

Collaborative Learning Strategies: Effects on Performance of Kindergarten Pupils

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Abstract

This study determined the effectiveness of collaborative learning strategies in enhancing the reading performance of 44 kindergarten pupils at La Libertad Central School, School Year 2023-2024 employing quasi-experimental research design utilizing pre-test and post-test assessments of the control and the experimental group. It was revealed that the control group demonstrated a generally fair performance in the pre-test while the experimental group performed better in the pre-test. The test of significant difference between the pre-test performances of the control and experimental groups revealed no significant difference. The control group improved from a fair performance in the pre-test to a generally good performance in the post-test. The experimental group exhibited a remarkable improvement in the post-test, achieving a very satisfactory performance. The study revealed a significant difference between the post-test performances of the control and experimental groups. The test of significant difference between the pre-test and post-test performances of the control group revealed a significant improvement. The test of significant difference between the pre-test and post-test performances of the experimental group also showed a significant improvement. The test of significant difference in the mean gain between the control and experimental groups revealed a significant difference. The study highlights the positive impact of collaborative learning strategies on the reading performance of kindergarten pupils. With this, teachers may sustain the collaborative learning strategies used and integrate peer-assisted learning techniques, group reading activities, and interactive discussions to promote active participation in reading lessons.

Keywords: collaborative learning, quasi-experimental, reading performance

Introduction

The foundation of early childhood education is instrumental in shaping a child's academic and social success. This is the reason why schools underscore the importance of interactive and student-centered pedagogies that foster both cognitive and socio-emotional development. It is the duty of schools to provide a nurturing environment of love for reading and lays the foundation for future academic success. Learners are provided with enriched environments where they can engage in meaningful collaboration with peers, teachers, and parents to build foundational literacy skills. In an ideal classroom setting, pupils develop strong reading skills through engaging and interactive learning experiences. They actively participate in lessons, confidently recognize words, and demonstrate comprehension through meaningful discussions. With this, teachers employ dynamic instructional strategies that foster collaboration, engagement, and critical thinking to ensure that every child receives the support needed to progress in their reading development.

However, in reality, many pupils struggle with reading comprehension due to traditional, teacher-centered approaches that focus primarily on rote learning and passive instruction. These methods often fail to accommodate the diverse learning needs of young readers, leading to disengagement, poor retention, and a lack of confidence in reading. Additionally, some pupils experience difficulty in recognizing words, constructing meaning from texts, and expressing their thoughts effectively. This reading gap highlights the need for innovative instructional approaches that promote active participation and peer collaboration to enhance early literacy skills.

Globally, collaborative learning has been widely recognized as an effective instructional approach. The Organization for Economic Cooperation and Development (OECD, 2021) highlights that in education systems where cooperative learning is emphasized, learners demonstrate higher achievement and better engagement. In high-performing countries like Finland and Singapore, structured peer-assisted and teacher-guided learning have significantly contributed to learners' literacy proficiency (Schleicher, 2019). However, in developing countries, including many nations in the Asia-Pacific region, the adoption of collaborative learning remains inconsistent due to limitations in resources, teacher training, and classroom management strategies (World Bank, 2020).

At the regional level, Southeast Asia has seen efforts to integrate collaborative learning through various educational reforms. In particular, studies conducted in Malaysia and Indonesia reveal that when learners are engaged in structured peer collaboration, their reading comprehension skills and retention rates improve significantly (Zakaria & Iksan, 2019). However, despite these efforts, disparities remain, with many classrooms still relying on teacher-centered methodologies that limit student interaction and independent problem-solving (ASEAN Education Report, 2021).

In the Philippines, the challenge of low reading comprehension continues to persist. The 2018 Programme for International Student Assessment (PISA) results ranked Filipino learners among the lowest in reading performance out of 79 participating countries (OECD, 2019). The Department of Education (DepEd, 2021) has since initiated

programs such as Hamon: Bawat Bata Bumabasa (Every Child Reads Challenge) to strengthen reading interventions, yet issues surrounding ineffective instructional methods and minimal peer collaboration remain prevalent. Studies by Bernardo (2020) and David et al. (2022) indicate that Philippine classrooms, particularly at the learner level, still lack interactive and structured collaborative learning approaches that foster engagement and comprehension.

The aforementioned triggered the researcher to explore the implementation of collaborative learning strategies in teaching reading to kindergarten pupils. The study aimed to determine how these strategies influence reading performance through a quasi-experimental research design, comparing the effectiveness of collaborative learning with traditional instructional methods, providing evidence-based insights into its effect on reading comprehension. This is done by integrating peer-assisted reading, interactive group discussions, shared reading activities, and role-playing.

The study lies in its potential to transform early literacy instruction by promoting collaborative learning strategies. The findings would benefit teachers, enabling them to adopt more effective strategies to support struggling readers. School administrators can use the results to design literacy programs that emphasize collaboration and engagement. Additionally, the study contributes to educational research by highlighting the role of collaborative learning in enhancing foundational reading skills, ultimately fostering better academic outcomes for young learners.

Statement of the Problem

This study aimed to look into the effect of collaborative learning strategies on the performance of learners in La Libertad Central School during the Academic Year 2023-2024 using experimental methods. Specifically, it sought to answer the following questions:

1. What is the pretest performance of the learners in the control and experimental groups?
2. Is there a significant difference in the pretest performance between the control and experimental groups?
3. What is the posttest performance of the learners in the control and experimental groups?
4. Is there a significant difference in the posttest performance between the control and experimental groups?
5. Is there a significant difference in the pretest and posttest performance of the control group?
6. Is there a significant difference in the pretest and posttest performance of the experimental group?
7. Is there a significant difference in the pretest and posttest mean gain in the control and experimental groups?

Literature Review

In a 21st century classroom setting, collaboration has been deemed as one of the most crucial aspects that modern-day learners must inculcate into their thinking system for their development to advance. However, there is a plethora of factors that must be taken into account for collaboration to even just materialize as an effective aspect of learning. One of these factors is the fact that learning has been modified into an adaptive system in order to keep pace with unprecedented events like a pandemic. As such, Han and Ellis (2021) identified how the birth of the blended learning system alongside the implementation of collaborative learning was the adjustment for most institutions that used to fundamentally run in the conventional ways. This phenomenon is just one of the numerous contexts that must be considered to emphasize and maximize the benefit and appropriateness of collaborative learning strategies.

Accordingly, the online spectrum of operation for both adjusting and capable educational institutions found collaboration to still be pertinent in spite of the distance accentuated by online-based learning. In a study by Haugland et al. (2022), master's-level learners in Norway were exposed to collaborative learning per what the institution deemed to be an essential pedagogical approach that will enhance such an essential competency. It was revealed in their undertaking that learners developed better autonomy and self-responsibility in their academic pursuit when encouraged to collaborate with their peers. More specifically, the working processes of joint flexibility-flexible organization, individual responsibility-flexible organization and individual responsibility-unorganized came out as the working, albeit admittedly inadequate, strategy that most learners used.

It is not a surprise that collaboration is primarily dependent on the individual's ability to cooperate and work alongside another. It may be even said that collaboration will only be efficient if the character of an entity is capable within itself, otherwise working with others is not ideal if working alone is not ideal as well in the first place. Wu (2023) explored this angle of implementing collaborative learning, enthused by the rising exposure of such a learning strategy in contemporary teaching-learning contexts. Subsequently, the study revealed that indeed, learners need self-motivation alongside a supportive outside-motivation to face collaborative tasks efficiently. Aside from the perspective of the collaborators, it was also determined that the particular focus of collaboration in learning strategies depends on the nature of the group work.

Delving deeper into the previously mentioned aspect of motivation that is a key factor for an individual's willingness to actively participate in collaborative tasks, Jarvenoja et al. (2020) employed a design that specifically targets the aspect of activeness within a group work. To be exact, the design was based on a self-regulated learning framework that encouraged learners in a collaborative group with opportunities and support. The study highlighted how a two-way approach of creating scenarios that supports motivation and emotion and researching the multifaceted role of motivation and emotion in the context of collaboration is effective for strategies that particularly prioritize the learners. As such, the results also revealed that technology with its vast potential would be able to multiply the

effectiveness of collaborative learning strategies by empowering the inclusive outlook for the inherently diverse background of learners.

Collaborative learning strategies are capable of not just one but many avenues of targeted competencies that educators want for their learners to accomplish. In a similar manner, the proven theory of multiple intelligences has solidified the well-recognized approach of differentiated instruction. Since there are learners who are advance learners of a particular competency or skill while there are others who thrive in other foci, collaborative learning strategies would be apt for a variety of nuances. For instance, a differentiated approach could stem a collaborative effort where learners with advanced reading skills help the average and slow-learning ones. Every party involved would partake in the benefit: the teacher could focus on other aspects of the competency; the advanced readers could sharpen their leadership and teaching skills; and the average and slow-learners may learn quicker especially with their particular bond with their peers.

Materials and Methods

This study employed a quasi-experimental design, specifically the pretest-posttest control group design. The experimental group was exposed to collaborative teaching strategies, while the control group followed traditional instruction (Creswell & Creswell, 2018).

Research Environment

La Libertad Central School served as the research setting. This study was conducted at La Libertad Central School, a public school located in Zamboanga del Norte. The school serves a diverse group of learners, including those from rural and economically disadvantaged backgrounds. Based on recent assessments from the school's reading program, a significant number of learners struggle with reading comprehension and early literacy skills. Teachers have reported that many learners demonstrate difficulty in recognizing basic sight words, understanding simple texts, and maintaining engagement in reading activities. The 2022 school-based reading assessment indicated that nearly 60% of pupils fell below the expected proficiency level for their age, highlighting a pressing need for intervention.

Respondents of the Study

The respondents of this study consisted of 44 kindergarten pupils, who are enrolled at La Libertad Central School during the School Year 2023-2024, who have been identified as struggling with reading comprehension. The selection of respondents was carried out using a purposive sampling technique, which ensured that participants meet specific inclusion criteria relevant to the study's objectives.

Table 1
Distribution of the Respondents

Group	f	%
Experimental Group	22	50.00
Control Group	22	50.00
TOTAL	44	100

Research Instrument

A researcher-made questionnaire consisting of comprehension questions based on reading materials was used. Topics include "Ang Paborito Kong Lugar," "Sa Aming Komunidad" and "Komunidad Na Aking Kasama." Each reading material was comprised of a 10-item test. The questions were personally administered to them for accuracy of data. Particularly, "Ang Paborito Kong Lugar," explores familiar places in the school environment. This subtopic focuses on familiar places within the school that students often visit, such as the library, principal's office, and playground. It explores the significance of these locations and their role in students' daily experiences and learning activities; and develops responsibility and good habits in favorite places. This subtopic highlights how students can demonstrate responsibility and proper behavior in their favorite places. It covers cleanliness, respect for school facilities, and following rules, such as disposing of trash properly and preparing before activities, ensuring a positive and organized learning environment.

Meanwhile, "Sa Aming Komunidad," explores community cooperation and helping neighbors. This subtopic highlights the importance of teamwork and support within a community and explores how neighbors help each other, such as assisting new families moving in, cleaning their surroundings, and fostering a welcoming environment. Likewise, it tackles the roles and responsibilities of community members. This subtopic discusses the various roles of people in a community, including family members, neighbors, and local leaders and emphasizes how their actions contribute to maintaining peace, cleanliness, and cooperation in the community.

On the other hand, "Komunidad Na Aking Kasama," endeavors the roles and responsibilities of key community members. This subtopic explores the functions of various individuals in the community, such as teachers, school principals, security personnel, and barangay captains and emphasizes their contributions to maintaining order, ensuring education, and promoting community welfare. Also, this topic tackles the importance of cooperation in a

community. This subtopic highlights the value of teamwork and collaboration in fostering a strong and supportive community and discusses how students, educators, and local leaders can work together to achieve communal goals, ensuring a thriving and progressive environment.

Validation of the Instrument

The questionnaire underwent expert validation for content and face validity before administration. It was submitted to the adviser for fitness and later on introduced to the experts in assessment and evaluation for content validity. The questions were obtained from the Teachers' Guide cum Module issued by the Department of Education to teachers teaching in La Libertad Central School. The researcher used a 30-item questionnaire to collect data, specifically for the pre-test and post-test assessments. This instrument was reviewed and approved by experts. It was utilized to measure the students' proficiency in the Filipino subject. The questionnaire was developed with the help of books and research materials related to the study topics. It was designed as a multiple-choice test, allowing respondents to directly select their answers from the given options.

The formula below was used to obtain the D-value:

Where:

Di = Discrimination Index of item iii

UG = Number of correct answers in item iii among the top 27% of scorers

LG = Number of correct answers in item iii among the bottom 27% of scorers

n = Number of respondents in the larger group ()

The study conducted to determine the optimal level of difficulty and the discriminating power of the test items proved to be valuable in assessing which items were most suitable for measuring the effectiveness of the intervention used in the study. Both item analysis and test evaluation provided insights into how individual test items and the entire assessment functioned in a real-world setting. This method helped determine which test items should be retained, which were too easy or too difficult, and which needed to be revised, improved, or removed to meet the standard level of difficulty and achieve the appropriate level of differentiation among learners.

Scoring Procedure

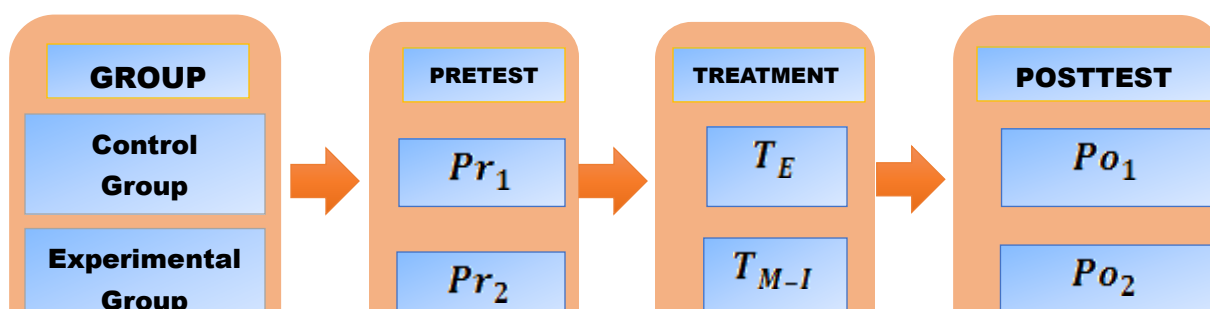
The ECCD Scaled Score-adopted interpretation for Standard Score below was used to interpret the performance of the experimental and the control group:

Ranges	Adjectival Rating	Interpretation
24.01-30.0	Very Good	Suggest highly advanced development
18.01-24.0	Good	Suggest slightly advanced development
12.01-18.0	Fair	Average overall development
6.01-12.0	Poor	Suggest slight delay development
6 and below	Very Poor	Suggest significant delay in overall development

Data Gathering Procedure

Pretests were administered before instruction. The control group received traditional reading instruction, while the experimental group was taught using collaborative teaching strategies. Posttests was then conducted to measure improvements. In this study, the researcher employed a quasi-experimental design, which included a pre-test and post-test for non-equivalent groups. The experiment was conducted during the final quarter of the School Year 2023-2024. The researcher personally facilitated the discussions and provided interventions for the respondents. The researcher interacted with both groups every week. The experimental group's schedule was Monday and Tuesday from 3:30 PM to 5:30 PM, while the control group met on Wednesday and Thursday at the same time in their respective classrooms in La Libertad Central School. The experimental process is illustrated in Figure 2. Before implementing the intervention, the researcher first conducted a pre-test for both the experimental group and control group (Pr1 and Pr2). Following this, the control group was taught using traditional instructional methods in the subject for the selected topic (TE), while the experimental group was taught the same topic with the integration of collaborative learning strategies (TM). After the intervention, both groups were given a post-test (Po1 and Po2).

Figure 2
Experimental Process



Statistical Treatment of Data

Treatment of data was performed by a hired statistician. The tools used in treating the data of the study was included in this part after referring them to the hired statistician. Frequency Count and Percentage.

Results

This study examined the effectiveness of collaborative learning strategies in enhancing the reading performance of 44 kindergarten pupils at La Libertad Central School during the School Year 2023-2024. This was done to address the limited effectiveness of traditional learning strategies in fostering reading comprehension among young learners. Grounded on Vygotsky's Social Constructivism Theory and Sweller's Cognitive Load Theory, the study determined the effect of collaborative learning strategies on the reading performance of kindergarten pupils by comparing the outcomes of an experimental group, which used collaborative strategies; and a control group, which used traditional methods. A quasi-experimental research design was employed, utilizing pre-test and post-test assessments to measure the reading performance of the two groups. Descriptive and inferential statistics were used to treat data.

Findings

Based on the study's results, the following are revealed:

1. The control group demonstrated a generally fair performance in the pre-test indicating moderate reading comprehension skills.
2. The experimental group performed better in the pre-test with results classified as generally good.
3. The test of significant difference between the pre-test performances of the control and experimental groups revealed no significant difference.
4. The control group improved from a fair performance in the pre-test to a generally good performance in the post-test.
5. The experimental group exhibited a remarkable improvement in the post-test, achieving a very satisfactory performance.
6. The study revealed a significant difference between the post-test performances of the control and experimental groups.
7. The test of significant difference between the pre-test and post-test performances of the control group revealed a significant improvement.
8. The test of significant difference between the pre-test and post-test performances of the experimental group also showed a significant improvement.
9. The test of significant difference in the mean gain between the control and experimental groups revealed a significant difference.

Ethical Considerations

As a courtesy and to recognize the authority of the school administration, a formal letter was sent to the Schools' Division Superintendent asking for permission as well as explaining the nature of the said research. Once granted, the approved letter and the recommendation notice was sent to the School Principal of La Libertad Central School. The researcher and her colleagues conducted the experiment both for the experimental and control groups. Learners were well-informed about the study before the start of the process. Afterwards, they were asked to sign a consent form about the confidentiality of the information that were gathered. The researcher made sure that the pupils and parents have agreed and consented to join the study in good faith without coercion or any mode of payment. Data were stored in a safe place and to be eradicated after the study had been presented before the panel. Confidentiality of the pupils were taken into consideration.

Discussion

Test of Significance

Depicted in Table 8 was the significant difference between the post-test performance of the pupils in the control group and the pupils in the experimental group. Precisely, the control group utilized a traditional learning strategy for their performance in reading whereas the experimental group was subjected to a collaborative learning strategy. Further, the tabulated data also depicted the actual mean scores of each group alongside the mean differences between the two, the standard deviation for their mean score of performance on average, and then the values that highlighted whether or not there was a significant difference between the group for every topic.

Table 8
Significant Difference of the Post-test Performances between the Control and Experimental Groups

TOPICS	Groups	Mean	Mean Diff.	SD	t-Value	p-Value	D
Ang Paborito Kong Lugar	Control	5.73	2.35	1.30	1.67	.002	*
Komunidad Na Aking Kasama	Experimental	7.88		1.48			
Sa Aming Komunidad	Control	5.45	2.44	1.21	1.73	.000	*
Ang Paborito Kong Lugar	Experimental	7.89		1.52			
Komunidad Na Aking Kasama	Control	5.59	2.37	1.26	.69	.001	*
	Experimental	7.96		1.55			

As presented in Table 8, the experimental group consistently achieved higher actual mean scores for their performance in reading during the post-test compared to the control group. Accordingly, the experimental group got a 7.88 actual mean performance to the 5.73 actual mean of the control group for Topic 1, a 7.89 actual mean for the experimental group to a 5.45 of the control group in Topic 2, and a 7.96 of the experimental group to the control group's 5.59 actual mean for Topic 3.

Moreover, the t-values of each actual mean performance across the three topics between the experimental and control groups, specifically: 1.67 with .002 for Topic 1; 1.73 with .000 for Topic 2, and .69 with .001 for Topic 3, all indicated that the null hypothesis was rejected. To be more specific, there was a significant difference in the post-test performance across Topics 1, 2, and 3 between the control group who used the traditional learning strategy, and the experimental group who utilized the collaborative learning strategy.

Nerona (2019) revealed that collaborative learning strategies were indeed effective in student achievement. In the context of the findings of this study, the data also depicted how significant the difference in performance was between a collaborative learning strategy and a traditional learning strategy. Enabling students to work and learn together nurtured a classroom environment where the learners competitively worked together rather than working competitively against each other.

However, Al-Mubireek (2021) suggested that despite the promising hype over collaborative learning, it could and should not replace the inevitability of traditional strategies to remain in practice even in modern-day environments of learning. Furthermore, there were cases identified to struggle in adapting a collaborative strategy for learning, such as situations where the high likelihood of peer misunderstanding could flare into an unnecessarily large issue. As such, a steady shift to a collaboration-centered strategy would necessitate an improved and more involved facilitating scheme from the instructor as well.

Peer collaboration plays a crucial role in enhancing student learning across various disciplines. Studies have shown that peer collaboration can significantly improve performance in tasks such as regression modeling (Li & Goos, 2022). It involves students working together to co-construct knowledge, provide feedback, and engage in effective peer instruction (Bernstein, 2022). Through peer collaboration, students can refine their skills, develop evaluative judgment, and enhance their ability to critically assess the work of others (Chang-Tik, 2022).

Table 9
Significant Difference Between the Pre- and Post-test Performances of the Control Group

TOPICS	Pre-test	Post-test	Mean Diff.	t-Value	P-value	D
Ang Paborito Kong Lugar	4.45	5.73	1.28	1.45	.001	*
Komunidad Na Aking Kasama	4.27	5.45	1.18	1.42	.002	*
Sa Aming Komunidad	4.04	5.59	1.59	1.48	.000	*

Table 9 displayed the significant difference between the pre-test and post-test performances of the control group. In particular, the data illustrated how the pupils who utilized the traditional learning strategy as a control

group performed during their pre-test and their post-test of reading three topics. Additionally, the table also depicted the corresponding mean differences of the actual means of the control group for each topic and the relation of values that would reveal the significant difference in their performance.

From what could be gleaned below, there was a consistent advantage of actual mean scores for the performance of the control group during post-test over pre-test results. Such consistency that the group obtained was: an actual mean score of 5.73 on the post-test over the 4.45 on pre-test along with a 1.28 mean difference for Topic 1; 5.45 over 4.27 with a difference of 1.18 for Topic 2, and 5.59 over 4.04 alongside a 1.59 difference. Analyzed together with the relation of t- and p-value, particularly: 1.45 with .001 on Topic 1; 1.42 with .002 on Topic 2; and 1.48 with .000 on Topic 3, the null hypothesis was rejected. More specifically, there was a significant difference between the pre-test and post-test performances of the pupils in the control group across Topics 1, 2, and 3 of reading.

Further, the results illuminated the standard outcome of learners in the sense that traditional learning strategies had normalized the pursuit of average and predictable outcomes across any nature of undertaking or activity among learners as emphasized in the study of Tularam (2018). Additionally, a traditional learning strategy relied more often than not on the teacher to direct the learning process. Al-Khaibary et al. (2020) signified in their study the increasing need for relevant strategies like collaborative learning for learner development and for professional and institutional enhancement.

Table 10
Significant Difference Between the Pre- and Post-test Performances of the Experimental Group

TOPICS	Pre-test	Post-test	Mean Diff.	t-Value	P-value	D
Ang Paborito Kong Lugar	4.43	7.88	3.45	2.41	.000	*
Komunidad Na Aking Kasama	4.35	7.89	3.54	2.43	.000	*
Sa Aming Komunidad	4.43	7.96	3.53	2.52	.000	*

Table 10 showed the significant difference between the pre-test and post-test performances of the experimental group. This group in particular consisted of pupils undergoing the intervention when taught the three topics. Moreover, presented as well were the data of corresponding actual means of the pre-tests and post-tests of the topics along their appropriate mean differences and the relation of values that indicated the significant difference of such data. To be specific, the data showed how the experimental group of pupils greatly improved across the topics of reading in the post-test in comparison to the pre-test.

Accordingly, the group achieved a 7.88 actual mean in the post-test and a 4.43 in the pre-test which led to a 3.45 mean difference in Topic 1. The same went for Topic 2 as the group obtained a 7.89 post-test actual mean as compared to a 4.43 pre-test which gave a 3.54 difference. Moreover, the group had the same advantage of post-test actual mean score over the pre-test actual mean in Topic 3, with 7.96 over 4.43 which differed by 3.53. Even more so, when it came to the relation of values, the data tallied across the three topics 2.41, 2.43, and 2.52 with all of each accompanied with .000, respectively. As such, the results highlighted that the null was rejected across all three topics. Precisely, there was a significant difference between the pre-test and post-test performances of the experimental group in Topics 1, 2, and 3 when they utilized a collaborative learning strategy for reading.

Table 11
Significant Difference of the Mean Gain Between the Control and Experimental Groups

Groups	Mean	Mean Diff.	SD	t-value	p-Value	D
Control	16.77		3.77			
Experimental	23.73	6.96	4.55	2.98	.000	*

Table 11 finalized the significant difference in the mean gain between the control group and the experimental group. To be precise, it tallied how the performance of the control group of pupils that used traditional learning strategy in their reading performance achieved a total mean could be significantly evaluated with the total mean obtained by the performance of the experimental group of pupils relying on collaborative strategy in their reading performance. Per usual, the table also included the total dispersion value and the t- and p-values between the two groups that corresponded to the ultimate description of their significant difference.

Accordingly, the control group obtained a total of 16.77 actual mean during their reading performance of the provided topics while using a traditional learning strategy with a standard deviation of 3.77 in total as well. This finding then indicated that the experimental group utilizing a collaborative learning strategy improved over their traditional counterparts supported by the totaled actual mean of 23.73 and a dispersion value of 4.55. In relation to this, the t-value of 2.98 and the p-value of .000 further clarified the initial impression of the result, particularly as it revealed that the null was rejected. More specifically, there was a significant difference in the mean gain of the

performances between the control group and the experimental group of pupils during the entire stretch of their reading performance of the topics.

The traditional learning strategy and a collaborative learning strategy had long been contested for which one would be the better approach in assuring an optimal outcome. Based on the findings of this undertaking, the collaborative learning strategy certainly guaranteed a significant difference in performance output especially when compared to the use of the traditional learning strategy. In the context of reading performance, the gathered and presented data provided immense implications on how the learners were better suited for pre-acquiring and then retaining knowledge through the support and effort of their peers aside from the instructors themselves.

Scager et al. (2017) further posited that collaborative learning would foster and prosper interdependence among learners. With such significance in the treated findings, fully adapting collaboration for learning would positively maximize the pattern of learners being empowered by their peers and upon achieving an ideal level of skill or knowledge be able to provide assistance to those struggling as well.

Gangmei and Kumar (2024) supported this by establishing how collaboration cemented a sense of teamwork among learners. Notably, the findings would not push for the replacement of traditional learning strategies because of their established essence in contemporary contexts of learning (Wang, 2022). Nevertheless, it should be clearer that a collaborative learning strategy would not just be a measure to increase outcomes and harness untapped capabilities but a requisite for vital aspects of learning and the development of skills like reading.

Conclusion

Collaborative learning strategies provide a significantly greater impact on literacy development among kindergarten pupils. Accordingly, interactive, peer-assisted, and group-based learning fosters deeper engagement, enhances comprehension, and accelerates skill acquisition compared to conventional approaches. Given the considerable learning gains observed, integrating structured collaborative learning activities into early literacy instruction to maximize student progress. Additionally, the study highlights the importance of fostering an interactive and student-centered classroom environment to reduce learning gaps and enhance overall reading proficiency. The crucial role of social interactions in learning and the importance of distributing cognitive efforts to enhance reading comprehension is further emphasized. While traditional teaching methods contribute to literacy development, collaborative learning strategies create a more dynamic and interactive learning environment where pupils actively engage with their peers. Simply put, the teacher-facilitated collaboration allows learners to share cognitive loads, construct meaning collectively, and reinforce understanding through social engagement. The study strongly supports integrating structured collaborative learning strategies into early literacy instruction. Furthermore, by promoting a student-centered approach, collaborative learning helps bridge learning gaps, ensuring that all learners, regardless of their initial proficiency, receive adequate support to improve their reading comprehension.

Recommendations

The following are hereby suggested:

1. Teachers may sustain the collaborative learning strategies used and integrate peer-assisted learning techniques, group reading activities, and interactive discussions to promote active participation in reading lessons.
2. School administrators may send teachers to training on collaborative teaching focusing on collaboration, active student engagement, and differentiated instructional strategies to sustain methods implementation.
3. Parents may engage in home-based reading interventions exercising collaborative reading activities at home to reinforce classroom instruction.
4. The school may conduct SLAC session on collaborative learning strategies to the informed conduct of the strategy.

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