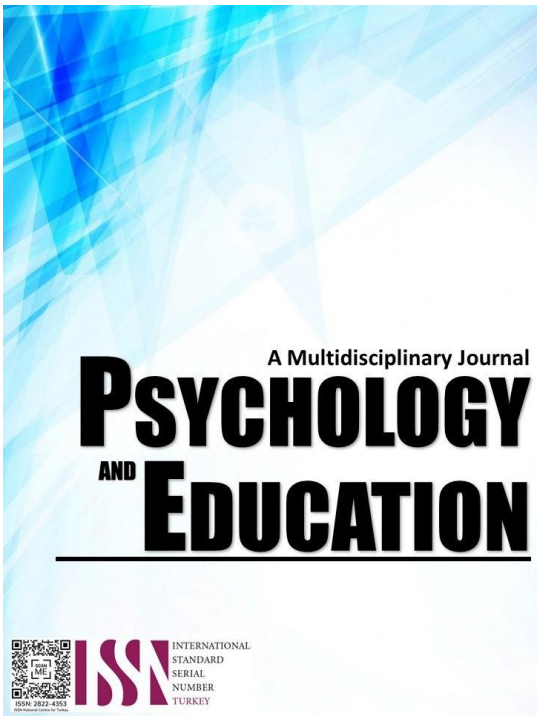
UTILIZATION OF COLLABORATIVE LEARNING ACTIVITIES IN INSTRUCTION ACROSS SENIOR HIGH SCHOOL STRANDS: EXPERIENCES AND PERCEPTIONS OF GRADE 11 LEARNERS



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Research Article

Utilization of Collaborative Learning Activities in Instruction across Senior High School Strands: Experiences and Perceptions of Grade 11 Learners

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Abstract

This study evaluated the experiences and perceptions of senior high school learners regarding the utilization of collaborative learning (CL) activities in instruction. This study was conducted using a descriptive survey method of Grade 11 learners across academic strands. Each strand is equally represented using purposive sampling. The result of the study reveals that collaborative learning activities improve learners' participation in classroom interaction and allow them to grasp the content efficiently. Furthermore, it is also shown that the Sciences, Technology, Engineering, and Mathematics (STEM) strand learners are more engaged and discerning than HUMSS and ABM strands when teachers use collaborative learning activities. Overall, the finding shows that using collaborative learning activities as a pedagogical approach helps learners understand the lesson better. Lastly, although STEM strand learners have more positive responses to using CL, it is also established that ABM and HUMSS strand learners are also optimistic about using CL as a learning approach in instruction.

Keywords: *collaborative learning, learning approach, student-centered pedagogy, classroom interaction*

Introduction

Education plays a transformational role, and its content must address relevant social development issues and foster values of cooperation, solidarity, equality, and inclusiveness. Individuals must learn how to cope with unpredictable and unknown future situations (Colomer, et al., 2021). There is a change happening in our schools today. The shift from traditional (with the teacher talking all of the time) to a new and innovative way where we learn together is already possible. Some studies reveal that more students learn when activities are done in groups. Students who collaborate build better ideas during group discussions (Qureshi et al., 2023). This is what we are talking about by calling it collaborative learning, students come together and work to achieve the objective of their lesson. It is not just about earning good grades, it is a way to develop an inclusive classroom where everyone belongs and learns from each other. Students believed the time they put into their group, participating in class discussions, and being pushed by their teachers were the factors that ultimately connected them to either the topic or each other. In the current educational landscape, social media for collaborative learning engagements is also proven to be effective in motivating learners to perform and do the activities (Ansari, J. A. N., & Khan, N. A., 2020).

Collaborative learning really can only go so far, however, in all, it is intended to share with students facts and content. It promotes them to sharpen essential skills like critical thinking critically and promotes student retention (Warsahm et al., 2021). Students' social interaction skills are also improved with collaborative learning. Even students feel that it motivates everyone to work with the whole team as a single target. It creates an environment in which they can learn effectively and cheerfully by improving their communication and teamwork abilities. The collaborative learning approach nurtures students with important social skills that they need in the future (Ghavifekr, S., 2020)

These are the important skills they need, one day in their work world. It is about understanding that learning is not a solitary pursuit but rather something you engage in with other people. While this is essential for collaborative learning to succeed, the commitment of both students as well as teachers is needed. Students must have a role in their learning and the mediation role of the teacher to transform their teaching approach from doing it to or for students to doing it with classmates (Herrera-Pavo, M. Á., 2021).

Aside from preparing the teachers and learners, a learning environment that fosters collaboration and teamwork must also be created. Hence, the role of academic institutions is also essential. Understanding what both students and teachers think about this new approach is key to making it work. Research results have consistently shown that CL improves students' academic achievement as well as social interaction when carried out responsibly. The development of cooperative relationships allowed students to assume greater responsibility for the lessons (Silva, R., et al., 2021). This study takes a closer look at how collaborative learning affects teaching, from the perspectives of both students and teachers. It looks at the good and the bad and offers ideas on how to use collaborative learning to make students more interested, help them learn more deeply, and create a classroom where everyone feels welcome and supported. Hence, collaborative learning is a powerful tool that can change the way we teach and learn.

Research Questions

The study aimed to evaluate the experiences and perceptions of Grade 11 learners on the effectiveness of using collaborative learning as an approach to instruction. Specifically, the following questions will be answered:

1. What is the learner's experience toward collaborative learning as an approach to instruction in terms of:
    1.1. classroom activities; and

1.2. mastery of content?

2. What are the perceived benefits and challenges of collaborative learning in various SHS strands:
   2.1. Science, Technology, Engineering, and Mathematics strand;
   2.2. Accountancy, Business, and Management strand; and
   2.3. Humanities and Social Sciences strand?

Literature Review

The Social Development Theory by Vygotsky is dynamic and defines learning as essentially formed through social connections. It contrasts with the classic individual internalized perspective of learning and foregrounds social and cultural contexts as key in the configuration of cognitive development. Language, social interactions, and cultural intermediaries scaffold learning (Albuquerque, A., & Martins, M. A., 2021). It strikes the core of the principles of collaborative learning — which is built on a belief in the power of all parties involved: students, teachers, and subject matter experts (there are likely many more) as they interact with each other in meaningful ways. Collaborative learning, on the other hand, is a way of considering how students learn in a collaborative setting; learners interact in an exchange of ideas, negotiation of meaning, and co-construction of knowledge.

According to Vygotsky, this social dimension is enhanced as education experiences cognitive development alongside intellectual growth. An imaginative space that lies at the heart of the learning process. This zone occurs between what a student can do alone, and what he or she can do with help from someone who knows more. It is a place of struggle and encouragement, one that forces learners out of their comfort zones without pushing them over the edge (Järvenoja et al., 2020). Collaborative Learning also creates a lively student-instructor community where students are encouraged to communicate among themselves, making classrooms bubble with constructive debate and dialogue around sensitive subjects. It is also noted that, collaborative learning activities such as think–pair–share help to improve the communication skills of learners (Namaziandost et al., 2020). This learning experience delivers immediate feedback from peers and promotes a respectful debate, which ensures that the recovery of knowledge is more satisfactory and dynamic for everyone (Tan, J. S., & Chen, W., 2022). When students are more at liberty to express their viewpoints and opinions about how they perceive things, it typically leads them to a deeper level of learning on the topic that usually enhances the levels of understanding and style in good balance with enhanced levels of retention (Keramati & Gillies, 2021).

Collaborative learning is an optimal environment to leverage the potential of ZPD. Collaborating: Complex problem-solving often needs a group of people with various skills and knowledge working collectively towards the same objective (Taranto et al., 2024). This variety results in enabling learners to connect with the ones a little advanced in their development, enabling them to act as mentors and provide the support that is required by others during their interactions (Singh et al., 2023).

Learners are required to work collectively in solving problems and analyzing concepts that are too complex for an individual to resolve using their understanding, and joint work offers learners a platform for sharing innovative ideas. This allows for cognitive development and a feeling of agency in one's own life. Collaborative educational methods entail students collaborating in relatively small groups Consequently, CL fosters camaraderie and cooperation among students as they strive towards a common goal. It also augments learning as students get insights via diverse perspectives and engage in idea exchange (Murat et al., 2024)

Furthermore, with the advent of 21st-century education and the level of employment, team playing and cooperation are essential. However, many learners do not understand the concept and utilization of collaborative learning in instruction. This study will provide important feedback on how CL is happening inside a Senior High School classroom based on the experiences of teachers and learners.

Methodology

Research Design

The researchers employed a descriptive survey method in collecting, analyzing, and interpreting the data. This approach enhances the validation of findings since it requires a more comprehensive interpretation of results.

Respondents

The respondents of the study were the Grade 11 learners of Saint Louis College-Cebu representing STEM, ABM, and HUMSS strands. Out of 160 Grade 11 learners, only 60 are considered as respondents. To strengthen the sampling process, a 12–item cognitive test was conducted to determine who among the population has high experiences with collaborative learning activities. Only those who got a score of 10 and up are considered in the sampling. A purposive sampling was used to determine respondents from each strand. The respondents are equally distributed according to strands (STEM -20, ABM -20, and HUMSS – 20).

Instrument

The researcher used a survey questionnaire to gather data from the respondents. The questionnaire evaluated the learners' experiences and perceptions of the utilization of collaborative learning activities in classroom instruction.

Procedure

The first stage of this research involves a carefully planned and comprehensive data collection process. A letter is sent to the High

School Principal for approval on the conduct of a survey of Grade 11 learners. After the approval of the request, the researchers organized a general assembly of all Grade 11 learners. A cognitive pilot testing on their familiarity with collaborative learning activities was conducted. From the learners who passed the cognitive testing, 20 learners from each strand were randomly selected to answer the survey questionnaire. Survey questionnaires were distributed to all respondents. The data were collected and tabulated.

Data Analysis

The data collected from the survey were analyzed to evaluate the experiences and perceptions of learners on the utilization of collaborative learning activities in instruction. Quantitative data from the survey was meticulously examined and was subjected to statistical treatment. Qualitative data from the answers of the respondents will also be analyzed.

Results and Discussion

Learners' Experience with Collaborative Learning

Table 1.1. *Classroom Activities*

Item No.	*Strongly Disagree (1)*		*Disagree (2)*		*Neutral (3)*		*Agree (4)*		*Strongly Agree (5)*		*Mean score and quantitative description*
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	
I am motivated to work with my classmates on group projects and class activities.	0	0.00	5	8.33	14	23.33	26	43.33	15	25.00	3.85 (Agree)
I can learn more effectively when I collaborate with others in class.	1	1.67	2	3.33	10	16.67	33	55.00	14	23.33	3.95 (Agree)
I feel more comfortable sharing my thoughts in group activities.	2	3.33	5	8.33	28	46.67	15	25.00	10	16.67	3.43 (Agree)
I feel that my contributions are given value by my groupmates.	1	1.67	1	1.67	19	31.67	26	43.33	13	21.67	3.82 (Agree)
I can participate actively during collaborative learning activities.	0	0.00	3	5.00	19	31.67	20	33.33	18	30.00	3.88 (Agree)
								Mean			3.79 (Agree)

Legend: 1.00-1.80 - Strongly Disagree | 1.81-2.60 - Disagree | 2.61-3.40 - Neutral | 3.41-4.20 - Agree | 4.21-5.00 - Strongly Agree

Table 1.1 indicates that collaborative learning is generally well-received by learners, with an overall mean score of 3.79, representing agreement on its effectiveness as an instructional approach. A substantial 68.33% of students reported feeling motivated to work on group projects and activities (mean 3.85), which demonstrates that collaboration fosters engagement and enhances the classroom experience. Notably, 78.33% of learners agree or strongly agree that they learn more effectively when collaborating with peers (mean 3.95), underscoring the significant role of peer interactions in facilitating deeper understanding and knowledge retention. Active participation is also affirmed by 63.33% of learners (mean 3.88), showing that students are not just present but actively contributing during collaborative activities.

However, deeper analysis reveals challenges, particularly in comfort levels with sharing ideas. Only 41.67% of learners agree or strongly agree that they feel comfortable sharing their thoughts in group settings, while 46.67% remain neutral (mean 3.43). This suggests that, despite the overall positive response to collaborative learning, nearly half of the students might be hesitant to voice their opinions, pointing to a need for fostering more inclusive participation. Meanwhile, 65% of students feel their contributions are valued by peers (mean 3.82), but maintaining consistent feedback and recognition is essential to sustaining this sense of value.

Table 1.2. *Mastery of Content*

Item No.	*Strongly Disagree (1)*		*Disagree (2)*		*Neutral (3)*		*Agree (4)*		*Strongly Agree (5)*		*Mean score and quantitative description*
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	
I can understand the course content better during collaborative learning.	1	1.67	2	3.33	23	38.33	20	33.33	14	23.33	3.73 (Agree)
I am more motivated to master the content when I work with others.	0	0.00	6	10.00	15	25.00	23	38.33	15	25.00	3.73 (Agree)
I can easily identify gaps in my knowledge during collaborative work.	1	1.67	5	8.33	11	18.33	29	48.33	14	23.33	3.83 (Agree)
I believe that critical thinking about the subject matter is enhanced during group discussions.	1	1.67	3	5.00	12	20.00	23	38.33	21	35.00	4.00 (Agree)
I can easily understand the ideas shared by my classmates compared to my teacher.	2	3.33	4	6.67	25	41.67	12	20.00	17	28.33	3.63 (Agree)
								Mean			3.78 (Agree)

Legend: 1.00-1.80 - Strongly Disagree | 1.81-2.60 - Disagree | 2.61-3.40 - Neutral | 3.41-4.20 - Agree | 4.21-5.00 - Strongly Agree

The data indicates that learners have a positive experience with collaborative learning as an approach to mastering course content, with an overall mean score of 3.78, reflecting agreement. The statement "I can understand the course content better during collaborative learning" received a mean score of 3.73, with 56.66% of learners agreeing or strongly agreeing, showing that collaborative learning contributes to better content comprehension. Motivation to master content in collaborative settings also scores a mean of 3.73, with 63.33% of learners agreeing or strongly agreeing, suggesting that working with peers stimulates their desire to achieve a deeper understanding of the material.

The highest mean score, 4.00, comes from the belief that critical thinking is enhanced during group discussions, supported by 73.33% of learners agreeing or strongly agreeing. This highlights the value of group interactions in promoting analytical and evaluative skills. The ability to identify gaps in knowledge during collaborative work has a mean score of 3.83, with 71.66% of learners in agreement, indicating that peer collaboration aids in recognizing areas that require further study or clarification. Lastly, the statement about understanding ideas shared by classmates better than those from the teacher has a mean score of 3.63, with 48.33% agreeing or strongly agreeing, suggesting that while collaborative learning is beneficial, it may not fully replace traditional instruction but complements it by offering relatable perspectives.

Perceived benefits and challenges of collaborative learning in various SHS strands

Science, Technology, Engineering and Mathematics

A dominant theme in the responses is the perceived enhancement in performance and learning outcomes due to collaborative learning. Many respondents noted that working in groups enables the sharing of ideas, brainstorming, and filling knowledge gaps (R1, R6, R12, R14). This exchange of knowledge was seen as a way to better understand lessons and achieve higher scores on assessments and performance tasks (R11, R15). The collaborative environment fosters mutual learning, where students can learn from peers who have a more advanced understanding of the subject matter (R15). Additionally, students appreciated the increased quality of work produced through group efforts, as combining different ideas often results in a more comprehensive and presentable output (R2, R4, R18). This suggests that when group dynamics function well, students feel supported and can collectively achieve better academic results and enriched learning experiences (R19, R20).

Despite the benefits, several challenges were identified. A common issue mentioned was uneven participation, where some group members do not contribute equally or fail to take responsibility (R3, R5, R7). This lack of balanced involvement can create frustration and resentment among members who feel that the work distribution is unfair, potentially impacting the quality of the final product and the learning experience (R8, R17). Additionally, some students expressed a preference for individual work, either because they value independence or because they fear being negatively affected by uncooperative group members (R3, R8, R10, R16). These responses suggest that while collaborative learning can enhance understanding and scores, its success largely depends on the willingness and active participation of all group members.

Accountancy and Business Management

The analysis of the responses highlights several perceived benefits and challenges associated with collaborative learning in the Accountancy, Business, and Management (ABM) strand. Many respondents indicated that collaborative learning facilitates enhanced idea generation and learning, as working in groups allows students to pool ideas and skills, resulting in more creative and high-quality outputs. Respondents such as R1 and R14 emphasized that collaboration leads to broader perspectives and fosters connections, as noted by R17. Another notable benefit is academic support and improved performance; students such as R1, R6, and R15 observed that group work typically results in higher grades in performance tasks and assessments. This sentiment is echoed by R3, who appreciates the ability to rely on peers with more knowledge, and R12, who finds it helpful to understand tasks when initially unsure. Additionally, collaborative learning was viewed positively for fostering mutual assistance and knowledge sharing, with R2, R5, R7, and R18 highlighting the supportive environment where students help each other learn and improve, as mentioned by R4.

Skill development and task efficiency were also seen as advantages, with R8, R11, and R20 pointing out that group work promotes learning through shared efforts and results in tasks being completed more efficiently. P16 further noted that collaboration allows for equal contribution, which lightens the workload and encourages teamwork.

However, the data also revealed several challenges. Uneven participation emerged as a recurring concern, with respondents like R10, R13, and R21 expressing frustration over group members who do not actively contribute but still receive the same grades. This perceived unfairness can reduce the effectiveness of collaborative learning. The dependence on group composition was another issue, as highlighted by R9 and R19, who pointed out that the success of group work often depends on the willingness of members to engage and contribute their skills harmoniously. P10 mentioned that allowing students to form their own groups could help address this issue, as they prefer working with reliable peers. Additionally, R13 raised the concern of potential exploitation, where some students take advantage of the collaborative setup by relying on more diligent members to complete the work, contributing minimally themselves, which can lead to resentment and lower morale among active respondents.

Humanities and Social Sciences

There are various perceived benefits and challenges related to collaborative learning in the Humanities and Social Sciences (HUMSS)

strand. One of the most frequently mentioned benefits is the enhancement of understanding and idea generation. R1 expressed that understanding groupmates' explanations is often more effective than solely relying on the teacher's input. R2 and R3 highlighted the importance of collaborative brainstorming and feedback, with R3 noting that diverse minds working toward a common goal lead to more innovative ideas. This collective effort facilitates deeper comprehension of lessons, as mentioned by R6, and provides support in completing difficult tasks, according to R11.

Academic improvement is another significant benefit, as mentioned by R4, R5, and R12, who stated that working together helps achieve higher scores and improve academic performance. Collaborative learning also promotes the development of strengths and the identification of weaknesses, contributing to better performance in group activities, as noted by R5. R10 emphasized that collaborative learning allows the incorporation of multiple intelligences and insights, which can hone individual skills and leverage different expertise for more comprehensive outcomes.

Motivation and comfort were also cited as benefits. R13 mentioned that collaborative learning can increase motivation and create a more comfortable learning environment, which encourages active participation and engagement. R8 and R9 added that group work is beneficial as long as all members contribute equally, which helps ensure a high-quality output and lightens the workload.

However, challenges were also identified. One major concern is the issue of unequal participation. R7 pointed out that some students may depend on others to complete tasks, which can lead to imbalances in workload and participation. This concern is echoed by R8, who noted that the benefits are contingent on every member fulfilling their role. Additionally, R9 and R14 suggested that the success of group work depends on group composition, and students may benefit more when grouped according to individual needs and compatibility.

Conclusions

Based on the results, it is shown that collaborative learning activities are widely perceived as a valuable and effective instructional approach by both teachers and students. The result of the study reveals that collaborative learning activities improve learners' participation in classroom interaction and improve their learning. Additionally, it is also shown that the Sciences, Technology, Engineering, and Mathematics (STEM) strand learners are more engaged and perceptive than other strands when teachers use collaborative learning activities. Overall, the finding shows that using collaborative learning is an effective pedagogical approach that helps learners and promotes interaction and substantial learning.

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