulnerable population. However, reflecting on professional development experiences and sense of efficacy may cause minor discomfort. To address this, the study uses structured, non-intrusive survey instruments. Teachers may skip any item that makes them uncomfortable and may withdraw from the study at any point without negative consequences.

Privacy and Confidentiality. The study prioritizes the privacy and confidentiality of kindergarten teachers in New Bataan District, Davao de Oro. All data are anonymized, and no identifying information appears in reports or analyses. Collected data are securely stored in password-protected files accessible only to the researcher. The study strictly adheres to the Data Privacy Act of 2012 to ensure confidentiality throughout the research process.

Risk, Benefits, and Safety. The study poses minimal risk to kindergarten teachers in New Bataan District, Davao de Oro, as it uses non-invasive survey questionnaires regarding professional development and sense of efficacy. Slight discomfort may occur when reflecting on teaching experiences, but teachers are free to skip any sensitive item. The benefits outweigh any minimal risk, as results inform professional development initiatives, strengthen teacher efficacy, and improve classroom practices and student learning outcomes. Participants also receive access to summarized results for their professional growth.

Justice. The principle of justice is upheld by ensuring that all eligible kindergarten teachers in New Bataan District, Davao de Oro have equal opportunity to participate. Participant selection is impartial and free from discrimination. Findings are shared fairly with teachers, school heads, supervisors, and other education stakeholders to ensure equitable access to the study's benefits.

Transparency. Transparency is maintained throughout the research process in New Bataan District, Davao de Oro. Teachers are fully informed about the study's objectives, procedures, potential risks, and benefits prior to participation. School heads and relevant supervisors receive updates regarding the progress of the study. Upon completion, results are disseminated to teachers, administrators, and policymakers to guide programs that enhance professional development and teacher efficacy.
Qualification of Researcher. The researcher is a graduate of Bachelor in Elementary Education (BEED) from a university in Bukidnon, providing a strong academic foundation in pedagogy, child development, and classroom instruction. In addition to formal education, the researcher has actively participated in various professional development trainings and school-based planning activities focused on classroom management and instructional improvement. These experiences have strengthened the researcher's understanding of effective teaching practices and early childhood education settings.

Furthermore, the researcher possesses adequate training in educational research and is knowledgeable about ethical principles such as informed consent, confidentiality, and responsible data management. These qualifications ensure that the study involving kindergarten teachers in New Bataan District, Davao de Oro is conducted in a systematic, professional, and ethical manner, maintaining the integrity and credibility of the research process.

Conflict of Interest. The researcher declares no conflict of interest in conducting this study in New Bataan District, Davao de Oro. The study is carried out independently, free from personal, professional, or financial bias. Any potential conflict that may arise is promptly disclosed to participants and stakeholders to maintain ethical integrity.

Adequacy of Facilities. Data collection takes place in safe, appropriate, and conducive environments in New Bataan District, Davao de, such as designated school areas or secure online platforms. Proper tools and secure data storage systems are used to ensure accuracy, comfort, and confidentiality throughout the research process.

Community Involvement. The study values the involvement of the educational community in New Bataan District, Davao de Oro. It aligns with the district's and division's goals of improving professional development and strengthening teacher efficacy in early childhood education. Feedback from teachers, school heads, and district supervisors is considered in refining research instruments. Upon completion, findings are shared with stakeholders to guide initiatives that support high-quality teaching and enhanced learning experiences for young children.

Results

This section presents the findings of the study based on the research objectives. It discusses the level of professional development of kindergarten teachers, their sense of efficacy, the relationship between these variables, and the professional development domains that significantly influence teacher efficacy.

Level of Professional Development of Kindergarten Teachers

The overall level of professional development of kindergarten teachers was **High** (M = 3.56, SD = 0.49). This indicates that professional development activities were often evident among the respondents. Among the five dimensions, **Coherence and Alignment** obtained the highest mean (M = 3.90, SD = 0.47), followed by **Collective Participation** (M = 3.60, SD = 0.56), **Content Focus** (M = 3.56, SD = 0.58), and **Active Learning** (M = 3.50, SD = 0.70). These results show that teachers generally perceived professional development programs as relevant, aligned with school goals, and useful in improving instructional practice.

However, **Sustained Duration** received the lowest mean (M = 3.22, SD = 0.57), interpreted as **Moderate**. This suggests that although teachers participate in professional development, many training activities may still be short-term or limited to one-time sessions. This implies the need for more continuous, structured, and follow-up-based professional development. These findings support the view that effective professional development should be content-focused, coherent, collaborative, active, and sustained to improve teaching quality and teacher growth (Desimone & Hall, 2023; OECD, 2024; Dunekacke et al., 2024).

Level of Sense of Efficacy of Kindergarten Teachers

The overall sense of efficacy of kindergarten teachers was also **High** (M = 3.65, SD = 0.25). This indicates that teachers generally have strong confidence in their ability to engage learners, use effective instructional strategies, and manage classroom behavior.

Among the dimensions, **Efficacy in Instructional Strategies** obtained the highest mean (M = 3.72, SD = 0.32). This shows that teachers are confident in applying different teaching methods, adjusting lessons, and providing alternative explanations when learners experience difficulty. **Efficacy in Classroom Management** followed with a mean of 3.66 (SD = 0.35), indicating that teachers are generally capable of establishing routines, maintaining discipline, and managing classroom behavior. Meanwhile, **Efficacy in Student Engagement** obtained a mean of 3.58 (SD = 0.29), which also reflects a high level of confidence in motivating learners and encouraging active participation.

Despite the high overall rating, some items were rated moderate, such as assisting families in supporting children's learning, using varied assessment strategies, and responding to defiant students. These results suggest that teachers may still need additional support in family engagement, assessment literacy, and behavior management. The findings are consistent with Tschannen-Moran and Hoy (2001), who emphasized that teacher efficacy influences persistence, adaptability, instructional effectiveness, and classroom success.

Relationship Between Professional Development and Sense of Efficacy

The results revealed a **significant positive relationship** between professional development and sense of efficacy among kindergarten teachers. The overall correlation was strong and significant (r = .770, p < .001). This means that higher levels of professional development are associated with higher levels of teacher efficacy.

Among the professional development dimensions, **Active Learning** had the strongest relationship with overall sense of efficacy (r = .736, p < .001), followed by **Collective Participation** (r = .705, p < .001), **Sustained Duration** (r = .667, p < .001), **Content Focus** (r = .626, p < .001), and **Coherence and Alignment** (r = .516, p < .001). These findings suggest that professional development becomes more meaningful when teachers actively participate, collaborate with peers, and engage in continuous learning experiences.

In terms of specific efficacy domains, professional development showed the strongest relationship with **Classroom Management** (r = .704, p < .001). This indicates that training programs may be particularly helpful in strengthening teachers' confidence in managing behavior, establishing routines, and maintaining positive learning environments. These findings support previous studies showing that sustained, collaborative, and active professional development improves teacher self-efficacy and classroom effectiveness (Wu et al., 2023; Vallotton et al., 2025; Dunekacke et al., 2024).

Influence of Professional Development on Sense of Efficacy

The regression analysis showed that professional development significantly influenced the sense of efficacy of kindergarten teachers. The model produced an R value of .785 and an R^2 value of .616, indicating that **61.6% of the variance in teachers' sense of efficacy** was explained by the five professional development dimensions. The regression model was significant, F = 34.033, p < .001.

Among the predictors, **Active Learning** significantly influenced teacher efficacy (β = .387, t = 3.821, p < .001), making it the strongest predictor. **Sustained Duration** also had a significant effect (β = .195, t = 2.083, p = .040). These results indicate that teachers' sense of efficacy improves when professional development includes hands-on participation, reflection, practice, and continuous learning opportunities.

Meanwhile, **Content Focus** (p = .489), **Coherence and Alignment** (p = .852), and **Collective Participation** (p = .056) were not significant individual predictors. However, they still contributed to the overall model. This suggests that while relevant content, alignment, and collaboration are important, active and sustained learning experiences have a stronger direct influence on teachers' confidence.

These findings align with Bandura's Social Cognitive Theory, which explains that self-efficacy develops through mastery experiences, modeling, and feedback. Active and sustained professional development provides teachers with opportunities to practice, observe, reflect, and improve. The findings also support Kolb's Experiential Learning Theory, which emphasizes that learning becomes deeper when individuals engage in concrete experience, reflection, conceptualization, and active experimentation.

Summary

The findings of the study were summarized as follows"

1. The level of professional development of kindergarten teachers was high, with an overall mean of 3.56 and a standard deviation of 0.49. Among the indicators, coherence and alignment had the highest mean of 3.90, followed

by collective participation (3.60), content focus (3.56), and active learning (3.50), all described as high. Sustained duration obtained the lowest mean of 3.22 with a moderate rating. The standard deviations ranged from 0.47 to 0.70, which indicates that the responses were relatively consistent. The overall findings showed that kindergarten teachers were actively engaged in professional development activities, particularly in areas aligned with curriculum goals and collaborative learning.

2. The sense of efficacy of kindergarten teachers was high, with an overall mean of 3.65 and a standard deviation of 0.25. Among the indicators, efficacy in instructional strategies obtained the highest mean of 3.72, followed by efficacy in classroom management (3.66) and efficacy in student engagement (3.58), all described as high. The standard deviations ranged from 0.29 to 0.35, which indicates that the responses were relatively consistent. The overall findings showed that kindergarten teachers had strong confidence in their ability to implement effective teaching strategies, manage classrooms, and actively engage learners in the teaching-learning process.
3. There was a significant relationship between professional development and sense of efficacy of kindergarten teachers, as all p-values were .000, which indicates significance at the 0.05 level. The overall correlation between professional development and overall sense of efficacy was strong and positive (r = .770), which shows that higher levels of professional development were associated with higher levels of teacher efficacy. Among the dimensions, the strongest relationship was found between professional development and efficacy in classroom management (r = .704), followed by efficacy in student engagement (r = .563) and efficacy in instructional strategies (r = .501). These findings suggest that teachers who actively participated in professional development activities tended to have greater confidence in managing classrooms, engaging students, and applying effective instructional strategies.
4. The multiple regression analysis showed that professional development significantly influenced the sense of efficacy of kindergarten teachers, with an overall model significance of $p = 0.000$ and an F-value of 34.033. The correlation coefficient ($R = 0.785$) indicated a strong relationship, while the coefficient of determination ($R^2 = 0.616$) revealed that 61.6% of the variation in teachers' sense of efficacy was explained by professional development. Among the indicators, active learning ($\beta = 0.387$, $p = 0.000$) and sustained duration ($\beta = 0.195$, $p = 0.040$) significantly influenced sense of efficacy, while content focus ($p = 0.489$), coherence and alignment ($p = 0.852$), and collective participation ($p = 0.056$) did not show significant influence. This indicates that active learning was the best predictor of kindergarten teachers' sense of efficacy.

Conclusions

Based on the findings of the study, the following conclusions are drawn: 1.

1. The kindergarten teachers generally experience high levels of professional development, with particular strength in Coherence and Alignment, which indicates that the professional development activities are relevant, well-structured, and closely aligned with teachers' instructional needs, which provide meaningful learning experiences. However, the dimension of Sustained Duration requires further attention, as ensuring long-term engagement and continuous skill reinforcement is essential for maximizing the benefits of professional development.
2. Furthermore, kindergarten teachers demonstrate a high overall sense of efficacy, which reflects their confidence in engaging students, implementing instructional strategies, and managing classrooms effectively. The respondents feel capable of performing their professional roles successfully, which enables them to foster productive and supportive learning environments that enhance student outcomes.
3. In addition, the analysis reveals a significant positive relationship between professional development and teachers' sense of efficacy, which indicates that higher levels of participation in professional development are associated with stronger confidence and effectiveness in teaching. Well-planned and relevant professional development initiatives directly contribute to enhancing teachers' self-efficacy and their ability to implement effective classroom practices.
4. Finally, among the dimensions of professional development, Active Learning and Sustained Duration were found to have the strongest influence on teachers' sense of efficacy. This finding highlights that hands-on engagement, collaborative activities, and continuous learning experiences are critical in strengthening kindergarten teachers' confidence and competence, hence, supports the delivery of high-quality education.

Recommendations

In the light of the findings and conclusions of the study, the following recommendations are offered:

Kindergarten teachers may actively participate in professional development activities, particularly those that involve hands-on learning, collaboration, and sustained engagement. They may also seek opportunities to apply learned strategies in the classroom to reinforce their efficacy in student engagement, instructional strategies, and classroom management. Continuous self-reflection and peer collaboration may further strengthen their teaching competencies and maintain high levels of self-efficacy.

School heads may prioritize the planning and implementation of professional development programs that are coherent, aligned with teachers' instructional needs, and sustained over time. They may provide mentorship, feedback, and follow-up support to ensure teachers can effectively apply new strategies in the classroom. Facilitating active learning experiences

and creating opportunities for collaborative professional growth may help maximize the impact of professional development on teacher efficacy.

Learners may benefit from teachers' enhanced efficacy through more engaging, structured, and effective learning experiences. Encouraging learners' active participation in classroom activities and providing opportunities for collaborative learning may complement teachers' professional growth and reinforce positive student outcomes.

Parents may actively support the school's professional development initiatives by encouraging their children's learning at home and maintaining open communication with teachers. Through participation in parent-teacher discussions and monitoring students' academic progress, parents may reinforce the strategies implemented in the classroom and strengthen the home-school partnership.

Future researchers may explore additional factors that influence the sense of efficacy among kindergarten teachers, such as emotional resilience, peer support, and technology integration. Longitudinal studies on the impact of sustained professional development programs on teacher performance and student outcomes may provide deeper insights into effective practices in early childhood education.

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