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TEACHER COMPETENCE AND ITS INFLUENCE ON COLLABORATIVE LEARNING STRATEGIES IN THE DIVISION OF DAVAO ORIENTAL

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ABSTRACT

This study investigated the influence of teacher competence on collaborative learning strategies among selected teachers in the Division of Davao Oriental. Employing a descriptive-correlational research design, data were collected from 143 teachers using validated research instruments. Statistical tools such as weighted mean, Pearson product-moment correlation, and multiple regression analysis were utilized to analyze the data. Findings revealed that both teacher competence and collaborative learning strategies were rated as extensive. Furthermore, a significant positive relationship was established between teacher competence and collaborative learning strategies. Regression analysis showed that all four domains of teacher competence, pedagogy, facilitation, technology, and course administration, significantly influenced collaborative learning strategies, with facilitation showing the strongest impact. The model accounted for 52.8% of the variance in collaborative learning strategies, as indicated by an R^2 value of 0.528. The study concludes that teacher competence plays a critical role in the effective implementation of collaborative learning strategies, highlighting the importance of enhancing teacher skills across these domains. Recommendations were made for educational stakeholders, including the Department of Education, school principals, teachers, and future researchers, to support professional development and further exploration of this relationship.

KEYWORDS: *Teacher Competence; Collaborative Learning Strategies; Pedagogy; Facilitation; Technology; Course Administration; Regression Analysis; Davao Oriental.*

INTRODUCTION

In today's evolving educational landscape, teacher competence and collaborative learning have become central to improving instructional effectiveness and student engagement. Globally, collaborative learning is recognized for fostering critical thinking and deeper understanding. Gutierez (2019) emphasized its value in inquiry-based teaching, while the *International Journal of Multidisciplinary: Applied Business and Education Research* (2022) affirms its growing prominence in academic discourse.

In the Philippines, collaborative learning is integral to recent educational reforms. The Department of Education's Learning Action Cell (LAC) promotes a culture of continuous learning and shared expertise (DepEd, 2024). Additionally, collaborative strategies enhance the exchange of best practices and global perspectives (Diano, 2023).

However, implementation remains challenging in local contexts like Davao Oriental. Teachers often struggle with limited resources, insufficient training, and difficulties in integrating technology—factors essential to effective collaborative learning (Carpina, 2023; Gutierez, 2019). These challenges hinder student engagement and compromise learning outcomes (International Journal of Research Publications and Reviews, 2023).

This study investigates the relationship between teacher competence and the implementation of collaborative learning in Davao Oriental, aiming to identify specific barriers and enablers. Findings will inform context-specific interventions and professional development initiatives to strengthen teacher capability and support collaborative practices.

By addressing local disparities, this research contributes to broader efforts toward educational equity and quality. It underscores the need for sustained support and targeted strategies to ensure all educators—regardless of location—can effectively implement collaborative learning approaches.

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REVIEW OF SIGNIFICANT LITERATURE

This study investigates the relationship between teacher competence and collaborative learning strategies. Teacher competence, the independent variable, includes four key indicators: pedagogy, facilitation, technology integration, and course administration (Simsek et al., 2021). The dependent variable, collaborative learning strategies, consists of nine elements such as wheel of ideas, conversation groups, critical debates, role-playing, exam teams, puzzle, case studies, structured problem resolution, and collaborative writing (Rodríguez et al., 2019).

Teacher competence is a critical factor in ensuring educational quality. It encompasses a teacher's ability to effectively plan, deliver, and evaluate instruction using a blend of pedagogical skills, subject knowledge, digital proficiency, and classroom management. Globally, the demand for competent educators continues to grow. In the United States, teacher assessment frameworks focus on accountability and professional growth (Dwyer, 2020), while European countries such as the Netherlands and Germany have adopted competency-based training and assessment standards (SBL, 2018). In Southeast Asia, countries like Indonesia and Malaysia have emphasized teacher competence as part of educational reform, highlighting the importance of pedagogical, professional, and technological skills in fostering student success (Moeheriono, 2019; Pingel, 2020).

In the Philippines, teacher competence is central to the goals of the K to 12 curriculum. The Department of Education has prioritized teacher training and professional development, particularly in learner-centered and technology-enhanced instruction. However, challenges remain, especially in rural areas where access to resources and continuous training is limited (Capuno et al., 2020). Beyond technical and pedagogical skills, personal and social competence also contribute to teaching effectiveness. These include the ability to manage emotions, uphold ethical standards, communicate clearly, and foster positive relationships with students, parents, and colleagues (Spencer & Spencer, 2021). Such competencies not only shape the classroom environment but also influence student outcomes and school performance (McClelland, 1993).

Pedagogy, one of the core dimensions of competence, involves the application of instructional methods and reflective practices that support student engagement and learning. In the Philippine context, policies such as the Enhanced Basic Education Act of 2013 (RA 10533) emphasize constructivist, inquiry-based, and collaborative teaching approaches (DepEd Order No. 21, s. 2019). The pandemic highlighted the need for adaptive pedagogy, particularly in digital settings where instructional delivery required flexibility and innovation (Febriyani et al., 2022).

Facilitation, another indicator, refers to guiding learners through supportive and interactive instruction. Unlike traditional teaching, facilitation encourages learners to actively participate in constructing knowledge. This role becomes more vital in online and blended learning environments, where students may face challenges such as isolation or lack of motivation. Effective facilitation ensures inclusivity, engagement, and a sense of connection, which are essential for student retention and academic success (Stone, 2020; Hewson, 2018).

The use of technology in education has transformed teaching and learning worldwide. Its successful integration depends on teacher competence in selecting and applying digital tools that enhance interactivity and accessibility. While access to devices and internet remains uneven, particularly in developing regions, studies affirm that effective use of educational technology improves student engagement and achievement (Warschauer, 2021; U.S. Department of Education, 2022). Strategic implementation and teacher training are key to avoiding the digital divide and ensuring equitable learning opportunities (European Commission, 2019).

Course administration is equally crucial in managing instructional delivery, especially in virtual settings. It involves the coordination of course content, scheduling, feedback mechanisms, and communication. Well-managed courses contribute to clarity, reduce student anxiety, and promote a structured learning environment (Alamri et al., 2020; Song et al., 2021). Effective administration also requires the thoughtful use of learning management systems and responsiveness to learners' needs (Martin & Bolliger, 2018).

Collaborative learning, the dependent variable of this study, is a student-centered approach where learners work together to solve problems, discuss ideas, and deepen their understanding. This strategy aligns with 21st-century education goals, particularly in fields like engineering and the sciences, where creativity, teamwork, and critical thinking are essential (Goodhew, 2020; Macpherson, 2020). Research highlights that active learners benefit significantly from collaborative environments, which allow experimentation and peer support (Felder, 2022). Theories from Bandura and Vygotsky support this method, emphasizing social interaction as a key factor in cognitive development and motivation (Bandura, 2019; Vygotsky, 2019).

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The Wheel of Ideas is one such strategy, designed to stimulate creativity and higher-order thinking through structured peer exchanges. It allows learners to contribute, listen, and build upon each other's perspectives, reinforcing collaborative intellectual engagement (Prince, 2019; Johnson & Johnson, 2020). Similarly, conversation groups promote reflective dialogue and deepen understanding through peer feedback and social interaction. These groups support Vygotsky's idea of the zone of proximal development, where learners expand their thinking with peer assistance.

Critical debates provide opportunities for students to construct and defend arguments, enhancing critical thinking, communication, and respect for differing views. This approach encourages deeper engagement and supports the transition to student-centered learning environments. Likewise, role-playing facilitates experiential learning by allowing students to simulate real-world scenarios, helping them develop decision-making, empathy, and problem-solving skills. These activities bridge the gap between theoretical knowledge and practical application, making learning more dynamic and relevant.

Each of these collaborative strategies contributes to student engagement, cognitive development, and interpersonal skill-building. However, their success largely depends on the competence of the teacher. Educators must possess the skills to facilitate, guide, and adapt these strategies effectively within varied learning environments. This study, therefore, aims to examine how teacher competence influences the implementation of collaborative learning, particularly in the local context of Davao Oriental, where challenges in training, resources, and support systems continue to affect instructional quality.

STATEMENT OF THE PROBLEM

This study determined the relationship between the teacher competence and collaborative learning strategies. More specifically, it sought to answer the following questions:

1. What is the extent of teacher competence in terms of:
    1.1. Pedagogy,
    1.2. Facilitation,
    1.3. Technology, and
    1.4. Course Administration
2. What is the extent of collaborative learning strategies in terms of:
    2.1. Wheel of ideas,
    2.2. Conversation Groups,
    2.3. Critical Debates,
    2.4. Role Playing,
    2.5. Exams Teams,
    2.6. Puzzle,
    2.7. Case Studies,
    2.8. Structured problem resolution, and
    2.9. Collaborative Writing
3. Is there a significant relationship between teacher competence and collaborative learning strategies?
4. Which of the domains of teacher competence significantly influence collaborative learning strategies?

METHODOLOGY

This chapter introduces the methodological aspect of the study. This covers the research design, research respondents, research instruments, data gathering procedure, and data analysis employed in this investigation.

Research Design

This study employed a quantitative research design using a descriptive correlational approach. Quantitative research involves collecting numerical data and analyzing it through statistical methods to explain or interpret specific phenomena (Creswell & Creswell, 2019). The descriptive aspect aims to observe and describe the independent variable, teacher competence, and the dependent variable, collaborative learning strategies, without manipulating any factors in the environment. Descriptive research is useful for providing a clear picture of the variables' natural characteristics and behaviors within an educational setting (Apuke, 2019). The use of descriptive correlational methods helps to analyze how these variables exist and interact in real-world contexts.

The correlational aspect of the research investigates the relationships between teacher competence and collaborative learning strategies to determine whether changes in one variable are associated with changes in the other (Kabir, 2019). Correlational studies, as described by Davis (2021), do not imply causality but rather focus on identifying significant relationships and patterns. In this study,

teacher competence serves as the independent variable, while collaborative learning strategies are the dependent variable. This design allows the researcher to explore the natural correlations between these variables, offering insights into whether effective teacher competence is associated with improved collaborative learning outcomes among students.

This approach is particularly suitable for educational research, as it enables the examination of variables in their natural state without experimental manipulation (Korrapati, 2021). By utilizing a descriptive correlational design, the study provides a data-driven understanding of how teacher competence impacts collaborative learning strategies, potentially influencing teacher development programs and educational practices. This approach offers valuable information for policymakers, educators, and researchers, helping them understand the extent and significance of these relationships in educational settings.

Research Respondents

The respondents of this study will be 218 teachers from the Division of Panabo City, chosen to represent the population of educators in this area. These teachers will be purposively selected from both elementary and secondary levels, ensuring a diverse range of teaching experiences and backgrounds, which is crucial for gathering comprehensive data on teacher social-emotional competence and its relationship to student academic resilience. The teachers' participation will offer valuable insights into how their social-emotional skills influence their students' ability to persevere, adapt, and cope with academic challenges.

Selecting teachers as respondents is integral because educators play a pivotal role in shaping students' academic experiences. Teachers' self-awareness, relationship management, and responsible decision-making can significantly impact the classroom environment and, consequently, student outcomes (Brackett, 2019). Since this study seeks to explore how teachers' social-emotional competence influences student resilience, focusing on teachers allows the research to pinpoint specific competencies that enhance student success in dealing with academic adversity (Jennings & Greenberg, 2019). Given the demanding nature of the teaching profession, assessing teachers' emotional and interpersonal skills can also highlight areas for professional development and emotional support.

Moreover, the use of a sample size of 218, derived from statistical sampling methods, ensures that the data collected will be both valid and reliable. This sample size allows for a robust analysis of the correlational relationship between the independent variable and the dependent variable without overburdening the research process or introducing sampling bias (Creswell & Creswell, 2018). Teachers' responses to surveys or assessments regarding their social-emotional skills and perceptions of student resilience will provide the data necessary for the study, contributing to a more profound understanding of how teacher competence affects student outcomes in the Panabo City Division.

Research Instruments

The primary instrument for data collection was a structured questionnaire designed to measure both, teacher's innovative teaching practices and teacher effectiveness. The questionnaire consisted of closed-ended questions with Likert- scale items to quantify perceptions and experiences.

For data collection, this study utilized an adapted survey questionnaire. The questionnaire that was employed in this undertaking was divided into two sets. The first set focused on the extent of school structure mechanisms. The second set focused on effective teacher leadership.

Teacher Competence. The Teacher Competence questionnaire was adapted from Simsek et al. (2021). The instrument consisted of 15 items. It had four indicators namely; Pedagogy (1-5), Facilitation (1-3), Technology (1-3),Course Administration (1-4).

For the Teacher Competence questionnaire, pilot testing was conducted with a group of respondents who were not part of the main study. The reliability analysis yielded a Cronbach's alpha of 0.81, indicating that the items have relatively high internal consistency. This suggests that the questionnaire is a reliable tool for measuring the various dimensions of teacher competence, including pedagogy, facilitation, technology, and course administration. The strong internal consistency implies that the items within each indicator are coherent and effectively capture the constructs they are meant to measure. This enhances the credibility of the data that will be collected in the main study. Below was the grading scale of the extent of teacher competence.

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20 - 5.00	Very Extensive	The teacher competence is always evident.
3.40 - 4.19	Extensive	The teacher competence is oftentimes evident.
2.60 - 3.39	Moderately Extensive	The teacher competence is occasionally evident.
1.80 - 2.59	Less Extensive	The teacher competence is seldom evident.
1.00 – 1.79	Not Extensive	The teacher competence is never evident.

Collaborative Learning Strategies. The Collaborative Learning Strategies questionnaire was adapted from M. C. Rodríguez et al. (2019). The instrument consisted of 78 items. It had nine indicators namely; Wheel of Ideas (1-8), Conversation Groups (1-8), Critical Debates (1-11), Role Playing (1-12), Exams Teams (1-7), Puzzle (1-6), Case Studies (1-11), Structured problem resolution (1-6), Collaborative Writing (1-9).

The Collaborative Learning Strategies questionnaire was also subjected to pilot testing, yielding a Cronbach's alpha of 0.90, signifying excellent internal consistency across the 78 items. This result suggests that the instrument is reliable for assessing the nine indicators of collaborative learning, such as wheel of ideas, conversation groups, critical debates, and role-playing, among others. The high internal consistency implies that the respondents' perceptions and experiences regarding collaborative learning strategies are accurately measured, making the questionnaire a dependable tool for data collection in the full study. Below was the grading scale of the extent of collaborative learning strategies.

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20 - 5.00	Very Extensive	Collaborative learning strategies is always evident.
3.40 - 4.19	Extensive	Collaborative learning strategies is oftentimes evident.
2.60 - 3.39	Moderately Extensive	Collaborative learning strategies is occasionally evident.
1.80 - 2.59	Less Extensive	Collaborative learning strategies is seldom evident.
1.00 – 1.79	Not Extensive	Collaborative learning strategies is never evident.

The instruments in this study were contextualized to achieve the purpose of this study. The researcher integrated all the comments and suggestions of the adviser, panel members and expert validators for the refinement of the tools and to achieve construct validity.

RESULTS AND DISCUSSIONS

This chapter presents the results of the study. These are the findings of the problems in the previous chapter. These are presented both in textual and tabular form.

The study examined the extent of teacher competence in four key areas—pedagogy, facilitation, technology, and course administration—and the use of collaborative learning strategies, particularly Wheel of Ideas and Conversation Groups. Across all domains, results consistently showed an extensive level of teacher competence, with an overall mean of 4.07, indicating that teachers often demonstrate effective practices in both traditional and digital classrooms.

In terms of pedagogy, teachers showed strong competence in setting clear objectives, preparing lessons, and using interactive teaching methods. These findings support van Manen's view of pedagogy as a relational and purposeful practice and align with Grimmett and MacKinnon's call for intentional and reflective teaching. The results also reflect national education reforms such as the Enhanced Basic Education Act of 2013, emphasizing learner-centered approaches like constructivism and collaboration.

Facilitation received the highest overall score among the four areas. Teachers were effective in building learning communities and promoting positive attitudes toward online learning. This supports Stone's assertion that facilitation is essential for engagement, especially in virtual settings. Teachers also addressed challenges faced by disadvantaged learners, consistent with Hewson's findings, and promoted inclusive, interactive, and supportive learning environments.

In the area of technology, teachers demonstrated strong digital literacy, effectively using hardware and software tools and solving technical issues independently. This aligns with the U.S. Department of Education's emphasis on the strategic use of digital tools and studies by Puma et al. and Warschauer, which highlight the importance of teacher training in leveraging technology for personalized and engaging learning.

Course administration was also rated extensively, indicating that teachers are skilled in using learning management systems (LMS) to organize content, activities, and communication. This supports research by Alamri et al. and Martin and Bolliger, which underscores the importance of clear structure and communication in online education.

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Teachers' ability to manage LMS features like calendars, forums, and homework tools ensures smoother course navigation and improved student engagement.

The study also explored collaborative learning strategies. For the Wheel of Ideas, teachers frequently engaged students in prior knowledge activation, promoted active participation, and synthesized key insights, aligning with Vygotsky's and Bandura's theories on social learning. These practices helped foster critical thinking and deeper understanding.

Similarly, the use of Conversation Groups was extensively evident. Teachers formed discussion-based groups, gave clear instructions, and ensured focused collaboration, which encouraged reflective dialogue and peer learning. This approach resonated with Vygotsky's zone of proximal development and supported findings by Johnson & Johnson and Prince, who emphasized the cognitive and motivational benefits of structured group interactions.

In summary, the findings affirm that teachers in the Panabo City Division are effectively implementing sound pedagogical, technological, and collaborative practices. These competencies reflect not only national educational mandates but also global standards for quality teaching. The extensive level of performance across all areas highlights the importance of continued professional development in ensuring effective, engaging, and student-centered learning across both in-person and online settings

CONCLUSION AND RECOMMENDATIONS

Presented in this chapter are the findings based on the results of the data, the conclusions drawn from the findings, and the recommendations for consideration.

The main focus of the study was to determine the significance of the relationship between teacher competence and collaborative learning strategies. The study was conducted with the selected teachers from the Division of Davao Oriental. There were one hundred forty-three (143) teachers who participated in this study. A descriptive correlational method of research was used in utilizing adopted research instruments. The said instruments were validated by the panel of experts and subjected to pilot testing before it was made ready for administration. Weighted mean, Pearson product moment correlation, and regression analysis were statistical tools used in analyzing the data. The hypotheses in this study were tested at a 0.05 level of significance.

The major findings of the study were the following: the extent of the teacher competence of the teachers is extensive. Meanwhile, the extent of the collaborative learning strategies of the teachers is also extensive. It was found that there is a significant relationship between teacher competence and the collaborative learning strategies. The hypotheses of no significant relationship between teacher competence and collaborative learning strategies and none of the domains of teacher competence significantly influence the collaborative learning strategies were rejected.

Conclusions

Based on the findings of this study, the following conclusions were offered: The extent of teacher competence is extensive, which implies that it is oftentimes evident. All dimensions of teacher competence which include pedagogy, facilitation, technology, and course administration, are at an extensive level, which means it is oftentimes evident. Meanwhile, the extent of collaborative learning strategies is also extensive, which means that it is oftentimes evident. All dimensions of collaborative learning strategies are oftentimes evident. Both variables call for all school members to work hand in hand to strengthen the existing status of the teacher competence and collaborative learning strategies.

Based on the findings, teacher competence, and collaborative learning strategies are correlated. Also, teacher competence significantly influences collaborative learning strategies. All domains of teacher competence, namely, pedagogy, facilitation, technology, and course administration significantly influence collaborative learning strategies by registering a p-value of .000 which is less than .05 in the level of significance. This leads to the rejection of the null hypotheses. Further, the result indicates that for every unit increase in the four domains of teacher competence, collaborative learning strategies also increases.

Recommendations

The following suggestions were offered based on the conclusions of the study: For higher officials in the Department of Education, it is recommended that national and regional policies be formulated to integrate continuous professional development programs specifically tailored to enhance teacher competence in pedagogy,

facilitation, technology, and course administration. These areas have been shown to significantly influence collaborative learning strategies, which are vital in developing critical thinking, communication, and cooperation among learners. The Department of Education should also consider allocating sufficient resources and training budgets to support these initiatives. Also, institutionalizing collaborative learning as a core instructional strategy in basic education through the K–12 curriculum framework may ensure its sustained and consistent implementation across all schools in the country.

For school principals, the study highlights the need to foster a school culture that supports ongoing teacher development. School heads should lead efforts to organize in-service training, learning action cells, and school-based mentoring sessions focusing on the four domains of teacher competence. Also, principals should encourage collaborative learning practices by providing instructional support, facilitating professional sharing among teachers, and monitoring the effective application of these strategies in the classroom. It is also essential for school leaders to establish a learning environment where collaboration is not only practiced by students but is also modeled by teachers and administrators alike.

For teachers, the findings stress the importance of being proactive in upgrading their competencies. Teachers are encouraged to continuously reflect on and improve their pedagogical approaches, facilitation skills, technological integration, and course administration capabilities. Doing so will enable them to implement collaborative learning strategies more effectively, thus enhancing student engagement and academic performance. Teachers should also engage in peer learning and seek feedback from colleagues to refine their instructional practices. Alsoembracing the constructivist and socio-constructivist foundations of collaborative learning requires teachers to shift from traditional lecture-based methods to more interactive, student-centered approaches that promote teamwork, communication, and shared inquiry.

For future researchers, this study provides a foundation for further investigations on teacher competence and collaborative learning. It is recommended that future studies explore the causal relationships and long-term impacts of teacher competence on student learning outcomes in collaborative settings. Researchers may also consider expanding the scope of the study to include other regions or educational levels to determine whether the results are consistent across different contexts. Additionally, qualitative methods such as classroom observations or interviews can provide richer insights into how specific teacher competencies influence the dynamics of collaborative learning. Exploring variables such as school leadership, student readiness, and instructional resources as mediating or moderating factors may also offer a more comprehensive understanding of how collaborative learning can be maximized in diverse educational environments.

The findings of this study underscore the pivotal role of teacher competence in fostering effective collaborative learning strategies. A coordinated effort from these education stakeholdeers is essential to translate these findings into actionable improvements in the teaching and learning process.

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