

Collaborative Teaching Approaches and Instructional Effectiveness in Teaching Early Childhood Education

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Abstract. The study aimed to determine the extent of collaborative teaching approaches and the level of instructional effectiveness in early childhood education in public elementary schools in Talomo East District. Specifically, it examined how collaboration among teachers influences their instructional practices and effectiveness in delivering quality education to learners. This study employed a non-experimental quantitative research design using a descriptive-correlational method. A validated questionnaire was used as the primary data-gathering instrument, and universal sampling was applied due to the limited number of teachers in the research locale. A total of 120 public elementary school teachers participated in the study. The data were analyzed using mean, Pearson's r correlation, and regression analysis to determine the extent of variables, their relationships, and significant influences. The findings revealed that collaborative teaching approaches were practiced to an extensive degree among teachers, indicating active engagement in shared planning, instructional support, and collaborative assessment. Similarly, instructional effectiveness in early childhood education was also found to be extensive, reflecting strong teaching performance and effective classroom practices. Moreover, the results showed a significant positive relationship between collaborative teaching approaches and instructional effectiveness, suggesting that increased collaboration leads to improved instructional outcomes. Regression analysis further revealed that lesson planning, instructional delivery, and assessment practices significantly influence instructional effectiveness. Based on the findings, it is recommended that schools allocate dedicated time for co-planning and co-assessment activities and promote mentorship among teachers to strengthen collaboration. Teachers are encouraged to enhance their assessment practices through joint development of evaluation tools and to improve instructional delivery by sharing strategies and designing engaging, age-appropriate lessons that support learners' development.

KEY WORDS

1. collaborative teaching approaches
2. instructional effectiveness
3. early childhood education

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1. Introduction

In early childhood education, collaborative teaching offers many benefits, but it also comes with significant challenges that can affect both teachers and students. Coordinating schedules, aligning teaching methods, and balancing differing opinions often create stress and tension among teachers. Teachers may struggle to find the time and energy to plan lessons together while managing their individual classroom responsibilities. These difficulties can sometimes lead to inconsistent instruction or gaps in addressing each child's unique needs. Despite their shared goals, teachers may also face challenges in effectively communicating and integrating diverse strategies, which can slow down decision-making and impact classroom flow. However, even with these obstacles, when teachers work through these problems thoughtfully, the collaboration can become a powerful tool for improving learning experiences and supporting learner's growth in a more well-rounded, meaningful way.

The use of collaborative teaching approaches to improve instructional effectiveness in early childhood education supports a wide range of stakeholders within the educational system. For teachers, working together creates meaningful opportunities for professional growth as they share strategies, reflect on practice, and build collective expertise (Liu, et.al., 2023). Young learners benefit from richer instructional delivery, which often results in increased engagement and deeper understanding of lessons (Kim, et. al., 2025). School leaders such as school heads can strengthen the overall learning environment by fostering a culture of teamwork and innovation that enhances teaching practices for all staff. At the policy level, the Department of Education can use research findings on collaborative partnerships to guide improvements in teacher preparation and pol-

icy implementation, which helps ensure early childhood education achieves its intended goals. Furthermore, the insights and evidence from these studies provide future researchers with valuable reference points for further exploring the nuances of teacher collaboration and instructional effectiveness in diverse educational settings (Pusari, et. al., 2025).

The implementation of collaborative teaching approaches in early childhood education addresses a crucial dimension of educational reform that directly influences both teaching quality and learners' academic development. Early childhood education programs emphasize learner-centered instruction, active participation, and meaningful engagement, which require teachers to move beyond isolated teaching practices and adopt collaborative professional approaches. Through collaboration, teachers are able to exchange knowledge, refine instructional methods, and collectively respond to the diverse developmental needs of young learners. Research indicates that teacher collaboration strengthens instructional quality and enhances the clarity of instruction, which ultimately

contributes to improved learning outcomes in schools (Wijarwadi et al., 2025; Liu et al., 2023).

In the context of early childhood education, collaboration among teachers is particularly important because young learners require developmentally appropriate teaching strategies that support cognitive, social, and emotional development. Collaborative teaching practices allow teachers to jointly design lessons, implement engaging learning activities, and reflect on instructional outcomes. When teachers work together in lesson planning, instructional delivery, assessment, and reflection, they are able to share expertise, integrate diverse instructional strategies, and continuously improve their teaching

practices. Such collaboration encourages reflective dialogue among educators and promotes professional growth that strengthens classroom instruction and enhances learner engagement (Liu et al., 2023).

Furthermore, collaborative teaching supports innovation and instructional improvement in early childhood classrooms. Through regular interaction and shared professional experiences, teachers are able to develop creative teaching approaches that promote critical thinking and meaningful participation among learners. Collaboration also provides opportunities for teachers to examine classroom challenges collectively and identify strategies that improve instructional effectiveness. Studies have shown that collaborative professional practices among teachers foster a culture of shared responsibility for student learning and strengthen the overall quality of instruction in educational institutions (Andaya & Quinito, 2025).

Examining the impact of collaborative teaching on instructional effectiveness is therefore essential for strengthening educational practice. Understanding how collaboration influences lesson planning, teaching strategies, and assessment practices provides valuable insights into improving teaching quality in early childhood education. Research further indicates that collaborative professional relationships among teachers can indirectly enhance student achievement by improving instructional quality and strengthening teacher self-efficacy in classroom instruction (Gamboa, 2023; Li et al., 2025).

The significance of studying collaborative teaching also extends to educational leadership and policy development. Evidence-based findings on teacher collaboration can guide schools and policymakers in designing professional learning communities and institutional structures that encourage collaborative practices. By fostering a culture of collaboration, schools can support teachers in continuously improving their instructional practices while ensuring that

early childhood education programs achieve their goals of holistic child development and meaningful learning experiences.

From a global perspective, Shand and Goddard (2024) conducted a longitudinal study to examine how both initial levels of teacher collaboration and changes in collaboration over time influence key outcomes in education. They discovered that teachers who already collaborated effectively tended to have better instructional practices, but even more importantly, increases in collaborative behaviors over time further improved teaching quality. Their study showed that growing collaboration strengthens differentiated instruction, fosters a shared sense of responsibility among teachers, and builds a positive instructional climate. These three areas effective teaching, collective focus on learning, and trust among colleagues and stakeholders were identified as essential dimensions of instructional effectiveness. Overall, the research highlights that nurturing ongoing collaboration among teachers is critical for sustaining and enhancing high-quality educational outcomes.

Another point is, studies in international contexts support these findings. In the of Wei Xie et al., (2023) explore the effects of teacher collaboration on instructional practices in China and England. Their structural equation modeling revealed that higher levels of perceived collaboration were associated with greater implementation of learner-centered and differentiated teaching strategies. Such approaches are central to instructional effectiveness, as they allow teachers to tailor lessons to diverse learner needs and foster active engagement core objectives of the early childhood education curriculum.

Across K to 12 systems worldwide, studies consistently show that collaborative teaching through co-planning, joint assessment, peer observation, and professional learning communities strengthens instructional clarity, classroom climate, and teachers' use of learner-centered strategies. Recent evidence from a moderated-

mediation study finds that teacher collaboration improves instructional clarity directly and indirectly via higher teacher self-efficacy, with effects amplified when organizational commitment is strong key ingredients of instructional effectiveness in K to 12 classrooms (Park, Mao, & Choi, 2025).

In the Philippines, teacher collaboration has emerged as a pivotal factor in enhancing instructional effectiveness within K to 12 settings, particularly in the Philippine context where curriculum reform emphasizes learner-centered pedagogy. A descriptive-correlational study by Rosita Gamboa (2023) examined faculty members at Cagayan State University's Sanchez Mira campus. It found a strong, statistically significant relationship between teacher collaboration through shared dialogue and training and instructional effectiveness. This underscores that when teachers engage in collaborative practices, such as exchanging ideas and co-developing lessons, their instructional performance tends to improve markedly.

National investigations during and after the shift to blended and online modalities also underline how collaborative approaches to assessment and lesson design help sustain learning quality under varying conditions. Research on collaborative summative assessment in Filipino high schools reported that group assessment practices contribute to the development of teamwork, communication, and academic performance showing that collaboration in both instruction and evaluation supports the broader aims of the Early Childhood Education Curriculum. These national studies recommend institutionalizing Professional Learning Communities (PLCs), regular peer coaching, and collaborative assessment design as policy priorities to improve instructional effectiveness across schools (Suaco, 2023).

Auben-Alfonso (2023) recent national studies show that when teachers engage in shared planning, peer observation, and Professional

Learning Communities (PLCs), they are better able to align lesson objectives with K to 12 standards, design common formative assessments, and respond to learners' diverse needs all of which translate into clearer instruction and improved classroom practices. Evidence from a descriptive-correlational study on a university campus found a significant association between collaborative practices and higher teaching-effectiveness ratings, suggesting that structured opportunities for teacher interaction and resource-sharing help raise the overall quality of instruction.

Despite the promising findings of Ainin, Tampus, and Eliseo (2025), several gaps remain in the local context of Davao City that limit the full potential of teacher collaboration. Many schools still face challenges such as limited time for joint planning, high teaching loads, and uneven access to experienced teacher leaders, which can hinder consistent collaborative practices. Additionally, there is often a lack of formal structures or policies to support ongoing peer mentoring, shared decision-making, and curriculum co-creation, leaving collaboration dependent on individual initiative rather than being systemic. Monitoring and evaluating the outcomes of collaborative efforts is also weak, making it difficult to measure their impact on learner learning and instructional quality. Addressing these gaps requires stronger administrative support, targeted professional development, and clear guidelines to ensure that collaborative practices are sustainable, inclusive, and able to benefit all schools and learners in the region.

In Talomo Central Elementary School, despite the recognized value of collaborative teaching approaches in improving instructional effectiveness, there remains a need to closely examine how these practices are actually implemented and sustained in the local context. While studies conducted in Talomo East District have shown that co-planning, peer observation, and joint assessment contribute to clearer les-

son delivery, increased learner engagement, and better alignment of assessments, it is not fully understood whether teachers in Talomo Central Elementary School experience the same level of collaboration or achieve similar outcomes. There may be variations in how often teachers collaborate, the quality of their interactions, and the level of institutional support provided for such practices.

Moreover, existing research tends to focus on general improvements in instructional effectiveness without exploring deeper, school-specific challenges such as time constraints, workload pressures, differences in teaching experience, and limited access to structured Pro-

1.1. Theoretical and Conceptual Framework—This study anchored on the Social Constructivist Theory (Vygotsky, 1978) as cited by Anvarovna (2022). This theory emphasizes that learning occurs through social interaction and collaboration. In the K to 12 contexts, when teachers engage in collaborative teaching such as lesson study, team teaching, or professional learning communities they share expertise, co-construct knowledge, and refine instructional strategies together. This collective process enhances instructional effectiveness by ensuring that lessons are not only teacher-centered but also learner-centered. Through collaboration, teachers scaffold each other's professional growth in much the same way they scaffold learner learning. As a result, instruction becomes more adaptive, reflective, and aligned with the diverse needs of learners.

This is also supported on Collective Teacher Efficacy Theory by Hattie (2016) as cited by Andaya et al., (2025). This theory emphasizes that self-efficacy influences behavior and outcomes. Expanding this, collective teacher efficacy refers to teachers shared belief in their collective ability to positively influence learner learning. Research by John Hattie places this

fessional Learning Communities (PLCs). There is also a lack of localized data that captures teachers' lived experiences, perceptions, and difficulties in engaging in collaborative teaching within early childhood education settings. These gaps suggest the need for a more focused investigation that not only measures the extent of collaborative practices in Talomo Central Elementary School but also identifies the barriers that may hinder their consistent implementation. Addressing these concerns can provide a clearer basis for developing targeted interventions that will strengthen collaboration and ultimately enhance teaching and learning outcomes in the school.

as the single most impactful factor on learner achievement. In the K to 12 curriculum, collaborative teaching approaches such as co-planning, peer observation, and shared assessment strengthen teachers' confidence in their collective capacity. This heightened sense of efficacy leads to more effective instructional delivery, greater persistence in addressing learner challenges, and improved learning outcomes.

Another theory on Distributed Leadership Theory by Spillane (2006) as cited by Balacuit et al. (2024). This theory asserts that leadership in schools is not confined to principals or administrators but is shared among teachers, staff, and the wider school community. In collaborative teaching environments, instructional leadership is distributed as teachers co-create lesson plans, evaluate instructional practices, and solve classroom challenges together. This shared responsibility improves instructional effectiveness in teaching early childhood education by fostering innovation, encouraging accountability, and ensuring instructional practices are continuously improved. When teachers lead and learn from one another, instructional practices become more dynamic, sustainable, and effective.

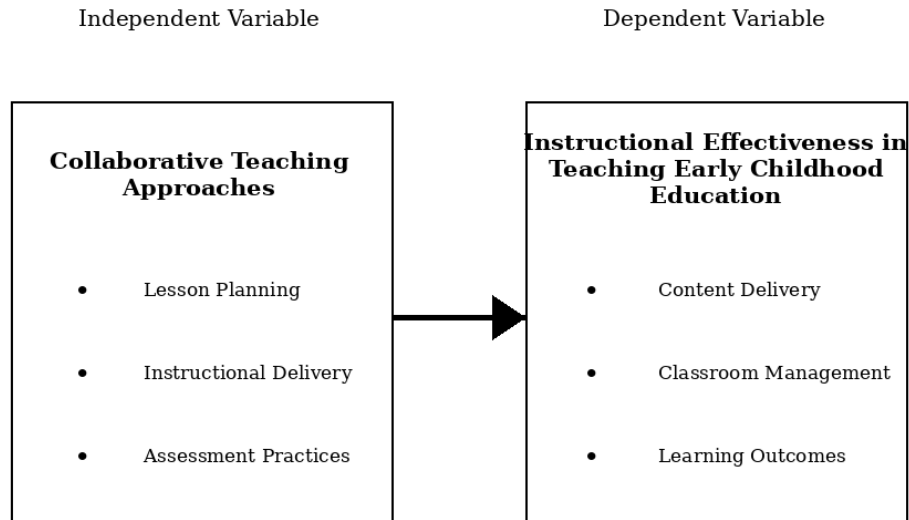


Fig. 1. Theoretical and Conceptual Framework of the Study

2. Methodology

This chapter discusses the research methods, which give direction in this investigation. It includes the research design, research respondents of the study, research instrument, and the data gathering procedures.

2.1. Research Design—This study adopted a non-experimental quantitative research design utilizing the descriptive-correlational method to explore the relationship between the impact of collaboration of teaching approaches and instructional effectiveness in teaching early childhood education in public elementary schools in Talomo East District, Division of Davao City. According to Aquino (2024), the descriptive-correlational method was commonly used when the goal was to determine the degree of association between two or more variables without manipulating them. It was particularly suitable when the variables under investigation naturally occurred and were not subject to experimental control.

In support of this, Domingo and Ferrer (2025) emphasized that this method allowed researchers to describe the existing conditions and explain the patterns that emerged from the data. In this context, the descriptive aspect of

the study aimed to examine collaboration in teaching approaches and instructional effectiveness in teaching early childhood education,

which was intended to enhance the quality of education by fostering teamwork among teachers, learners, and school leaders. Through shared planning, co-teaching, and the integration of diverse strategies, collaboration ensured that instruction addressed varied learning needs, promoted critical thinking, and developed 21st century skills. It also supported the development of inclusive and learner-centered classrooms where learners were actively engaged in meaningful activities. Ultimately, this collaborative effort strengthened the overall effectiveness of teaching and learning and prepared learners to become competent, adaptable, and responsible individuals in a rapidly changing world.

2.2. Sources of Data—The study on collaborative teaching approaches and instructional effectiveness in teaching early childhood educa-

tion used both primary and secondary sources of data. The primary data were gathered from public elementary school teachers who served as the respondents, providing firsthand insights into how they collaborate in lesson planning, instructional delivery, and assessment, as well as how effective their teaching practices are in the classroom. A validated questionnaire was used to collect their responses in a clear and structured manner. On the other hand, secondary data were obtained from related literature, research studies, academic journals, and online educational resources to support the study's framework and provide deeper understanding of the concepts involved. Relevant policies and documents from the Department of Education (DepEd) were also reviewed to give context to collaborative teaching practices and instructional effectiveness in early childhood education.

2.3. Research Instrument—The data gathering instrument used in this study was a structured questionnaire designed to examine collaborative teaching approaches and instructional effectiveness in teaching early childhood education. The instrument was carefully adapted by the researcher to ensure its alignment with the specific objectives of the study and the context of public elementary schools implementing the K to 12 curriculum. It was divided into two main parts. The first part focused on collaborative teaching approaches, including practices such as lesson planning, instructional delivery, and assessment practices. The second part assessed instructional effectiveness in terms of content delivery, classroom management, and learning outcomes, particularly how these are influenced by collaborative efforts among teachers.

To ensure the validity of the instrument, the questionnaire underwent expert validation from selected professionals affiliated with Rizal Memorial Colleges. Their comments and suggestions were used to refine the clarity, relevance, and structure of the items. Additionally,

the instrument was subjected to pilot testing to determine the appropriateness and comprehensibility of each statement before its actual administration.

In terms of reliability, the revised questionnaire was administered to fifty (50) teachers from San Lorenzo Elementary School in Talomo West District. The responses gathered were analyzed using Cronbach's Alpha, which yielded a coefficient of 0.789, indicating an acceptable level of internal consistency. This suggests that the instrument is reliable for measuring the variables under investigation. Overall, the data gathering instrument was designed to effectively capture teachers' perspectives on collaborative teaching practices and their impact on instructional effectiveness in early childhood education.

Part I of the questionnaire examined the collaborative teaching approaches on instructional effectiveness in early childhood education, focusing on three key areas: lesson planning, instructional delivery, and assessment practices. Collaboration in teaching plays a vital role across these dimensions. In lesson planning, it allows teachers to exchange ideas, integrate subject matter, and design structured lessons that address the diverse needs of learners. During instructional delivery, collaborative and co-teaching strategies promote more engaging, interactive, and learner-centered classroom experiences that enhance student participation and understanding. In terms of assessment practices, collaboration supports the development of fair, comprehensive, and consistent evaluation tools, while also enabling teachers to use shared feedback in refining their instructional approaches. Collectively, these collaborative functions contribute to strengthening the quality and effectiveness of teaching within the K to 12 educational system.

Part 2 of the questionnaire centered on instructional effectiveness in teaching early childhood education, which aimed to promote qual-

ity education through clear content delivery, effective classroom management, and the attainment of desired learning outcomes. Instructional effectiveness was demonstrated when lessons were presented in an organized and engaging way, the classroom environment supported learning, and activities were aligned with the required competencies. Together, these prac-

tices enabled learners to acquire the knowledge, skills, and values necessary for their holistic development.

The perceptions of the respondents among the Talomo East District, Division of Davao City teachers were based on the following Five-point Likert rating scales:

Scale for Part I: Collaborative Teaching Approaches

Range	Descriptive Equivalent	Interpretation
4.20-5.00	Very Extensive	The collaborative teaching approaches is always evident.
3.40-4.19	Extensive	The collaborative teaching approaches is oftentimes evident.
2.60-3.39	Moderately Extensive	The collaborative teaching approaches is sometimes evident.
1.80-2.59	Less Extensive	The collaborative teaching approaches is rarely evident.
1.00-1.79	Not Extensive	The collaborative teaching approaches is not evident.

Scale for Part II: Instructional Effectiveness in Teaching Early Childhood Education

Range	Descriptive Equivalent	Interpretation
4.20-5.00	Very Extensive	Instructional effectiveness in teaching early childhood education is always evident.
3.40-4.19	Extensive	Instructional effectiveness teaching early childhood education is oftentimes evident.
2.60-3.39	Moderately Extensive	Instructional effectiveness in teaching early childhood education is sometimes evident.
1.80-2.59	Less Extensive	Instructional effectiveness in teaching early childhood education is rarely evident.
1.00-1.79	Not Extensive	Instructional effectiveness in teaching early childhood education is not evident.

2.4. Research Respondents and Sampling Technique—This study employed a probability sampling technique, specifically random sampling, to select respondents from Grade 1 to 3 public elementary school teachers in Talomo East District, Division of Davao City, who had 3 to 6 years of teaching experience in the Department of Education during School Year 2024–2025. From a total population of 171 teachers, a sample size of 120 respondents was determined using Slovin’s formula with a 5% margin of error. The use of random sampling was appro-

priate given

the wide geographic distribution of the teachers, as it ensured that each individual had an equal chance of being selected and that the sample accurately represented the population. This approach strengthened the reliability and credibility of the data by capturing diverse perspectives on collaborative teaching practices and instructional effectiveness. Prior to the actual data collection, the research instrument was pilot-tested among 50 teachers from another school to ensure its clarity, reliability, and suit-

ability, thereby enhancing the overall quality of the data gathered.

2.5. Data Gathering Procedure—Permission to conduct study. The data-gathering procedure began with the researcher securing the necessary permission to conduct the study from the Dean of the Graduate School (see Appendix A, p. 90). This step was carried out through the proper institutional channels to ensure that all requirements were duly complied with. Subsequently, on November 11, 2025, the study underwent evaluation by the RMC Research Ethics Committee as part of the initial ethical review process. After careful assessment, an endorsement from the Dean of the RMC Graduate School was granted on December 5, 2025, indicating formal institutional support for the conduct of the research.

Following these approvals, the researcher proceeded to seek authorization from the Schools Division Superintendent, who approved the conduct of the study on January 7, 2026 (see Appendix B, p. 91). With this approval in place, the final permission was obtained from the Public Schools District Supervisor (PSDS) of Talomo East District on January 22, 2026 (see Appendix C, p. 93), allowing the distribution of survey questionnaires to the identified schools. Once all necessary approvals were secured, the researcher proceeded with the data collection process in accordance with established protocols and ethical research standards.

Distribution and retrieval of questionnaires. After securing the permit to conduct the study, the researcher personally distributed the questionnaires to the school heads of the selected schools in Talomo East District, Division of Davao City. This was carried out on January 28, 2026, and continued on February 4, 2026 to ensure complete coverage of the target respondents. During the distribution, the researcher also provided clear instructions to the school heads regarding the proper administration of the questionnaires. These instructions were intended to guide the

teachers in answering the instrument accurately and consistently, ensuring the reliability of the data gathered for the study.

Collection and statistical treatment of data. The questionnaires were personally retrieved by the researcher on February 16, 2026. After collection, these were promptly forwarded to the designated statistician for detailed analysis. The researcher worked closely with the statistician in organizing and tabulating the gathered data to ensure accuracy and completeness. A thorough examination of the responses was then conducted, with appropriate statistical methods applied to interpret the findings. This systematic process allowed for a careful and reliable analysis of the data relevant to the study.

2.6. Data Analysis—The following statistical tools were used in the analysis and interpretation of the responses in this study:

Mean. It was used to determine the extent of collaborative teaching approaches on instructional effectiveness in teaching early childhood education of public elementary schools in Talomo East District, Division of Davao City. It was used as a statistical tool to measure collaborative teaching approaches on instructional effectiveness in teaching early childhood education because it provided a simple and reliable way to summarize data. By calculating the average responses from teachers, learners, or stakeholders, the mean gave a clear picture of overall perceptions and outcomes, making it easier to interpret results and identify general trends.

Standard Deviation. The standard deviation was used in this study as a measure of variability to determine the extent to which responses on collaborative teaching approaches and instructional effectiveness in teaching early childhood education deviate from the mean. Specifically, it provided a clearer understanding of how consistent or dispersed the teachers' responses were across the indicators of collaborative practices and instructional effectiveness. A smaller standard deviation indicates that the responses are closely

clustered around the mean, suggesting a higher level of agreement among respondents. On the other hand, a larger standard deviation reflects greater variability in responses, which implies differing perceptions or experiences among the teachers.

In the context of this study, the use of standard deviation helped the researcher interpret not only the overall level of collaborative teaching practices and instructional effectiveness but also the degree of uniformity in the participants' responses. This statistical measure, together with the mean, contributed to a more comprehensive analysis of the data, allowing for a more nuanced understanding of how collaborative teaching approaches are perceived and how they influence instructional effectiveness in early childhood education settings.

Pearson Product Moment Correlation Coefficient (Pearson-r). It was used to determine the extent of collaborative teaching approaches on instructional effectiveness in teaching early childhood education of public elementary schools in Talomo East District, Division of Davao City. This was used as a statistical tool to measure collaborative teaching approaches on instructional effectiveness in teaching early childhood education because it determined the strength and direction of the relationship between variables. For example, it showed whether higher levels of teacher collaboration were associated with greater instructional effectiveness.

By using Pearson-r, researchers gained a clearer understanding of how closely related collaboration and teaching outcomes were, allowing them to make data-driven conclusions. This helped in identifying significant patterns that informed policies, improved instructional strategies, and enhanced the overall implementation of the K to 12 Curriculum.

Multiple Linear Regression. This was used to determine the extent of collaborative teaching approaches on instructional effectiveness

in teaching early childhood education of public elementary schools in Talomo East District, Division of Davao City. It was used as a statistical tool on collaborative teaching approaches and instructional effectiveness in teaching early childhood education because it examined how several factors collectively influenced outcomes. For instance, it analyzed how lesson planning, instructional delivery, and assessment practices together predicted the level of instructional effectiveness.

This method provided a deeper understanding of which collaborative elements had the strongest effect and how they interacted with one another. By using multiple linear regression, researchers generated evidence-based insights that guided teachers, school heads, and policymakers in enhancing collaborative practices for better learner outcomes.

2.7. Ethical Consideration—The researcher carefully observed all established protocols and guidelines required in the conduct of the study, ensuring that each step

was carried out in accordance with proper research standards, particularly in the handling and management of population data. The survey questionnaire, together with the supporting literature used in the study, was submitted for review and evaluation to ensure its appropriateness and alignment with ethical requirements. After the Ethics Committee granted its approval, the researcher proceeded to the next phase of the study with full compliance to ethical considerations and with confidence that the necessary standards had been properly met.

Social Value. The social significance of collaborative teaching within the K to 12 curriculum is reflected in how it promotes unity, respect, and teamwork among teachers, learners, and school leaders. When educators work together, they are able to share knowledge, exchange teaching strategies, and provide mutual support in addressing the diverse needs of learners. At the same time, learners are exposed to a learning en-

vironment that values cooperation and inclusiveness, allowing them to develop similar attitudes in their own interactions. In this way, collaborative teaching contributes to the creation of a more supportive and learner-centered school environment where the contributions of both teachers and learners are acknowledged and appreciated.

Outside the classroom, collaboration also contributes to the development of essential social skills such as effective communication, empathy, and problem-solving. These competencies help learners become more confident and capable in engaging with others in various social

contexts. It also encourages students to value teamwork and to recognize the importance of working collectively toward shared goals, which in turn supports the development of responsible citizenship and a positive attitude toward lifelong learning. In this sense, collaboration does not only enhance teaching practices but also plays an important role in shaping learners who are more balanced and better prepared to succeed both academically and socially.

Informed Consent. The researcher obtained the voluntary participation of the respondents through a written informed consent form. Prior to their decision, the participants were fully informed about the purpose of the study and were given clear explanations to ensure that they understood the nature and significance of their involvement. This process allowed them to make an informed and voluntary choice, with the assurance that participation was entirely optional and that no form of pressure or coercion was applied.

In line with ethical considerations, the researcher also ensured that the respondents' psychological well-being was respected throughout the entire process. Written consent was secured to formally confirm their willingness to take part in the study. Furthermore, the researcher explained that the study focused on examining the

role of educational management in enhancing teacher professionalism, particularly through collaborative teaching approaches and their influence on instructional effectiveness in early childhood education within public elementary schools

of Talomo East District. Providing this context helped the participants better understand the relevance of their involvement and how their responses could contribute to improving teaching practices and educational outcomes in their respective schools.

Vulnerability of Research Participants. The participants of this study were public elementary school teachers from Talomo East District. Since all respondents were of legal age and not considered to be at particular risk of psychological harm, they were not classified as a vulnerable group. To ensure minimal disruption to their work, the researcher scheduled the administration of the survey at times that were most convenient for the teachers, allowing them to respond without interfering with their regular professional responsibilities. Throughout the process, strict confidentiality was observed, and all collected information was kept private and used solely for the purposes of the study.

In addition, the researcher clearly explained that the study focused on examining the role of educational management in strengthening teacher professionalism, particularly through collaborative teaching approaches and their influence on instructional effectiveness in early childhood education. By relating the study to their actual work context, the teachers were able to better appreciate its relevance. They also recognized that their participation could contribute to improving teaching practices, supporting professional growth, and enhancing the overall quality of instruction within their schools and the wider district.

Conflict of Interest. In public elementary schools within Talomo East District, challenges in collaborative teaching and in achieving in-

structional effectiveness in early childhood education were often observed when some teachers or stakeholders prioritized personal preferences, biases, or recognition over shared instructional goals. In some instances, differences in teaching styles, subject expertise, and levels of commitment contributed to misunderstandings and, at times, created a sense of competition rather than genuine collaboration among teachers.

Despite these difficulties, conflicts that were properly addressed often became opportunities for reflection, dialogue, and professional growth. Over time, they helped strengthen working relationships among teachers as they engaged in more open communication and shared decision-making. Respect for differing viewpoints also played an important role in turning disagreements into more constructive and meaningful discussions. These interactions frequently led to the development of innovative strategies and improvements in teaching practices. In this way, the effective management of conflicts became an important aspect of sustaining collaboration and enhancing instructional effectiveness, ultimately supporting teachers in working more cohesively to provide better learning experiences for their students.

Privacy and Confidentiality. This study strictly adhered to the provisions of the Data Privacy Act of 2012 to ensure the protection of all participating teachers from the public elementary schools of Talomo East

District. The researcher took careful steps to ensure that all information gathered could not be traced back to any individual respondent, who served as the primary source of data. No personal information was disclosed or shared without the clear consent of the participants, and access to the collected responses was limited exclusively to the researcher. These measures were put in place to safeguard any sensitive or private information provided during the data collection process.

To further ensure confidentiality, it was

clearly explained that only the researcher would have access to the survey data. The information collected was used solely for the purpose of analyzing the role of educational management in enhancing teacher professionalism, with particular attention to collaborative teaching approaches and instructional effectiveness in early childhood education. By ensuring the privacy and protection of respondents, the study helped establish trust and encouraged honest and thoughtful responses. This, in turn, contributed to the collection of more reliable data that could be used to support improvements in collaboration and teaching quality within Talomo East District.

Risk, Benefits, and Safety. In administering the survey questionnaires, the researcher ensured that the teacher-respondents from public elementary schools in Talomo East District were fully informed about the nature of their participation. The purpose of the study, its expected benefits, and the confidentiality of their responses were clearly explained as reflected in the online survey. Respondents were also

encouraged to raise questions whenever clarification was needed to make sure they fully understood the study before proceeding. Care was taken throughout the process to ensure that no harm would be caused to any participant. Likewise, the data collection instruments, including the questionnaire and interview guide, were carefully designed to avoid any language or statements that could be considered offensive or inappropriate.

The study was conducted purely for academic purposes, focusing on the role of educational management in enhancing collaborative teaching approaches and instructional effectiveness in early childhood education. It did not require the disclosure of any personal information from the teachers. To respect their time and professional responsibilities, participants were given sufficient flexibility to complete the online survey at their own convenience. They were

also given the option to skip any questions they were not comfortable answering and were informed that they could withdraw from the study at any point should they choose to do

so.

Justice. To ensure fairness in the selection of participants, the researcher treated all potential respondents equally and avoided any form of bias or favoritism throughout the process. Only teachers who were confirmed as permanent-regular staff from the purposively selected public elementary schools in Talomo East District were included in the study. This criterion helped maintain consistency in participant selection and ensured that the findings accurately reflected the experiences and perspectives of teachers actively engaged in implementing the K to 12 curriculum.

During the conduct of the study, the researcher also made it a priority to respect the participants' time and professional responsibilities by minimizing any disruption to their classroom routines. In recognition of their effort and willingness to share their insights, a small token of appreciation was provided as a simple gesture of gratitude. Through this approach, the study fostered a sense of cooperation and respect among participants while supporting its overall objective of examining ways to enhance collaborative teaching approaches and instructional effectiveness in early childhood education within Talomo East District.

Transparency. All communication related to this study was carried out with honesty and transparency to establish trust between the researcher and the teacher-respondents from public elementary schools in Talomo East District. Throughout the process, the researcher strictly observed the ethical procedures and methods outlined in the study to ensure that the welfare of the participants was fully protected. Relevant supporting documents used in the data analysis were also properly included to strengthen the credibility and reliability of the findings.

In addition, the researcher clearly explained the scope of the respondents' participation, emphasizing that their involvement was centered on providing professional insights regarding collaborative teaching approaches and instructional effectiveness in early childhood

education. Objectivity was carefully maintained in both the analysis of responses and the presentation of results, ensuring that interpretations remained fair, unbiased, and firmly based on the data gathered. By consistently adhering to these principles, the study aimed to produce findings that genuinely reflect the experiences of teachers and contribute meaningfully to the improvement of instructional practices in Talomo East District.

Qualification of Researcher. The researchers hold a Bachelor's degree in Early Childhood Education and have completed 36 units in the Master of Education in Early Childhood Education (MED-ECE) program. This academic background provides them with a strong theoretical foundation and specialized knowledge essential for conducting studies within the field of early childhood development and education.

In addition to their formal education, they have actively participated in various webinars and seminars directly related to the focus of this study. These professional development activities have further enhanced their competence, updated their understanding of current trends, and equipped them with the necessary skills to effectively carry out the research.

Adequacy of Facilities. The study was conducted in a supportive setting where the necessary learning materials and resources were readily available, allowing the research process to proceed smoothly within the designated timeframe. To help ensure accuracy, the researcher encoded the respondents' ratings on the same day they were gathered. This was done during periods when full attention could be given to the task, minimizing the possibility of encoding errors and maintaining the integrity of the data.

Careful attention was also given to the analysis and interpretation of the collected data. Each result was examined thoughtfully to ensure that it remained aligned with the objectives of the study. Through this process, the findings were able to provide a dependable basis for understanding the role of educational management in enhancing teacher professionalism, particularly in relation to collaborative teaching approaches and instructional effectiveness in early childhood education. Overall, the systematic handling of the data contributed to producing credible insights that may help inform the improvement of instructional practices in public elementary schools within Talomo East District. *Community Involvement.* Community involvement was observed throughout all stages of this study, from the initial planning phase up to the presentation of results, as it was considered essential in ensuring the relevance and inclusivity of the research. In the context of public ele-

mentary schools in Talomo East District, the researcher placed importance on sharing the findings with members of the school community, including teachers, parents, and administrators, so that the results could be meaningfully utilized in their respective roles.

In addition, community input was considered in shaping key aspects of the research, such as identifying the appropriate focus of the study, selecting methods suited to the local educational setting, and determining how the findings could be applied in practice. Through this process of engagement, the study on collaborative teaching approaches and instructional effectiveness in early childhood education extended beyond its academic purpose. It also provided practical insights that could help stakeholders improve teaching strategies, strengthen professional collaboration among teachers, and enhance the overall quality of instruction within the district.

3. Results and Discussion

Presented in this chapter are the results of the data gathered. Two sets of research were employed to determine the extent of collaborative teaching approaches and instructional effectiveness in teaching early childhood education.

The discussion of the results and interpretations were presented accordingly based on the statement of the problems. Presentation of the interpretation was arranged according to the sub-headings: The extent of collaborative teaching approaches in terms of lesson planning, instructional delivery, and assessment practices; the extent of instructional effectiveness in teaching early childhood education of public elementary schools in Talomo East District, Division of Davao City in terms of content delivery, classroom management, and learning outcomes and which of domains of collaborative teaching approaches significantly influence on the instructional effectiveness in teaching early childhood education of public elementary

schools in Talomo East District, Division of Davao City.

3.1. Level of Collaborative Teaching Approaches—Collaborative teaching approaches bring teachers together to plan lessons, teach, and assess learners as a team, making it easier to share ideas and respond to learners' different needs. By working collaboratively, teachers improve the quality of instruction, learn from one another's experiences, and create a more supportive and engaging classroom environment for learners.

Lesson Planning. Table 1 presents the extent of collaborative teaching approaches in terms of lesson planning, showing that all indicators fall within the "extensive" descriptive equiva-

lent, with an overall mean of 3.99 (SD=0.81). This suggests that teachers consistently practice collaborative planning strategies that align with curriculum standards and learner needs.

Table 1. Extent of Collaborative Teaching Approaches in Terms of Lesson Planning

No	Statements	Mean	SD	Descriptive Equivalent
1	The lesson objectives are clearly stated and aligned with the K to 12 curriculum competencies.	3.94	0.86	Extensive
2	Instructional methods are varied and adapted to meet different learning styles and abilities	3.89	0.85	Extensive
3	The lesson plan includes strategies that address diverse learning needs and styles.	4.03	0.79	Extensive
4	Time allocation for each part of the lesson is realistic and manageable for effective learning.	4.12	0.76	Extensive
5	The lesson plan includes strategies that address diverse learning needs and styles.	3.98	0.80	Extensive
Overall Mean		3.99	0.81	Extensive

The first indicator, which highlights that lesson objectives are clearly stated and aligned with the K to 12 curriculum (M=3.94, SD=0.86), reflects the importance of coherence in instructional design. Clear alignment ensures that learning goals are measurable and attainable, a principle strongly supported by curriculum alignment theory, which emphasizes that objectives, instruction, and assessment must work together to enhance learner learning (Biggs, 2014).

The second statement, which emphasizes the use of varied instructional methods adapted to different learning styles and abilities (M=3.89, SD=0.85), indicates that teachers are mindful of learner diversity. This aligns with the principles of differentiated instruction, where teaching strategies are intentionally adjusted to accommodate individual differences among learners. According to Tomlinson (2017), effective differentiation enhances learner engagement and achievement by addressing readiness levels, interests, and learning profiles. The relatively high mean score suggests that collaborative teaching enables teachers to share strategies and co-develop approaches that are more inclu-

sive and responsive.

The third and fifth indicators both focus on the inclusion of strategies that address diverse learning needs and styles (M=4.03, SD=0.79; M=3.98, SD=0.80). These results reinforce the idea that collaborative lesson planning promotes inclusivity and responsiveness in the classroom. Teachers working together are more likely to integrate multiple perspectives and techniques, which strengthens instructional quality. This finding is consistent with the collaborative learning theory proposed by Vygotsky (1978), which underscores the role of social interaction in enhancing cognitive development. Recent studies also affirm that collaboration among teachers leads to more innovative and adaptive instructional practices (Darling-Hammond et al., 2020).

The highest mean is observed in the fourth indicator, which pertains to realistic and manageable time allocation for each part of the lesson (M=4.12, SD=0.76). This suggests that teachers are highly effective in structuring their lessons to maximize learning within the given time frame. Time management is a critical component of instructional effectiveness, as it en-

asures that all planned activities are implemented efficiently. Research by Hattie (2023) highlights those well-structured lessons, including appropriate pacing and timing, significantly contribute to improved learner outcomes.

Overall, the findings demonstrate that collaborative teaching practices in lesson planning are well-established and consistently implemented. The “extensive” rating across all indicators indicates that teachers are not only aligning objectives and strategies but also ensuring inclusivity and effective time management. This supports the notion that collaboration enhances professional practice, as teachers collectively refine their planning processes. As emphasized by Fullan (2020), collaboration among educators is a key driver of school improvement, fostering shared responsibility and continuous development in teaching practices.

Instructional Delivery. Table 2 presents the extent of collaborative teaching approaches in terms of instructional delivery, revealing that the overall practice is extensive (M=3.66, SD=0.82). This suggests that teachers generally demonstrate strong implementation of collaborative strategies, although there is still room for refinement. Notably, the highest-rated indicator is the ability to present lessons clearly while using engaging strategies (M=4.23, SD=0.91), described as very extensive. Meanwhile, the remaining indicators fall within the extensive range, indicating consistent but slightly lower levels of practice. Taken together, these findings highlight that while collaborative teaching is well-practiced, continuous enhancement is still necessary to maximize instructional effectiveness.

Table 2. Extent of Collaborative Teaching Approaches in Terms of Instructional Delivery

No	Statements	Mean	SD	Descriptive Equivalent
1	Presents the lesson clearly and uses strategies that actively engage learners.	4.23	0.91	Very Extensive
2	Instructional methods are varied and adapted to meet different learning styles and abilities.	3.59	0.88	Extensive
3	Effectively uses questions and feedback to check learners' understanding.	3.49	0.76	Extensive
4	Delivered at an appropriate pace, ensuring that learners can follow and participate.	3.48	0.71	Extensive
5	Integrates relevant examples and real-life applications to make learning meaningful.	3.57	0.86	Extensive
Overall Mean		3.66	0.82	Extensive

First, the statement on presenting lessons clearly while using strategies that actively engage learners obtained the highest mean score, indicating that teachers are highly effective in making lessons understandable and interactive. This implies that teachers are able to combine clarity of instruction with engaging techniques, which is essential in collaborative teaching environments. Moreover, this finding aligns with the work of Hattie (2023), who empha-

sized that clarity and active engagement significantly influence student achievement. Similarly, Darling-Hammond et al. (2020) argued that well-structured and engaging instruction fosters deeper understanding and participation among learners. Therefore, the very extensive rating suggests that teachers are successfully applying learner-centered approaches that promote active involvement.

Second, the use of varied instructional meth-

ods adapted to different learning styles and abilities ($M=3.59$, $SD=0.88$) reflects an extensive level of practice. This indicates that teachers recognize learner diversity and attempt to adjust their strategies accordingly. In addition, this supports the principles of differentiated instruction, where teaching is tailored to meet individual needs. According to Tomlinson (2021), effective differentiation enhances learner engagement and learning outcomes by addressing varying readiness levels and interests. Furthermore, Subban (2022) highlighted those flexible instructional approaches are crucial in inclusive classrooms. Thus, the result demonstrates that teachers are making conscious efforts to accommodate diverse learners, although further enhancement could strengthen inclusivity.

Third, the effective use of questions and feedback to check learners' understanding ($M=3.49$, $SD=0.76$) also falls within the extensive category. This suggests that teachers regularly employ formative assessment strategies to monitor learner learning. In particular, questioning and feedback are essential components of collaborative teaching, as they promote interaction and reflection. Black and Wiliam (2018) emphasized that formative assessment significantly improves student performance when feedback is timely and meaningful. More recently, Wisniewski et al. (2020) found that high-quality feedback has a strong impact on learning progress. Consequently, while teachers demonstrate consistent use of these strategies, enhancing the depth and quality of feedback could further improve learning outcomes.

Fourth, delivering lessons at an appropriate pace ($M=3.48$, $SD=0.71$) indicates that teachers are generally mindful of students' ability to follow and participate. Maintaining an appropriate pace is critical in ensuring that learners neither feel rushed nor disengaged. Additionally, this finding supports the cognitive load theory, which suggests that pacing affects how well learners process information. According

to Sweller et al. (2019), managing instructional pace helps prevent cognitive overload and enhances comprehension. Similarly, Muijs and Reynolds (2022) noted that effective pacing contributes to better classroom management and student participation. Therefore, although the practice is already extensive, continuous adjustment based on learners' responses remains essential.

Finally, integrating relevant examples and real-life applications ($M=3.57$, $SD=0.86$) demonstrates that teachers are making learning meaningful and contextualized. This approach helps learners connect theoretical knowledge to practical situations, thereby deepening understanding. Furthermore, this aligns with constructivist theory, which emphasizes learning through experience and real-world connections. According to Bransford et al. (2020), meaningful learning occurs when students can relate new information to real-life contexts. In addition, Kolb (2021) highlighted that experiential learning enhances retention and application of knowledge. Hence, the extensive rating indicates that teachers are effectively contextualizing lessons, although increasing the frequency and relevance of examples could further enrich learning experiences.

The result aligns with the perspective of Agim, Igwe, and Olannye (2025) found that using blended learning approaches significantly enhances instructional delivery by enabling public elementary school teachers to combine traditional and digital methods, which helps maintain learner interest and supports more effective teaching practices.

Assessment Practices. Table 3 shows that collaborative teaching approaches in assessment practices were applied to an extensive degree, with an overall mean of 3.57 and a standard deviation of 0.75. This indicates that teachers regularly worked together when designing and implementing assessments. They consistently applied effective strategies to evaluate

learner learning and provide meaningful feedback. Overall, the results suggest that collaboration among teachers positively influenced how assessments were carried out in their classrooms.

Table 3. Extent of Collaborative Teaching Approaches in Terms of Assessment Practices

No	Statements	Mean	SD	Descriptive Equivalent
1	Are aligned with the learning objectives and competencies of the K to 12 Curriculum.	3.45	0.78	Extensive
2	A variety of assessment tools and methods are used to measure different skills and knowledge.	3.33	0.76	Extensive
3	Assessment tasks are fair, valid, and appropriate for the learners' level and context.	3.54	0.79	Extensive
4	Feedback is provided promptly to guide learners in improving their performance.	3.42	0.78	Extensive
5	Assessment results are used to inform instructional decisions and enhance teaching strategies.	4.12	0.63	Extensive
Overall Mean		3.57	0.75	Extensive

Firstly, the alignment of assessments with K to 12 learning objectives ($M=3.45$, $SD=0.78$) suggests that educators ensure coherence between instruction and evaluation, which is essential for meaningful learning; this finding is supported by Andrade (2020), who emphasized that aligned assessments improve student achievement and clarity of expectations. Moreover, the use of varied assessment tools ($M=3.33$, $SD=0.76$) reflects teachers' efforts to capture diverse learner abilities, and according to

Brookhart (2021), employing multiple assessment methods enhances the validity of measuring learner performance.

In addition, the fairness and appropriateness of assessment tasks ($M=3.54$, $SD=0.79$) indicate that teachers are mindful of learners' levels and contexts, thereby promoting equity in evaluation; this aligns with the work of Suskie (2022), who highlighted that valid and fair assessments are critical in accurately reflecting student learning. Similarly, the provision of prompt feedback ($M=3.42$, $SD=0.78$) demonstrates that teachers guide learners toward improvement, and

as noted by Wisniewski et al. (2020), timely feedback significantly strengthens learning outcomes. Furthermore, the highest-rated indicator using assessment results to inform instruction ($M=4.12$, $SD=0.63$) shows that teachers actively use data to refine teaching strategies, which Datnow and Park (2019) identified as a key component of effective data-driven instruction.

The findings concur with the view of Abdallah and Smith (2025), highlighted that effective assessment practices especially those that integrate diverse tools and continuous feedback that play a crucial role in driving instructional improvement and supporting learner outcomes.

3.2. Level of Instructional Effectiveness—in Teaching Early Childhood Education

Instructional effectiveness in teaching Early Childhood Education lies in how well teachers create developmentally appropriate, engaging, and nurturing learning experiences that support young learner's cognitive, social, emotional, and physical growth. It is reflected in the use of play-based strategies, clear routines, and responsive interactions that help learner feel safe,

motivated, and ready to learn.

Content Delivery. Table 4 shows that instructional effectiveness in early childhood education, particularly in terms of content delivery, is

practiced to an extensive level (overall $M=4.02$, $SD=0.76$), indicating that teachers consistently demonstrate strong pedagogical skills in delivering lessons.

Table 4. Extent of Instructional Effectiveness in Teaching Early Childhood Education in Terms of Content Delivery

No	Statements	Mean	SD	Descriptive Equivalent
1	Presents the lesson content in a clear, accurate, and organized manner.	4.18	0.75	Extensive
2	Uses a variety of instructional strategies and materials to cater to different learning styles and needs.	3.92	0.82	Extensive
3	Provides timely and constructive feedback that guides learners toward improvement.	4.00	0.70	Extensive
4	Actively engages learners in the learning process through interactive and participatory activities.	3.91	0.77	Extensive
5	Emphasizes the most important points to ensure mastery of essential concepts.	4.08	0.77	Extensive
Overall Mean		4.02	0.76	Extensive

Firstly, presenting lesson content in a clear, accurate, and organized manner ($M=4.18$, $SD=0.75$) reflects teachers' ability to structure learning effectively; this supports the findings of Hattie (2023), who emphasized that

clarity of instruction significantly enhances learner understanding and achievement. Moreover, the use of varied instructional strategies and materials ($M=3.92$, $SD=0.82$) highlights responsiveness to diverse learners, and as noted by Tomlinson (2021), differentiated instruction plays a crucial role in addressing individual learning needs and improving engagement.

In addition, providing timely and constructive feedback ($M=4.00$, $SD=0.70$) demonstrates that teachers actively support learners' progress, and according to Wisniewski et al. (2020), effective feedback has a strong positive impact on student performance. Similarly, actively engaging learners through interactive and participatory activities ($M=3.91$, $SD=0.77$) indicates that classrooms are learner-centered, aligning with the work of Darling-Hammond et al. (2020), who stressed that active engagement promotes

deeper learning and retention. Furthermore, emphasizing key concepts for mastery ($M=4.08$, $SD=0.77$) shows that teachers prioritize essential knowledge, which Bransford et al. (2020) identified as critical in helping learners build meaningful and lasting understanding.

The outcome aligned with the concept of Ekwevugbe (2025), which emphasized that effective instructional delivery was greatly enhanced through the integration of educational media and technology, as it improved the way content was presented and accessed in the classroom. By utilizing these tools, teachers were able to create more engaging, interactive, and meaningful learning experiences that catered to diverse learning styles and needs.

Classroom Management. Table 5 indicates that instructional effectiveness in early childhood education, particularly in terms of classroom management, is practiced to an extensive level (overall $M=3.86$, $SD=0.79$), reflecting teachers' consistent ability to maintain structured and supportive learning environments.

Table 5. Extent of Instructional Effectiveness in Teaching Early Childhood Education in Terms of Classroom Management

No	Statements	Mean	SD	Descriptive Equivalent
1	Establishes and consistently enforces clear classroom rules and expectations.	4.15	0.66	Extensive
2	Maintains an orderly and safe learning environment conducive to learner engagement.	3.68	0.87	Extensive
3	Effectively manages time to maximize instructional activities and minimize disruptions.	3.68	0.79	Extensive
4	Uses proactive strategies to prevent and address misbehavior constructively.	3.82	0.87	Extensive
5	Fosters a respectful and inclusive atmosphere that promotes positive learner relationships.	3.95	0.78	Extensive
Overall Mean		3.86	0.79	Extensive

Firstly, establishing and enforcing clear classroom rules ($M=4.15$, $SD=0.66$) shows that teachers provide a stable foundation for behavior, which Evertson and Weinstein (2020) identified as essential in promoting positive classroom climate and learner accountability. Moreover, maintaining an orderly and safe environment ($M=3.68$, $SD=0.87$)

demonstrates attention to learners' well-being, and according to Emmer and Sabornie (2021), structured environments significantly enhance student engagement and reduce disruptions.

In addition, effective time management ($M=3.68$, $SD=0.79$) suggests that teachers maximize instructional opportunities, aligning with the findings of Muijs and Reynolds (2022), who emphasized that efficient use of time leads to improved academic outcomes. Similarly, the use of proactive strategies to address misbehavior ($M=3.82$, $SD=0.87$) highlights a preventive approach, and as noted by Simonsen et al. (2019), proactive classroom management reduces behavioral issues and fosters a more focused learning atmosphere. Furthermore, fostering a respectful and inclusive classroom ($M=3.95$, $SD=0.78$) indicates that teachers value positive relationships, which Jennings and Greenberg

(2019) linked to improved social-emotional development and classroom harmony.

Overall, the findings suggest that teachers demonstrate strong classroom management practices, although some indicators reveal opportunities for further enhancement. Consequently, strengthening proactive strategies and environmental structuring may further improve classroom dynamics and learner engagement. Therefore, continuous professional development in classroom management can help teachers sustain and elevate their effectiveness in creating conducive learning environments.

The findings are consistent with the study of Pangestika, (2025), highlights that effective classroom management through clear rules, structured routines, and supportive teacher behaviors in which plays a critical role in enhancing teaching and learning effectiveness by creating organized, engaging, and learner-focused learning environments.

Learning Outcomes. Table 6 indicates that instructional effectiveness in early childhood education in terms of learning outcomes is practiced to an extensive level (overall $M=3.91$, $SD=0.79$), suggesting that learners are generally able to achieve meaningful and transferable learning.

Table 6. Extent of Instructional Effectiveness in Teaching Early Childhood Education in Terms of Learning Outcomes

No	Statements	Mean	SD	Descriptive Equivalent
1	Able to demonstrate understanding of the lesson by applying concepts in various context.	3.96	0.76	Extensive
2	Achieve the set competencies and objectives of the lesson.	3.88	0.82	Extensive
3	Show improved critical thinking, problem-solving, and communication skills.	3.88	0.83	Extensive
4	Can work collaboratively and independently to complete tasks successfully.	3.87	0.78	Extensive
5	The knowledge and skills gained by learners are relevant and transferable to real-life situations.	3.94	0.80	Extensive
Overall Mean		3.91	0.79	Extensive

Firstly, learners' ability to demonstrate understanding by applying concepts in various contexts ($M=3.96$, $SD=0.76$) reflects deep learning, which aligns with the work of Pellegrino and Hilton (2020), who emphasized that application of knowledge is a key indicator of mastery. Moreover, achieving the set competencies and objectives of the lesson ($M=3.88$, $SD=0.02$) shows that instructional goals are being met, and as noted by Guskey (2021), clearly defined learning outcomes improve both teaching effectiveness and learner achievement.

In addition, the development of critical thinking, problem-solving, and communication skills ($M=3.88$, $SD=0.83$) highlights the integration of 21st century skills, which according to Trilling and Fadel (2021), are essential for learners' long-term success. Similarly, learners' ability to work collaboratively and independently ($M=3.87$, $SD=0.78$) demonstrates balanced skill development, and Johnson and Johnson (2020) emphasized that cooperative learning enhances both academic and social outcomes. Furthermore, the relevance and transferability of knowledge to real-life situations ($M=3.94$, $SD=0.80$) indicate meaningful learning experiences, which Bransford et al. (2020) identified as crucial for long-term retention and application.

The outcome is consistent with the study of

Selpianti et al., (2025) found that implementing inquiry-based learning significantly enhances learners' learning outcomes in elementary science and social studies by encouraging deeper understanding and active engagement with the subject matter.

3.3. Significant Relationship Between Collaborative Teaching Approaches and Instructional Effectiveness in Teaching Early Childhood Education—Table 7 presents the relationship between collaborative teaching approaches and instructional effectiveness in teaching Early Childhood Education. The results reveal that lesson planning ($r=.688$), instructional delivery ($r=.565$), and assessment practices ($r=.445$) all showed significant relationships with instructional effectiveness, with an overall correlation of $r=.753$, which indicates a strong relationship. The significance value of 0.000 across all indicators means that the null hypothesis was rejected, confirming that collaborative teaching approaches significantly influence teachers' instructional effectiveness. This implies that when teachers work together in planning, implementing, and evaluating lessons, the quality of teaching and learning outcomes improves. Recent research supports this finding, showing that collaboration among teachers enhances instructional clarity, professional growth, and classroom practices (Andaya & Quinito, 2025; Jalop

& Paglinawan, 2025).

Table 7. Relationship Between Collaborative Teaching Approaches on Instructional Effectiveness in Teaching Early Childhood Education

Collaborative Teaching Approaches	r value	Interpretation	Sig. Value	Decision	Remarks
Lesson Planning	.688	Strong Correlation	0.000	Reject Ho	Significant
Instructional Delivery	.565	Medium Correlation	0.000	Reject Ho	Significant
Assessment Practices	.445	Medium Correlation	0.000	Reject Ho	Significant
Overall	.753	Strong Correlation	0.000	Reject Ho	Significant

Legend: S – Significant, NS – Not Significant

Coefficient Interval: 0.00 - 0.199 = Very Weak; 0.20 – 0.399 = Weak; 0.40 – 0.599 = Medium; 0.60 – 0.799 = Strong; 0.80 – 1.000 = Very Strong

The first component, lesson planning, obtained a strong correlation with instructional effectiveness. This suggests that when teachers collaboratively design lesson plans, they are able to integrate diverse teaching strategies, share instructional resources, and align learning objectives with classroom activities more effectively. Collaborative lesson planning allows teachers to anticipate learners' needs and create more engaging learning experiences for young learners. This finding is supported by the study of Lagare and Paglinawan (2024), which emphasized that collaborative teaching practices encourage teachers to exchange pedagogical ideas and improve instructional strategies that promote deeper learning among learners. The result can be explained through Social Constructivist Theory proposed by Vygotsky (1978), which highlights that knowledge is constructed through social interaction and shared experiences. When teachers collaboratively plan lessons, they engage in professional dialogue that enhances their collective understanding of effective teaching strategies.

In terms of instructional delivery, the results show a medium but significant correlation with

instructional effectiveness. This indicates that collaboration during the actual teaching process, such as co-teaching, team teaching, or peer observation, contributes to improved classroom instruction. When teachers collaborate in delivering lessons, they can provide multiple perspectives, support differentiated instruction, and address diverse learning needs of children more effectively. A recent study by Mariën, et. al., (2023) found that team teaching improves classroom interaction and allows teachers to combine their expertise, which leads to more effective instructional practices. This outcome is supported by Bandura's Social Learning Theory (1986), which emphasizes that individuals learn by observing and interacting with others. In collaborative teaching environments, teachers learn from each other's instructional styles, feedback, and classroom management approaches, thereby enhancing their teaching competence.

The findings also reveal that assessment practices have a significant relationship with instructional effectiveness. Although the correlation is moderate, it still indicates that collaboration in designing and implementing assessments contributes to improved teaching outcomes. When teachers collaboratively develop assessment tools, they can ensure that evaluation methods align with learning objectives and accurately measure learner performance. According to Tan-Abrenica, et. al., (2025), collaborative environments among teachers support the

development of instructional competence, particularly in designing meaningful assessments that guide teaching improvements. This result aligns with Assessment for Learning Theory (Black & Wiliam, 1998), which emphasizes that assessment should be used as a collaborative and reflective process that informs instruction and supports continuous improvement in teaching practices.

Overall, the strong correlation ($r=.753$) between collaborative teaching approaches and instructional effectiveness highlights the importance of teamwork among teachers in improving educational outcomes. The findings suggest that collaborative practices such as co-planning, shared instructional delivery, and joint assessment that help teachers refine their pedagogical skills and create more effective learning environments for young learners. Studies have consistently demonstrated that teacher collaboration enhances instructional clarity, teacher self-efficacy, and organizational commitment,

which ultimately lead to better instructional performance (Gamboa, 2023). These results are further supported by Social Capital Theory (Bourdieu, 1986; Putnam, 2000), which explains that strong professional relationships, trust, and shared knowledge among teachers contribute to improved professional practices and collective success in schools. Therefore, strengthening collaborative teaching approaches can serve as a key strategy for enhancing instructional effectiveness in teaching Early Childhood Education.

3.4. Regression Analysis of Collaborative Teaching Approaches on Instructional Effectiveness in Teaching Early Childhood Education— Table 8 shows the result of the regression analysis examining the influence of collaborative teaching approaches on instructional effectiveness in teaching early childhood education of public elementary schools in the Talomo East District, Division of Davao City.

Table 8. Regression Analysis of Collaborative Teaching Approaches on Instructional Effectiveness in Teaching Early Childhood Education

Predictor	B	Std. Error	Beta	t	Sig.	Decision on Ho	Interpretation
(Constant)	.814	.248		3.386	.001		
Lesson Planning	.411	.050	.535	8.259	.000	Reject Ho	Significant
Instructional Delivery	.205	.057	.251	3.578	.001	Reject Ho	Significant
Assessment Practices	.194	.063	.203	3.084	.003	Reject Ho	Significant

$R = 0.775$, $R^2 = 0.600$, $F\text{-Value} = 58.036$, $p\text{-value} = .000$

Legend: S – Significant, NS – Not Significant

The results show that the three components of collaborative teaching lesson planning, instructional delivery, and assessment practices significantly influence instructional effectiveness in teaching early childhood education. This is supported by the significance values (p -values) which are all below 0.05, indicating that

the null hypothesis is rejected and that collaborative teaching approaches contribute meaningfully to effective instruction. The regression coefficients reveal that collaborative teaching practices positively predict instructional effectiveness, meaning that when teachers work together in planning, delivering, and assessing instruction, the quality of teaching in early childhood education improves. Collaborative teaching is grounded in social constructivist theory, which emphasizes that knowledge is

constructed through interaction and shared experiences among teachers and learners. Studies highlight that collaboration among teachers strengthens pedagogical practices and enhances instructional outcomes (Liu, et. al., 2023).

The first variable, lesson planning, obtained the highest standardized coefficient ($Beta=.535$), with a t -value of 8.259 and a significance value of .000, indicating that it is the strongest predictor of instructional effectiveness. This suggests that when teachers collaborate in designing lesson plans, they are able to share ideas, align instructional goals, and integrate diverse teaching strategies that enhance learner learning. Collaborative lesson planning allows teachers to reflect on curriculum objectives and develop meaningful learning experiences for young learners. This finding aligns with the Understanding by Design (UbD) theory of curriculum planning proposed by Wiggins and McTighe (2005), which emphasizes that effective teaching begins with clear learning goals and carefully designed instructional activities. Recent research also confirms that collaborative lesson planning improves teachers' pedagogical competence and strengthens professional learning communities (Canalita & Jugar, 2025).

The second component, instructional delivery, also shows a significant effect on instructional effectiveness, with $Beta=.251$, $t=3.578$, and $p=.001$. This indicates that the way teachers collaboratively implement lessons in the classroom plays an important role in improving teaching effectiveness. When teachers share teaching responsibilities, observe each other's practices, and provide feedback, they can refine instructional strategies and ensure that learning activities are engaging and developmentally appropriate for young learner. This practice is supported by Vygotsky's Social Learning Theory, which highlights the importance of interaction and collaboration in the learning process. In collaborative teaching environments, teachers model cooperative learning and create sup-

portive classroom settings that encourage active participation. Empirical evidence shows that collaborative teaching practices strengthen instructional competence and promote professional growth among educators (Tan-Abrenica, Abellana, & Orongan, 2025).

The third factor, assessment practices, also demonstrates a significant relationship with instructional effectiveness, with $Beta=.203$, $t=3.084$, and $p=.003$. Although it has the lowest beta value among the predictors, it still significantly contributes to improving instruction. Collaborative assessment practices enable teachers to design appropriate evaluation tools, analyze learner performance collectively, and make informed decisions about instructional adjustments. Through shared assessment strategies, teachers can better monitor learners' progress and provide timely feedback that supports learner's cognitive and socio-emotional development. This practice is aligned with formative assessment theory, which emphasizes continuous evaluation and feedback as essential components of effective teaching. Studies in early childhood education indicate that collaborative evaluation among teachers enhances classroom management and improves the learning environment for young learner (Ubaidillah & Maryati, 2025).

Overall, the regression analysis clearly demonstrates that collaborative teaching approaches significantly influence instructional effectiveness in early childhood education, with lesson planning emerging as the most influential factor. These results highlight the importance of teamwork among teachers in designing, implementing, and evaluating instructional activities. Collaborative teaching not only enhances professional development but also strengthens the overall quality of classroom instruction. When teachers engage in shared planning, cooperative teaching, and joint assessment, they create a supportive professional culture that promotes innovation and continuous improvement. Research

further confirms that collaborative learning environments foster teacher leadership, improve instructional practices, and ultimately lead to

better educational outcomes for learners (Andaya & Quinito, 2025).

4. Conclusions and Recommendations

This section gives the findings of the study based on the data outcome. The conclusions drawn from the findings of the study are also provided in this section. In order to make a significant contribution, the researcher has made recommendations in this chapter.

4.1. Findings—This study employed a non-experimental research design using a correlational approach to examine the extent of collaborative teaching approaches and instructional effectiveness in teaching early childhood education among public elementary schools in Talomo East District, Division of Davao City. Specifically, it described collaborative teaching in terms of lesson planning, instructional delivery, and assessment practices. It also assessed instructional effectiveness based on content delivery, classroom management, and learning outcomes. In addition, the study determined whether a significant relationship exists between collaborative teaching approaches and instructional effectiveness in the selected schools. The respondents of the study were 120 public elementary school teachers from Talomo East District. A patterned and modified teacher-made survey questionnaire was utilized as the main data-gathering instrument. This was anchored on the Social Constructivist Theory (Vygotsky, 1978), as cited by Anvarovna (2022), and the Collective Teacher Efficacy Theory (Hattie, 2016), as cited by Andaya et al. (2015). These theoretical bases helped guide the development of the instrument and the interpretation of the findings.

Based on the analysis of the collected data, the results revealed that the extent of collaborative teaching approaches in terms of lesson

planning, instructional delivery, and assessment practices was generally high or extensive. In the same manner, instructional effectiveness in early childhood education, as reflected in content delivery, classroom management, and learning outcomes, was also found to be extensive among the respondents.

Further statistical analysis showed a strong positive relationship between collaborative teaching approaches and instructional effectiveness, with an overall correlation coefficient of $r=0.753$. The significance value of $p=0.000$ indicates that this relationship is statistically significant and not due to chance, leading to the rejection of the null hypothesis. This suggests that higher levels of collaboration among teachers are associated with better instructional effectiveness in early childhood education.

Moreover, the regression analysis supported these findings, yielding an F-value of 58.036 with a p-value of 0.000, indicating that the overall model is statistically significant. The R value of 0.775 reflects a strong relationship between collaborative teaching indicators and instructional effectiveness, while the coefficient of determination ($R^2=0.600$) shows that 60 percent of the variance in instructional effectiveness can be explained by collaborative lesson planning, instructional delivery, and assessment practices. This highlights the substantial role of collaborative teaching in predicting instructional outcomes.

Overall, the findings indicate that collaborative teaching approaches particularly in lesson planning, instructional delivery, and assessment practices significantly influence instructional effectiveness in teaching early childhood educa-

tion in public elementary schools of Talomo East District, Division of Davao City.

4.2. Conclusions—Based on the findings of this study, the following conclusions were offered:

The extensive presence of collaborative teaching approaches in public elementary schools reflects a working environment where teachers consistently engage with one another through shared planning, exchange of ideas, and reflective practice, all of which contribute to their ongoing professional growth. This form of collaboration fosters meaningful professional relationships and creates opportunities for sharing insights and resources that often lead to more thoughtful, creative, and responsive instructional strategies. Moreover, such sustained interaction appears to nurture a more supportive and dynamic school climate, where teachers are better able to coordinate their approaches and address the varied needs of learners. Taken together, these patterns suggest that collaboration plays an important role in strengthening teaching effectiveness and may also contribute to improved learner learning outcomes, as classroom practices become more aligned, responsive, and well-supported.

The finding that instructional effectiveness in early childhood education among public elementary school heads was highly evident suggests that school leaders take an active role in ensuring that instruction is carefully planned, responsive to learners' needs, and effectively implemented in the classroom. This points to a sustained effort in guiding teachers toward the continuous refinement of their instructional practices, encouraging more intentional and creative approaches to teaching, and supporting their ongoing professional development. With this consistent leadership support, teachers are better positioned to strengthen the quality of their classroom instruction. Overall, the result reflects a school environment where leadership meaningfully influences teaching practice and

contributes to the delivery of more purposeful and engaging learning experiences for young children.

The strong positive relationship between collaborative teaching approaches and instructional effectiveness suggests that when teachers actively work together, the quality of teaching and learning in early childhood education is notably enhanced. This indicates that collaboration provides a meaningful space for sharing expertise, reflecting on classroom practices, and developing more engaging and effective instructional strategies. Through these interactions, teachers are better able to refine their approaches and respond more thoughtfully to learner needs. At the same time, a supportive school environment that encourages collaboration appears to strengthen professional relationships and promote more consistent instructional practices. Overall, these findings point to the importance of fostering collaboration as a way to enhance teaching effectiveness and ultimately support better learning experiences for young learner.

The results showing that lesson planning, instructional delivery, and assessment practices are strongly shaped by collaborative teaching approaches suggest that working together plays a key role in improving the overall quality of early childhood education. This indicates that collaboration allows teachers to combine ideas and expertise when designing lessons, resulting in more structured and engaging learning activities. It also supports more varied and responsive instructional strategies during classroom delivery, helping teachers better address learners' needs. In terms of assessment, shared practices contribute to more consistent and fair evaluation of student progress, strengthening the reliability of learning outcomes. Overall, these findings reflect how collaboration within the school environment can enhance instructional effectiveness and create a more supportive system that benefits both teachers and young learners.

4.3. *Recommendations*—The following interventions were offered based on the conclusions of the study:

4.3.0. *Collaborative Teaching Approaches*—It is recommended that teachers further strengthen the diversification and intentional adaptation of their instructional methods to effectively address the varying learning styles and abilities of learners. Ongoing professional development, structured collaborative planning opportunities, and sustained access to innovative pedagogical approaches may better equip teachers in designing inclusive and responsive instructional practices. Furthermore, reinforcing institutional support systems within schools may help ensure the consistent implementation of differentiated instruction, thereby promoting higher levels of learner engagement and improved learning outcomes.

It is recommended that instructional delivery be consistently paced in a manner that aligns with learners' cognitive readiness and processing capacity, ensuring that learners are able to meaningfully follow, engage, and participate in classroom activities. Teachers may benefit from ongoing professional development focused on pacing strategies, formative feedback techniques, and real-time instructional adjustments to better accommodate diverse learner needs. In addition, the use of structured lesson planning and continuous monitoring of learner comprehension is

encouraged to support a more responsive and effective teaching–learning process.

It is recommended that teachers continue to employ a diverse range of assessment tools and methods to more comprehensively capture learners' varying skills and areas of knowledge. Strengthening the use of both traditional and alternative assessment strategies may enhance the accuracy and depth of evaluating learner performance. Additionally, providing teachers with sustained training on assessment design and implementation is encouraged to ensure that as-

essment practices remain valid, reliable, and aligned with learning objectives. Such an approach may also contribute to more meaningful feedback and improved instructional decision-making.

Instructional Effectiveness in Teaching Early Childhood Education It is recommended that instructional practices continue to prioritize active learner engagement through the sustained use of interactive and participatory learning activities. Teachers may further enhance this approach by integrating structured collaborative tasks, inquiry-based strategies, and learner-centered techniques that promote sustained involvement in the learning process. Additionally, ongoing professional development focused on active learning methodologies may support teachers in designing more dynamic and inclusive classroom experiences. Such efforts are likely to strengthen learner participation and contribute to more meaningful and effective learning outcomes.

It is recommended that schools and teachers continue to strengthen the maintenance of an orderly and safe learning environment, as this is essential in fostering sustained learner engagement and positive classroom behavior. In addition, effective time management practices should be consistently emphasized to maximize instructional opportunities and minimize unnecessary disruptions during teaching and learning activities. Providing targeted professional development on classroom management strategies and instructional time optimization may further support teachers in sustaining efficient, structured, and conducive learning environments.

It is recommended that instructional practices continue to foster both collaborative and independent learning opportunities to support learners in successfully completing assigned tasks. Teachers may further strengthen this by intentionally designing activities that balance group-based engagement with individual accountability, thereby developing learners' ca-

capacity to work effectively in both contexts. In addition, structured guidance and scaffolding may be provided to ensure that learners gradually build autonomy while still benefiting from peer interaction, ultimately enhancing task completion and overall learning outcomes.

Future researchers are encouraged to further examine collaborative teaching approaches across diverse early childhood education contexts to gain a broader understanding of how varying school environments, resources, and institutional practices may influence instructional

effectiveness. Further studies may also explore the long-term effects of sustained teacher collaboration on both teaching quality and learner development, particularly in relation to engagement, achievement, and classroom participation. In addition, the use of mixed-methods designs is recommended to provide a more comprehensive and nuanced analysis of collaborative practices, allowing for a deeper understanding of both the measurable outcomes and the lived experiences of teachers and learners within collaborative educational settings.

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