

Collaborative Learning and Learners' Academic Performance



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ABSTRACT: Learning and socializing are fostered via collaborative learning. The study determined the level of learners' collaborative learning and learners' academic performance in elementary schools of Laguindingan District, Division of Misamis Oriental, for School Year 2023 – 2024 in terms of positive interdependence, promotive interaction, and individual accountability. The learners' level of academic performance and its relationship to collaborative learning. The descriptive method with content analysis using probability sampling was used as the research design with two hundred two (202) Grade - VI public elementary school learners. The data employed were collected through an adapted and modified survey questionnaire by Youngren (2021) and Delfino (2019). To analyze the gathered data statistically, the mean, standard deviation, and Pearson Correlational Coefficient (r) were employed. The results indicated the highest in collaborative learning in terms of promotive interaction, while individual accountability as the lowest. There was a significant relationship between collaborative learning and learners' academic performance. It is recommended that teachers should continuously encourage the learners to promote positive attitudes, motivation, and a sense of shared purpose. Further, teachers need to improve strategies, evaluate group dynamics, collect feedback from collaborative activities, and make necessary adjustments.

KEYWORDS: Academic Performance, Collaborative Learning, Individual Accountability, Positive Interdependence

I. INTRODUCTION

A vital part of education and human growth is the interconnected processes of teaching and learning. Both are interactive and entail the sharing of information, abilities, and knowledge between a teacher and a learner. When it comes to the teaching and learning process, Collaborative Learning (CL) refers to a collection of teaching and learning techniques that encourage learners to work together in small groups (Le et al., 2018). According to Ismail et al. (2018), the very essence of collaborative learning is working together toward a shared goal. This implies that in addition to their own learning, learners are accountable for one another's academic progress.

A collaborative group consists of two to five learners working in a group to maximize both individual and group learning. Collaborative learning may occur through peer-to-peer learning, also known as peer instruction that involves learners working in pairs or small groups to discuss concepts or find solutions to problems. The collaborative method emphasizes getting learners involved in group learning as opposed to traditional lecture-based training, which frequently emphasizes memorization. Furthermore, learners work together to better grasp the subject matter by drawing on their varied experiences, backgrounds, and views. To achieve the goal, learners must work collaboratively to understand and learn the subject thoroughly. That is why teachers delegated extra effort to incorporate various sorts of collaborative learning activities in every lesson to accomplish lesson goals and objectives that affect learners' academic performance.

The capacity of learners to demonstrate mastery of academic skills and knowledge in a variety of subject areas was referred to as learners' academic performance. This is typically measured in terms of scores and grades earned by the learners, which largely determines their success (Baliyan et al. 2021). This ability is evaluated through a variety of methods, including tests, quizzes, assignments, projects, and exams. Moreover, according to Tus (2020), learners' academic performance represents an important component of the factors influencing learners' success. It is essential to teaching and learning, particularly as a practical tool for evaluating the learner's educational progress.

Hence, as mentioned by Chapagain (2021), learners' academic performance is the primary indication of educational improvement in every country. Learners who have poor academic performance in class may find it distressing and difficult for

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themselves, their teachers, parents, and the school. National governments have concentrated a lot of their efforts on ensuring that secondary and elementary school education is both accessible and of high quality.

In accordance with the DepEd Memo No. 8, s. 2023 Multi-Year Guidelines on the Results-Based Performance Management System – Philippine Professional Standards for Teachers (RPMS-PPST), Classroom Observation Tool (COT)-RPMS for Proficient Teachers is under it. As mentioned in the said memorandum, under KRA 1 on Content Knowledge and Pedagogy, teachers who use the proficient tools are expected to apply a variety of teaching and learning strategies that are well aligned with the needs of both individual and group learning. It also encourages learners to participate, cooperate, and collaborate to improve learners' academic performance. Additionally, empirical studies on learners' engagement and collaborative learning have shown a favorable relationship between these two areas (Vega-Abarzúa et al., 2022). Encouraging a culture of collaboration in the classroom is the researcher's primary consideration because, based on Pahomov (2018), collaborative learning has been proven to be effective in developing relationships with peers and, most especially, creating better work.

Moreover, Olivier et al. (2020) affirm that a lack of learner engagement leads to learners' academic failure. Therefore, the goal of this study is to determine whether collaborative learning has a relationship with learners' academic performance in the district of Laguindingan.

The Social Interdependence Theory, which was first proposed by Deutsch and later expanded by Johnson and Johnson (2018), serves as the basic foundation for this study. This theory is one of the key influences on both collaborative and cooperative learning. The theory's founding principle is that individual learning outcomes are determined by the social relationships among group members and the psychological processes that learners go through while engaging in collaborative activities. Also, this theory has been used as the basis for the structural design of the tasks that learners have been given to complete. This hypothesis states that when group members realize that collaborating on a task will improve the chances of succeeding in the shared objectives, learners will begin to interdepend. This method of instruction encourages engagement and conversation amongst pairs and small groups of learners to deepen their understanding of the content being studied. This indicates how collaborative learning encourages positive social skills and supports learners who are working on challenging tasks. Furthermore, as mentioned by Bean and Melzer (2021) in the book called *Engaging ideas*, collaborative learning was referred as the wealth of strategies. It is for this reason that it offers a variety of benefits and encompasses numerous instructional methods that enhance the learning experiences.

Additionally, the same theory was applied in a study by Frykedal and Chiriac (2018), which emphasizes group work as a teaching method that fosters learners learning and sociability. The study focuses on how learners engage and collaborate when working on a group task, as well as the inclusive processes they create through the work they do together to achieve common goals by paying attention to one another and learning from one another. Thus, according to Social Interdependence Theory, there are important elements that must be present to enhance the collaborative potential of groups. These are positive interdependence, promotive interactions, and individual accountability.

Positive interdependence encourages learners to collaborate, assist, and cheer each other on as the learner studies and accomplishes. Promotive interactions are where learners are given the opportunity to help other group members resolve problems. Each of the learners from the group can give comments and suggestions to members to explore ideas and establish a framework for their understanding, and learners may also provide resource sharing that enables them to maintain positive interactions with peers. Individual accountability allows individuals to take responsibility for their actions rather than blame others. It also allows everyone to learn, grow, and solve problems. Interpersonal and small group skills increase the level of trust amongst group members, improve learners' communication skills, and help find solutions to problems when disagreements arise. Lastly, group processing entails the group members analyzing and assessing their work; this is essential for fostering, affirming, and preserving learners' productive working relationships.

Along the same line, Backer et al. (2018) found that learners are more likely to engage, have positive social skills, and have content skills that exert more effort when they are working successfully in collaborative groups. The faculty and learners agreed that collaborative learning environments or small groups are excellent methods for fostering learners in both learning and engagement that help learners' academic performance. As per Miguel et al. (2023), collaborative learning significantly contributes to improving learners' academic performance.

II. METHODOLOGY

The study used a descriptive method to describe and determine the relationship between collaborative learning and learners' academic performance. An accurate and systematic description of a population, situation, or phenomenon was the goal of descriptive research. What, where, when, and how questions can be answered in this method. Also, this study involves the

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gathering, processing, and interpretation of data. Descriptive research performs several vital tasks to give researchers a description of the context as well as a source of suggestions for improvement (McCombes, 2023).

In particular, a descriptive correlational research design was used to determine the impacts of collaborative learning under it, namely positive interdependence, promotive Interaction, and individual accountability on learners' academic performance among the public elementary learners from the six different schools of Laguindingan District. The research design was thought to be the most useful in fulfilling the objectives and goals of this study.

The study's respondents were the two hundred two (202) Grade - VI public elementary school learners from Laguindingan District, Division of Misamis Oriental, Region X, with no specific age range and no gender preferences.

The study employed a purposive probability sampling, wherein the five public elementary schools' Grade - VI learners in Laguindingan Central School, Mauswagon Integrated School, Sambulawan Elementary School, Sinai Elementary School and Tubajon Integrated School were the respondent schools.

The researcher employed the descriptive statistical method. In particular, mean, standard deviation, and Pearson Correlation Coefficient (r) were utilized as statistical tools.

The Mean often known as the average, is a basic measure of central tendency and is important in research for several reasons. In a data, the Mean denotes a typical or central value. It offers a summary statistic which is helpful in comprehending the general traits of a population or group. Comparing several groups or circumstances is made simple by using the Mean. Researchers can rapidly evaluate the average performance or behavior and draw insightful comparisons by computing the Mean for each group.

Similarly, the Standard Deviation (SD) is also considered as powerful tool in research. It provides insightful information on the variability or dispersion of data and measures how much a dataset's individual data points vary from the mean. Additionally, giving an indication of how widely distributed or closely grouped the values are facilitates the understanding of data. Effect size is vital when assessing an intervention's or treatment's practical effectiveness. With this data, researchers can decide with greater clarity regarding the validity and applicability of their findings.

A numerical value that expresses the magnitude and direction of the linear relationship between two variables is provided by Pearson Correlation. It determines if there is a significant relationship exists between the study's independent variables under collaborative learning, namely, positive interdependence, promotive Interaction, and individual accountability, and the dependent variable which is learners' academic performance in terms of the learners' Grade V General Average.

III. RESULTS AND DISCUSSION

Problem 1: What is the level of collaborative learning to learners in terms of:

- 1.1 positive interdependence;
- 1.2 promotive interaction; and
- 1.3 individual accountability?

Table 1: Learners' collaborative learning in terms of positive interdependence

Indicators	Mean	SD	Description	Interpretation
1. I find myself productive learning with my groupmates than learning alone.	4.14	0.92	Agree	High
2. I am confident working in groups than working alone.	4.11	0.92	Agree	High
3. Asking questions with my groupmates is helpful.	3.91	0.88	Agree	High
4. I value sharing of ideas.	3.92	0.88	Agree	High
5. I find group learning easier than individual learning.	3.87	0.85	Agree	High
6. I am willing to work in a group than working individually.	4.06	0.90	Agree	High
7. I believe in the saying that "two heads are better than one".	3.80	0.81	Agree	High
8. I like to explore things with my groupmates than working alone.	4.16	0.93	Agree	High
9. I am part of a goal-oriented group.	3.88	0.86	Agree	High
10. I felt happy about the success of the group as a whole.	4.31	0.96	Strongly Agree	Very High
Overall	4.02	0.89	Agree	High

Note: 4.20 – 5.00 Very High; 3.40 – 4.19 High; 2.60 – 3.39 Moderate; 1.80 – 2.59 Low; 1.00- 1.79 Very Low

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Table 1 indicates the learners' level of collaborative learning in terms of positive interdependence among Grade VI learners of the Laguindingan District Division of Misamis Oriental. It has an overall Mean of 4.02 with SD = 0.89, which is described as Agree and interpreted as High. This means that learners' collaborative learning in terms of positive interdependence was high because learners got to enjoy being with their peers and contributing, exploring, and learning new things together. When each of the learners believes that they are connected to one another in a positive way, then there is positive interdependence. Creating an environment where everyone's success was tied to the success of the group can lead to increased engagement and academic performance among learners.

Additionally, Johnson and Johnson (2018) highlighted on a study positive interdependence was considered as the primary and most significant component of collaborative learning because learners rely on each other to achieve shared goals, fostering a sense of unity and mutual support.

The indicator, *I felt happy about the success of the group as a whole*, got the highest Mean of 4.31 with SD= 0.96, which is described as Strongly Agree and interpreted as Very High. This means that learners who are part of a collaborative group are pleased with the group's overall success. Learners in a group may feel more connected and bonded to one another when the group accomplishes its objectives. Celebrating the success of a group can enhance the positive experience of collaborative learning. Acknowledging every learner's contribution and achievement fosters a sense of camaraderie and can further motivate individuals within the group.

This finding was supported by Jacobs and Renandya (2019), who stated that teachers practice student-centered education, foster collaboration among their learners, and adapt their teaching strategies to meet the needs of various groups. These researchers believed that when learners collaborate to achieve a shared goal, the group's achievement is evidence of their combined efforts. The collaborative element has the potential to raise everyone's level of contentment and overall well-being. Teachers guarantee that every learner participates fully in the learning process in this way. By encouraging learners to take initiative and actively participate, this role in a learner-centered education raises the learner's enthusiasm to study.

On the other hand, the indicator *I believe in the saying that "two heads are better than one"* got the lowest Mean of 3.80 with SD = 0.81, which is described as Agree and interpreted as High. This means learners prefer working collaboratively with two or more peers than doing classroom activities alone. Collaboration and pooling ideas together leads to richer and more comprehensive ideas and solutions. It is amazing how different perspectives from every member of the group can complement each other, creating a synergy that results in better outcomes. Working together allows everyone to contribute their unique strengths and insights, making the collective effort more powerful than individual contributions alone. Learners believed that to solve a problem or complete a specific task effectively, learners need to collaborate with one another.

As mentioned by Parker and Thomsen (2019), the level of awareness is present when learners are aware of their connections in such a way that they are dependent on the success of their group members. Groups that are positively interdependent view their efforts as beneficial to one another; the learners collaborate on tasks, offer assistance to one another, and celebrate successes together. There are no free riders because every member of the group contributes in various ways.

Table 2: Learners' collaborative learning in terms of promotive interaction

Indicators	Mean	SD	Description	Interpretation
1. I share my ideas and experiences with my groupmates.	4.18	0.92	Agree	High
2. I ask my teacher for help.	4.14	0.91	Agree	High
3. I ask my groupmates for help.	4.06	0.90	Agree	High
4. I listen to my groupmates when they are talking.	4.11	0.91	Agree	High
5. I give suggestions to solve group problems.	4.20	0.92	Strongly Agree	Very High
6. I find it simple to express my ideas and opinions to the group.	3.80	0.87	Agree	High
7. When making choices as a group, I take my group members' opinions into account.	4.00	0.89	Agree	High
8. I show equal respect to everyone.	4.40	0.98	Strongly Agree	Very High
9. I share my learning experiences with my groupmates.	3.95	0.88	Agree	High
10. Collaborating in group promotes better understanding of the lesson.	4.22	0.93	Strongly Agree	Very High
Overall	4.11	0.91	Agree	High

Note: 4.20 – 5.00 Very High; 3.40 – 4.19 High; 2.60 – 3.39 Moderate; 1.80 – 2.59 Low; 1.00- 1.79 Very Low

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Table 2 shows the level of collaborative learning in terms of promotive interaction. It has an overall Mean of 4.11 with SD = 0.91, which was described as Agree and interpreted as High. This means that promotive interaction in group learning involves learners' communication and behavior that support and encourage each member's educational involvement and learning. Collaboration and excellent communication are essential when working in a group. Learners who collaborate with their peers grow in their ability to communicate, which is important in many facets of life.

Thus, promotive Interaction as mentioned by Parker and Thomsen (2019), refers to learners helping, supporting, respecting, complimenting, and motivating one another in groups. They are engaging in positive relationships, develop interpersonal and linguistic abilities, inspiring one another, and come to know one another. Furthermore, these interactions build good relationship between the group members that leads to a supportive learning environment where every learner feels appreciated, supported and inspired to take an active role in the learning process for deeper learning, which in turn fosters a healthy group dynamic for the learners. As mentioned by Johnson and Johnson (2018), the source of learning was through dialogs and interactions. Promotive learning in a collaborative group builds a sense of community that encourages participation, and ultimately contributes to the success of the group as a whole.

Moreover, the indicator, *I show equal respect to everyone* has the highest Mean of 4.40 with SD = 0.98, which is described as strongly Agreeable and interpreted as very high. This means that learners who believe continuous interaction is necessary for success are said to engage in promotive interactions. In fact, positive relationships and a sense of belonging can be fostered when a person respects people and receives respect in return. Giving equal respect to everyone, especially when learners are in a group, was important because, through this, learners value each of the members' ideas, points of view, suggestions and recommendations that leads to promoting better communication. Respecting one another creates a welcoming and inclusive learning atmosphere that improves communication, teamwork and even the group experience as a whole. Better communication, trusting one another, and productive exchange of various ideas are frequently the outcome of promotive Interaction.

On the other hand, the indicator, *I find it simple to express my ideas and opinions to the group*, has the lowest Mean of 3.80 with SD = 0.87, which was described as Agree and interpreted as High. This means that the learners wanted to be heard by expressing their opinions and ideas with the group but found it a bit challenging for them. It is imperative to promote diverse perspectives among learners, as their varied points of view enhance their understanding of the subject matter. Having strong opinions makes it easier for learners to communicate their viewpoints and establish authority. Moreover, speaking up and expressing one's thoughts and opinions helps a person identify who they really are. Possessing various ideas and opinions demonstrates learners' passion and ability to keep their ideas on the table. For this reason, in order to accomplish shared objectives, learners must effectively communicate and settle disputes in a positive way.

The study of Lyndon et al. (2020) supports the finding of this study as he asserted that high exchange of information results in a greater quantity and range of ideas and opinions because when learners know their roles, learners will openly discuss one another's ideas, and evaluate them based on their knowledge and prior experiences. Encouraging critical thinking via the process of expressing and justifying one's opinions sharpens reasoning and encourages learners' critical analysis. In general, learners being able to freely express their opinions enhances group learning and leads to a better understanding.

Table 3: Learners' collaborative learning in terms of individual accountability

Indicators	Mean	SD	Description	Interpretation
1. I willingly participated in the group task.	4.09	0.91	Agree	High
2. I did my best to achieve the learning goal.	4.28	0.95	Strongly Agree	Very High
3. I took the group task seriously.	4.13	0.92	Agree	High
4. I'm completely aware of my role in the group.	3.98	0.89	Agree	High
5. The members of the group work together.	4.40	0.98	Strongly Agree	Very High
6. I made positive contributions of the other members of the group.	3.83	0.85	Agree	High
7. I did my best even if no one is watching.	4.10	0.91	Agree	High
8. I completed assigned task on time.	4.08	0.92	Agree	High
9. I was able to share my knowledge, and take into account the knowledge of the other group members.	3.96	0.89	Agree	High
10. I encourage everyone to do their best to achieve group goals.	3.16	0.85	Agree	High
Overall	4.00	0.91	Agree	High

Note: 4.20 – 5.00 Very High; 3.40 – 4.19 High; 2.60 – 3.39 Moderate; 1.80 – 2.59 Low; 1.00- 1.79= Very Low

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Table 3 shows the level of collaborative learning in terms of individual accountability. It has an overall Mean of 4.00 with SD = 0.91, which is described as Agree and interpreted as High. In a group context, individual accountability guarantees that each learner is accountable for their contributions and learning. Being personally accountable means learners accept responsibility for the outcomes of one's decisions and deeds. When anything goes wrong, learners try their best to make things right without placing the blame or offering an explanation to anyone. Being accountable and aware of the learners' tasks and responsibilities makes the group collaborate and function well.

In addition, Frykedal and Chiriac (2018) agreed that in order for group work to be implemented in a beneficial way, it is necessary for each learner to actively participate in the discussions surrounding the group work structures and analytical discussions. By emphasizing individual accountability, group dynamics are strengthened, and the learning experience becomes more robust as each member actively engages and takes ownership of their role within the group.

Moreover, the indicator, *The members of the group work together*, got the highest Mean of 4.40 with SD = 0.98, which is described as Strongly Agree and interpreted as Very High. Learners working together fosters diverse perspective, encourages shared learning and often leads to more comprehensive understanding. A quality group learning environment promotes academic confidence. Learners have various perspectives and mold their viewpoints with respect to their classmates. Learners' accountability for their own learning may rise as a result of group learning. Additionally, group goals and individual accountability are essential because they provide learners a reason to support and motivate one another to give it their all. Learners will be motivated to teach each other if they value performing well in a group, and the group can only succeed when all members have learned the topic (Casey & Fernandez-Rio, 2019).

However, the indicator, *I encourage everyone to do their best to achieve group goals*, has the lowest Mean of 3.16 with SD = 0.85, which is described as Agree and interpreted as High. Establishing learners' precise responsibilities, defining clear individual and group expectations, and highlighting the value of each member's contribution to the group's success are all ways to encourage accountability. Learners find it a bit challenging to encourage their peers to do their best because some of the learners do not take the activity seriously and just do classroom activities merely for participation.

The current finding is similar to the study of Zheng et al. (2020), saying that learners who collaborated in groups were able to produce significant positive effects because they had plenty of opportunities to interact with one another and had time to encourage one another during the learning activity. This means that encouragement is necessary when working with groups so that each member has the same drive and sense of responsibility as others. Accountable learners perform their best in a group setting entails clear communication, enthusiastic involvement, active listening, offering learners own ideas, and being willing to work with others. Achieving a common goal requires striking a balance between showcasing one's abilities and helping the group as a whole.

Table 4: Learners' overall collaborative learning

Variables	Mean	SD	Description	Interpretation
Positive Interdependence	4.02	0.89	Agree	High
Promotive Interaction	4.11	0.91	Agree	High
Individual Accountability	4.00	0.91	Agree	High
Overall Mean	4.04	0.90	Agree	High

Note: 4.20 – 5.00= Very High; 3.40 – 4.19= High; 2.60 – 3.39= Moderate; 1.80 – 2.59= Low; 1.00- 1.79= Very Low

Table 4 presents the learners' overall level of collaborative learning. It reveals that the indicators under collaborative learning specifically positive interdependence, promotive interaction, and individual accountability. It has an overall Mean of 4.04 with SD = 0.90, which is described as Agree and interpreted as High. This means that respondents do agree that collaborative learning allows learners to work and collaborate together so that they can all learn and grow together. However, in collaborative learning, some individuals may put in less effort and just depend on other group members to finish the task. To minimize the risk of free-riding or social loafing in collaborative learning settings, learners must realize that learners who engage in collaborative learning not only acquire higher-order thinking skills but also experience an increase in confidence and self-worth. Through providing an example of the topic, group activities can optimize the educational experience while enhancing social and interpersonal skills. Learners gain leadership experiences and learn how to collaborate with different kinds of learners.

Moreover, *promotive interaction*, has the highest variable with a Mean of 4.11 with SD = 0.91, which is described as Agree and interpreted as High. This shows that it is of the utmost importance for learners to respect and assist one another as well as share pertinent ideas, opinions, and experiences. This is because through this promotive interaction, learners enjoy learning and

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improve their sociability. Learners who engage with their peers continually strengthen their emotional intelligence, communication, and conflict-resolution abilities. This is for the reason that learners feel more at ease dealing with their classmates both inside and outside of the classroom.

In groups that exhibit high collaboration, learners participate in encouraging interactions and demonstrate a readiness to assist one another in collaborating to finish the given task and reach their goal (Cukurova et al., 2018). In fact, Topping et al. (2017) proposed that the foundation of cooperative and collaborative learning should be promotive interactions or, also known as constructive interactions.

Among the three indicators under collaborative learning, the lowest variable is *individual accountability*. It has an overall Mean of 4.00 with SD = 0.91, which is described as Agree and interpreted as High. Learners who have strong accountability are deeply accountable for their words, actions, progress, and development. Learners should not only excel academically but also grow in confidence and commitment in terms of their personal life and education. Furthermore, Van Leeuwen and Janssen (2019) highlighted that an accountable individual should be open to positive and negative feedback and view failure as an opportunity to learn and grow. By being individually accountable learners will be able to accomplish the both personal and group goals.

Problem 2: What is the level of the learners' academic performance?

Table 5: Learners' overall academic performance

Level of Academic Performance	Frequency	Percentage
Outstanding	44	21.78
Very Satisfactory	84	41.58
Satisfactory	69	34.16
Fairly Satisfactory	5	2.48
Did Not Meet Expectations	0	0.00
Total	202	100.00

Table 5 shows the learners' overall academic performance. As shown in the table above, among the two-hundred two (202) respondent learners, forty-four (44) of them with a percentage of 21.78 got outstanding, eighty-four (84) of the learners got a percentage of 41.58, got very satisfactory, sixty-nine (69) learners with a percentage of 34.16 got the Satisfactory, and lastly, five (5) learners with a percentage of 2.48 got the fairly satisfactory. Based on the presented data above, it is clear that there are no Grade V learners below Fairly Satisfactory. It clearly implies that the learners' general averages for School Year 2022-2023 have a very satisfactory academic performance despite not being exceptionally high or outstanding; 85-89 general averages are not bad. This very satisfactory level of academic performance leads to personal and professional development and success, which opens doors to every learner's variety of opportunities in the future. By investing in the learners' academic performance, learners can acquire the abilities needed to excel both within and outside of the classroom. It also enables the learners to make contributions to society, build valuable connections with their peers and other people, and, lastly, grow in confidence.

Problem 3: Is there a significant relationship between collaborative learning and learners' academic performance?

Table 6: Test correlation on learners' collaborative learning and academic performance

Variables	r-value	p-value	Decision	Interpretation
Positive Interdependence	0.4243	0.0024	Reject Ho	Significant
Promotive Interaction	0.4338	0.0079	Reject Ho	Significant
Individual Accountability	0.4893	0.0015	Reject Ho	Significant

Note: Significant < 0.05; Not Significant >0.05

Table 6 shows the test correlation between learners' collaborative learning and academic performance. This provides an analysis that all the independent variables mentioned are significant. The variable promotive interaction got the highest p-value of 0.0079 followed by the variable positive interdependence with the p-value of 0.0024 and lastly the variable individual accountability with the p-value of 0.0015. This clearly means that these variables under collaborative learning has a significant effect on learners' academic performance.

This means that there is a significant relationship between the dependent and independent variables because when learners have collaborative work, there is active participation, which clearly means that learners are more actively involved in the learning process, leading to a more profound understanding of the lesson that affects the learners' academic performance.

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Positive Interdependence encourages learners to motivate one another, work well together, and pursue group goals when they believe that their success is dependent on that of their peers. This variable is significant for the reason that it promotes teamwork, creates a positive learning atmosphere for both the learners and teachers that results in higher academic achievement.

On the other hand, the variable *promotive interaction* highlights positive and constructive engagement between teachers, peers, and learners. When there's a supportive and encouraging atmosphere, learners are motivated to assist each other in their academic pursuits that leads to high academic performance. This variable promotes effective teacher-learner communication, collaborative group work, peer tutoring, and a general culture that fosters curiosity and a love for learning. Such an environment often enhances learners' engagement, understanding, and overall academic performance.

The third variable, under individual accountability is significant as it gives a strong emphasis on taking ownership of learning results. Learners who are individually accountable are held responsible for their own academic progress exhibit excellent work habits, self-control, and a sense of ownership over their education. Learners are driven to meet expectations, create and fulfill personal and group goals to do better academically.

Thus, the independent variables, namely positive interdependence, promotive interaction, and individual accountability under collaborative learning, are associated with learners' academic performance, with a p-value of far less than 0.05. This implies that learners learn effectively with collaborative learning because this is where learners form good social relationships and exert collective efforts into a group activity, assignment, or educational project assigned to them. Delfino (2019) puts emphasis on building strong collaboration among educators, learners, and other stakeholders since it clearly articulates expectations, shares information, and encourages dialogue to promote a collaborative atmosphere in creating meaningful learning experiences.

IV. CONCLUSIONS

Based on the previously gathered and mentioned results, the study's conclusions are as follows:

1. The level of collaborative learning in terms of promotive interaction is high, where learning involves communication and behavior that encourage each member's educational involvement and learning.
2. Learners are performing well academically based on the learners' overall academic performance. Given that the majority of the learners received a very satisfactory general average, they were able to effectively meet the academic requirements.
3. There is a significant relationship between collaborative learning and learners' academic performance. Learners are more actively involved in the learning process, leading to a more profound understanding of the lesson that influences their school performance.

V. RECOMMENDATIONS

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

1. Teachers may continuously emphasize the significance of individual accountability among diverse learners. The learners need to actively participate in group work structures and analytical discussions. Group dynamics strengthen the learning experience, which actively engages and takes ownership of the role within the group.
2. To achieve better performance, teachers may use a variety of collaborative teaching strategies. These activities encourage active learning, which will open doors to different engaging capabilities.
3. Teachers may enrich learners' academic performance through collaborative learning that leads to high academic performance. Effective teacher-learner communication, collaborative group work, peer tutoring, and a general culture that fosters curiosity and a love for learning. Such an environment often enhances learners' engagement, understanding, and overall academic performance.

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