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A Case Study on The Implementation of Collaborative Learning in The Malaysian Lower Secondary Classroom

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Abstract

Collaborative learning is a highly effective approach that can yield numerous benefits for students, such as enhanced learning outcomes, improved communication skills, increased motivation, and better preparation for the demands of the workplace. The study aims to investigate the effectiveness of collaborative learning in the classroom and the factors that affect students' participation in collaborative learning activities in Malaysian secondary school. Data were collected using qualitative methods, including group observation and semi-structured interviews. The results indicated that most students had positive perceptions towards collaborative learning in the classroom and agreed that collaborative learning helps them in the achievement of learning goals if certain criteria were met. These included the role of the teacher and the role of the group members. The role of the teacher was perceived as crucial in providing direction and guidance for the collaborative activities to ensure successful learning outcomes. Participants felt that better outcomes would also result from collaborative learning if the group could choose its own members. Reasons that hindered students' active participation or caused reluctance towards collaborative learning were their own self-image and perceptions of their own ability. Personality clashes, lack of cooperation among group members and unclear instructions or lack of guidance from the teacher were also stated as obstacles towards a successful collaborative learning experience.

Keywords: Collaborative Learning, Self-Image, Learning Outcomes, Lower Secondary Classroom

Introduction

Broadly defined, collaborative learning is an instructional approach where students work together in small groups to achieve shared learning goals. In recent years, this approach has gained popularity as it has been found to be effective in improving student engagement, motivation, academic achievement, and social skills (Laal & Laal, 2012). Educational research has shown that collaborative learning is also an effective teaching method as it actively involves students in the learning process (Cañabate et al., 2020; Melzner et al., 2020; Pérez Poch et al., 2019). Studies have also demonstrated the positive impact of collaborative

learning on students' satisfaction with their education, Subsequently leading to improved performance and better grades (Salam & Farooq, 2020; Qureshi et al., 2021). When properly implemented and monitored, collaborative learning has numerous benefits for students' learning experiences. This approach enables students to develop critical thinking, cooperation, communication, and other essential skills while learning the course material selected by their teacher (Hursen, 2021)

Johnson and Johnson (1975) were among the first to study the effectiveness of collaborative learning in the classroom. They found that students who worked collaboratively had higher levels of academic achievement, greater retention of information, and more positive attitudes towards learning. Slavin (1996) conducted a meta-analysis of studies on cooperative learning and found that it had a positive effect on academic achievement across all subject areas.

In recent years, technology has been increasingly used in collaborative learning Salam and Farooq (2020) found that online collaborative learning improved student engagement, participation, and satisfaction. Similarly, Cheng and Chou (2011) found that the use of wikis in collaborative learning improved students' critical thinking and problem-solving skills. Collaborative learning has also been found to have a positive impact on social skills. Roseth et al. (2008) found that collaborative learning increased social interaction among students and improved their ability to work effectively in groups. In addition, Hänze and Berger (2007) found that collaborative learning improved students' communication skills and their ability to resolve conflicts.

Some studies have, however, reported mixed results. Gokhale (1995) found that while students working collaboratively had better problem-solving skills, there was no significant difference in their achievement compared to students working individually. Similarly, a meta-analysis by Radkowitsch et al (2020) found that the effectiveness of collaborative learning depended on the quality of the collaboration and the task being performed. It's also important to note that collaborative learning may not be the most effective method for every student and every learning situation. Some students may not participate actively during group activities or make significant contributions to the group task but depend completely on their peers during collaborative learning. Others may actually perform better in a structured or individual setting, where they can work at their own pace and receive direct feedback from the teacher. While collaborative learning has been known to enable the exchange of diverse perspectives, fosters social and communication skills, and promotes teamwork and problem-solving abilities, the effectiveness of collaborative learning ultimately also depends on the teacher's ability to effectively structure and facilitate the group process, to ensure that each student can contribute and benefit from the experience.

In their study on classroom participation of Malaysian undergraduates Mustapha and Abd Rahman (2011) found that Asian students tend to be passive in the classroom. According to Schnitzler et al (2021), involvement patterns of students can fluctuate and shift from highly engaged to minimally engaged over time. It is also crucial to be aware of potential challenges, such as unequal participation, social dynamics, and conflicts (Mustapha et al., 2010) that may arise in group work. When structured and facilitated properly, group work can be valuable for promoting collaboration, problem- solving, and critical thinking skills and reinforcing academic learning. Teachers can assign different roles to students, such as leader, researcher or presenter, to encourage each student to contribute and develop important skills.

Backer (2018) found that taking into account some unique considerations, collaborative learning can offer similar benefits for secondary school students as it does for other students. Secondary students are typically more mature and better equipped to handle the

responsibilities and challenges of working in groups, which can lead to more productive and effective collaboration. Therefore, investigating the benefits of collaborative learning and factors affecting students' inactive participation will provide useful insights into this matter and raise awareness among educators to enhance the quality of classroom learning. To ensure an effective teaching and learning process, educators need to understand the impact of each strategy, approach or method that they implement in their classroom. Thus, educators must recognize the impact of their teaching methods and be mindful of students' perspectives to design effective instructional strategies and improve learning outcomes (Vuopala, 2011).

In conclusion, collaborative learning has been shown to have a positive impact on student learning, particularly in terms of academic achievement and social skills. However, the effectiveness of collaborative learning depends on several factors, including the quality of the collaboration and the task being performed. As such, further research is needed especially in the Malaysian context to fully understand the benefits and limitations of collaborative learning in the classroom and to identify factors that impact students' participation in collaborative learning environments in Malaysia. By understanding why some students are not participating, teachers can better support them in the future.

Research Objective

This study will examine the effectiveness of collaborative learning as a teaching method in the classroom and investigate the factors that influence student participation in collaborative activities. The aim is to understand why some students may not actively participate in group learning, and how this may impact their academic performance. The objectives of this study are.

1. To investigate the effectiveness of collaborative learning in the classroom.
2. To study the factors that affect students' participation during collaborative learning.

Research Questions

RQ 1 Does collaborative learning help to improve students' performance in the classroom?
RQ 2 Why are some students not participating in collaborative learning?

Significance of the Study

As collaborative learning can bring many advantages to the classroom, the findings of this case study could provide some useful insights for teachers in the future when planning and implementing collaborative learning in their teaching and learning process. By understanding the various positive impacts collaborative learning can bring into the classroom and the reasons as to why some students are inactive when it comes to working with others could help modify and improve the way how collaborative learning is being incorporated in the classroom.

Literature Review

Collaborative Learning

Traditional learning often involves students passively memorizing information from textbooks and blindly accepting the knowledge imparted by their teachers, as the educational model is teacher-centered and operates on a banking approach (Rugut & Osman, 2013). On the other hand, collaborative learning encourages critical thinking and provides students with the opportunity to work together as a community towards a shared goal (Laal & Laal, 2012). Unlike

traditional learning, where students work and learn individually, collaborative learning fosters a sense of community in the classroom.

In the present educational landscape, learner- and learning-centered approaches have gained prominence, with a focus on developing students' critical thinking, creativity, collaboration, and communication skills (Ravinder Kumar, 2017; Top Hat, 2020). Collaborative learning is one approach that is widely adopted to help students develop these skills. It involves students working in groups to achieve a common outcome or to complete different tasks that contribute to that outcome (Laal & Laal, 2012; Percipio Global Ltd., 2022). The Gašević et al., (2019) lists several approaches that can be used in collaborative learning activities. However, teachers may have different approaches and it is important to plan the corresponding activities carefully to ensure their effectiveness and the benefits they provide to students.

Collaborative learning has been seen as a valuable approach to education, as it not only allows students to learn from their peers, but also enhances their critical thinking, creativity, and communication skills, which are important for 21st-century learning. The teaching and learning transformation center list several approaches that can be used in collaborative learning, including think-pair-share, problem-based learning, guided design, case studies, simulations, peer teaching, small group discussion, peer editing, and Jigsaw puzzle. Collaborative learning is different from traditional learning, which tends to be more teacher-centered and focused on rote memorization. Today, there is a shift towards learner-centered and learning-centered strategies, and collaborative learning can play a vital role in this change. However, it is important to be mindful of potential challenges, such as unequal participation and conflicts, that can arise when working in groups., Gašević et al.,(2019) has listed several approaches that can be used for collaborative learning such as think- pair-share, problem-based learning (PBL), guided design, case studies, simulations, peer teaching, small group discussion and peer editing.

Collaborative Learning and Students' Performance

Engagement in the classroom is a key factor in determining student performance. Cheng et al (2021) found that students participating in collaborative learning tend to be more engaged in discussions, engage in critical thinking, and retain information better compared to individual learning. According to Ravinder Kumar (2017), citing Keeler & Anson (1995), cooperative learning has been shown to greatly improve academic performance among students. Research suggests that a cooperative and engaging classroom setting can enhance students' metacognition, social skills, and cognitive performance (Paris & Winograd, 1990, as cited in Ravinder Kumar, 2017). Collaborative activities in the classroom also help students develop their understanding by allowing them to articulate and refine their knowledge (Van Boxtel et al., 2000, as cited in Ravinder Kumar, 2017).

In a study done by Backer et al (2018) more than 70% of students showed a positive perception towards collaborative learning in the classroom as they could accept other students' comments in the class The collaborative classroom activities helped in information retention, clarified their understanding of a topic and provided them with a deeper understanding of the topic. This is also supported by Sulaiman & Shahrill (2015), from their research, when they discovered that collaborative learning demonstrated positive impacts on students' performance where students are more engaged in learning activities while being able to develop teamwork skills. Collaborative learning is an essential approach in the 21st-century modern-day classroom and has the potential to prepare students for the challenges they may face in the future.

Laal and Ghodsi (2012) hold the view that collaborative learning can have a positive impact on students' social, psychological, and academic development. By working in groups, students have the opportunity to learn about diversity and create a sense of community. Collaborative learning also provides students with a platform to develop their social interaction skills, work cooperatively instead of competing, and build self-esteem (Cohen & Cohen, 1991).

Other benefits of collaborative learning cited by Burke (2011) from Beebe and Masterson (2003) include the fostering of idea-sharing leading to the gathering of more information especially when working on challenging assignments. Group work in a collaborative setting can show progress as a group, as demonstrated by Jansen (2014). Collaborative learning has also been found to promote creative and critical thinking, because students approach problems from different angles. (Jansen, 2012). When group member shares their understanding of a topic, information retention is improved. This is supported by Van Boxtel et al (2000), as cited in Ravinder Kumar (2017), who found that collaborative classroom activities help students identify justifications for their understanding and refine and restructure their knowledge.

Apart from that collaborative learning has been known to provide students with a sense of satisfaction as they are involved in decision-making and problem-solving. This helps to increase students' confidence and interest in challenging subjects, leading to improved academic performance. A greater sense of community among students is also created as as they gain a better understanding of how others see them. This helps students evaluate their interpersonal skills, as noted by (Leon & Castro, 2016). Thus, students' interpersonal skillsare strengthened and this prepares them for future careers which require teamwork (Jansen, 2012; Turner et al., 2014).

In summary, studies have found that collaborative learning provides several benefits for students. It encourages sharing of ideas, promotes creative and critical thinking, improves information retention, gives students the opportunity to participate in decision-making and problem-solving, boosts students' comprehension of each other, and enhances overall learning and interpersonal skills. Collaborative learning makes the learning journey more manageable and helps students to maintain their motivation and confidence in their studies.

Obstacles to collaborative learning

Not all students report a positive experience with collaborative learning, as shown by a study by Vuopala (2011), which identified three main categories of factors that can prevent students from participating in collaborative learning namely individual factors, group factors and environmental factors.

For individual factors, the study participants reported a lack of study skills, such as the ability to organize and absorb new information, to memorize it, and to prepare for assessments. Additionally, students also face challenges with motivation and time constraints. These individual factors then impacted group factors. Additionally, clashes in personalities led to problems during collaborative learning, causing inactive participation from some students (Appavoo et al., 2018).

The group factors referred to low participation from group members and dependence on others to complete the work (Burke, 2011). This occurred when students with higher academic performance understood the benefits of group work, while those with lower performance viewed it as time-consuming and of limited cognitive benefit (Chang & Brickman, 2018). According to the study, some students had a negative perception of group work, relied on their group for a good grade, and increased the workload for their group members. In addition, a negative group atmosphere can also hinder collaborative learning, as noted by

(Vuopala, 2011). Burke (2011) explains that this can be caused by individual domination, leading to feelings of alienation and low motivation among group members.

Furthermore, the distribution of heterogeneous groups can also have negative impacts on collaboration, as some students may struggle to keep pace with the rest of the group and lose interest (Llego, 2022). Negative attitudes among classmates can also affect participation and engagement in the classroom (Mustapha et al., 2010). Therefore, it is crucial for teachers to create an inclusive and engaging environment by considering these factors and delivering instructions in a fun and engaging manner that supports student participation and addresses their emotional needs.

The final category of factors that hinder collaborative learning is environmental factors. These include minimal support from teachers, limited access to communication tools, and time constraints faced by each member, which slow down the progress of collaborative learning (Vuopala, 2011). Research by Mustapha et al (2010) found that student- teacher rapport, student interaction with classmates, the teacher's teaching style, the physical and emotional well-being of the student, and the classroom setting also play important roles. A supportive and positive teacher can create a welcoming atmosphere in the class and encourage students to actively participate. Conversely, an angry and negative teacher can discourage students and decrease their interest in class activities. Classmates also play a significant role in determining student participation, with supportive and familiar classmates helping to foster an inclusive environment and encourage active participation.

Theoretical Framework

The theoretical framework of this study is based on the social constructivist theory of learning by Vygotsky, which examines the interrelationship between social interaction and individual learning (Appavoo, 2018). According to Vygotsky (1978), learning is inextricably linked to a social context and students can learn from each other through social interaction. Vygotsky's work emphasized that higher mental functions have their roots in social activity, suggesting that mental development occurs first at the social level and then at the individual level (Hausfather, 1996). Collaborative learning provides students with the opportunity to work together, co-create understanding, and develop higher-level thinking skills compared to individual learning (Appavoo, 2018).

The researchers of this study based their methodology on the social constructivist theory of learning, as proposed by Vygotsky. This theory focuses on the relationship between social interaction and individual learning and asserts that learning cannot be separated from a social context (Vygotsky, 1978). In line with Vygotsky's belief that mental development occurs first on the social level and then on the individual level, the researchers aimed to examine the role of collaborative learning in enhancing students' participation in the classroom (Hausfather, 1996). The interview questions and conduct observations were developed based on this theory, with the aim of understanding the various factors that contribute to students' active or inactive participation in collaborative learning.

Conceptual Framework

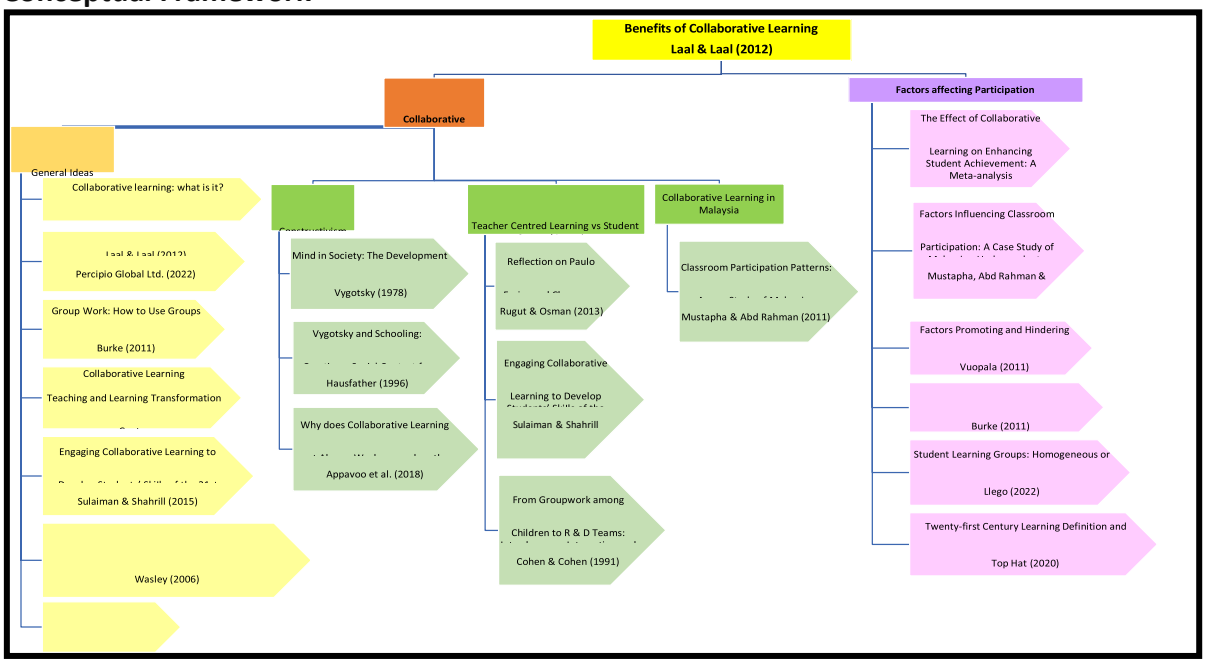

Figure1. Conceptual Framework

Methodology

Participants & Data Collection Procedures

The qualitative research method was chosen for this case study as it provides deeper insights into the research. To ensure no data was lost during the interview, an audio recorder was used, and the recording was transcribed using online software and then manually checked by the researchers. Additionally, data recorded from observations during collaborative learning are also included in the findings.

The sampling for the study was purposeful with six students from a lower secondary sub-urban Malaysian school as participants. Participants were briefed about the study and consent was obtained from the school authorities, class teachers and the participant themselves. Participants were observed during classroom collaborative learning activities, and follow-up semi-structured interviews were conducted on a separate day. The researchers collected both data for the study through the observations and interviews.

This research used several types of instruments for data collection purposes: The observations were performed during collaborative learning activities in a Geography lessons, and notes were immediately written down to ensure the accuracy of the data and that nothing is lost. The Geography classroom was chosen due to the presence of frequent collaborative activities during the lessons as compared with other subjects taught in the school. Code names S1,S2,S3,S4,S5 and S6 were assigned to the six participating students to ensure anonymity.

Interview forms consisting of questions about the interviewees' background, students' perception of collaborative learning in the classroom, and factors that affect their participation during collaborative learning were used during the interviews. The set of interview questions were created and reviewed by the researchers. The school principal, parents and students were informed of the observations and interview questions and the researchers obtained their consent before conducting the interviews. The interviews were conducted individually using open-ended questions to gather a wide range of responses from participants.

Each interview session was recorded, transcribed, and analysed individually using transcribing software and edited by all researchers to increase the validity and comprehension of the data. These recorded interviews were transcribed and converted into text using Trint online transcription software. Manual correction of the transcription was done, by running the audio against the text transcription, to further ensure that no important information is left out from the actual conversations.

Procedure

To achieve the research objective of the study, applied a qualitative research method with classroom observation and interviews on 6 student participants.

Classroom Observations

The classroom observations on the six participants were carried out during two collaborative learning activities in their Geography lessons. The observations were video recorded and observation notes were taken during the observations to further ensure the accuracy of the data and that nothing was lost. The information gathered from the notes was checked against the video recordings, analyzed and later compared with findings from the interviews.

The geography lessons observed lasted 60 minutes. Students were seated in their respective groups in the classroom throughout the lessons. For the first 15-20 minutes of the lesson students listened to the teacher's exposition of the topic. During the second half of the lesson, tasks were given to students in their respective groups which required them to work collaboratively. The tasks involved group discussion to complete questions or tasks on the given topic.

During the first observation, the task required group discussion to answer a question which included having to refer to the world atlas to get the longitude and latitude of glaciers as part of the task. While students S2, S3, S5 and S6 were actively involved in the discussion S1 and S4 were mostly quiet and mostly just listened to the discussion.

After 15 minutes of discussion, S5 took the initiative to get the world atlas from the office and S2, S3, and S6, surrounded S5 to look at the atlas. S1 and S4 joined the group a little bit later but moved back and forth from their seats and the group to get the answers. S5 then sought the help from the teacher, to explain on how to use the atlas and how to read the longitude and the latitude. During the explanation, S2, S3 and S5 paid attention and they were able to find the coordinates for some glaciers. S2 and S3 later assisted S1, and S6 to find the coordinates from the atlas while S4 observed them and jotted down the coordinates in her book.

During the second observation students had to work to prepare a group presentation on the given topic. During the first 15 minutes, the teacher explained the task and gave them the guidelines. Students were allowed a choice between two topics for presentation. They had to create a poster and give an oral presentation based on the chosen topic.

For the first few minutes of the group discussion, S1,S2, S3 and S5 chose Topic 1 and S4 and S6 chose Topic 2. After discussing it further the group decided to go with Topic 1 as this was chosen by the majority of the members. S1 and S2 volunteered to search for the content from the school's computer lab while S3,S5 and S6 said they would refer to the Geography library resources which were in the same room.. S6 did not join either group but stayed sitting in her position for a while until asked by the teacher to join S1 and S2. She joined the group but was silent for about 10 minutes before she started showing interest in what S1 and S2 were doing.

After half an hour all group members sat together to create the poster using the content they had gathered. All members were involved at this time.
When it was time for the presentation, each group member was involved. S2.S3 and S5 gave the oral presentation while S1, S4 and S6 held up the charts and posters they had created. The teacher said that it was a good presentation, and the group members were visibly pleased.
The two observations indicate that even though there were group members who were not equally ready to participate in the collaborative learning, they eventually managed to collaborate successfully towards the completion of the tasks.

Interviews

Semi-structured interviews comprising questions related to the research questions were conducted and students' responses were recorded and collected for analysis. Where necessary probes were used to elicit more in-depth elaborations of their initial responses. Participants were also asked questions based on reflection of their feelings during collaborative tasks such as the one in the observation. The interviews were also conducted within 24 hours of the observations to ensure data was not lost due to time or memory lapse between observation and interviews. The interviews were recorded and then transcribed and converted into text using Trint online transcription software.

Results and Discussion

Data from observation notes and interviews were read a few times and further reflections and notes were added by the researcher during the reading. Data analysis in this study was an on-going process. The emergence of specific units or segments of information was recorded and reduced to themes relevant to the research questions. The data was also examined for clustering of units. Analytic coding was used to develop themes as categories and subtopics emerge.
Based on the emerging themes, a thick description was written, and a comparison was done between all parts of the study to confirm the findings and to answer the research questions.

Does Collaborative Learning Help to Improve Students' Performance in the Classroom?

Referring to the notes taken during observation, it was clear that collaborative learning was beneficial to the completion of the assignment given to the group of participants. Even if not all the students displayed an equal amount of participation or enthusiasm in the beginning of the task, by the end of the task they were all engaged and managed to get the assignment completed. There was also noticeable peer scaffolding as the more involved participants took the lead and provided the needed guidance to their less engaged members of the group which eventually led to a successful group outcome.
During the interviews, questions were asked which focused on the participants' own understanding and perspectives towards collaborative learning and how it affected their own learning outcomes. Reference was also made to the specific observed collaborative learning task in the geography class.

The Following main Themes Emerged during Thematic Analysis on the Data

Views on Collaborative Learning

As an introduction to collaborative learning, participants were asked "What do you understand about collaborative learning?" before proceeding with other questions. The purpose of this question was to ensure that students understood collaborative learning before

moving on to more elaborate questions. As defined earlier, collaborative learning is a method of teaching and learning which involves groups of students cooperating to deal with a problem, finish a task, or produce something (Laal & Laal, 2012). The responses obtained from the answers demonstrates that the participants had a good understanding of what collaborative learning is. All six participants described collaborative learning to mean students or pupils working together, learning in groups or 'classmates working together for projects or homework.' (S3) S5 and S6 described CL as 'Learning together with other people to understand better' and S3 and S4 included the teacher in their description of Collaborative learning.

A way of learning in groups with teacher helping S3

Learning with your friends and teachers S4

When asked examples of preferred collaborative learning activities done in the classroom, four participants mentioned group projects, group discussions, group quizzes, and group exercises (S1, S2, S3, S6). Two participants said they liked to work in groups but could not provide any preferred group activity (S4, S5).

Role of Collaborative Learning in Understanding of a Topic

Diving into the effectiveness of collaborative learning, researchers asked students if collaborative learning helped them understand a topic better. 2 participants believed collaborative learning was definitely helpful, (S2,S6) 2 participants believed collaborative learning was less helpful compared to working alone (S4,S5)and 2 participants mentioned that it depends on certain other factors. (S1,S3)

S2 believed the effectiveness of collaborative learning was dependent on the people grouped with her; she recounted experiences where her group mates were acting "almighty, have an attitude, or are free riders." S3 also believed that the effectiveness of collaborative learning is dependent on the subject and type of task. Certain subjects were more suited for collaborative learning and if he needed to work in a group, he already knows who he wants to work with.

S4 and S5 were very clear about their preference to work on their own; S5 mentioned that collaborative learning may not be as effective because he gets distracted easily when he is working with others. However, S2 and S6 believe that collaborative learning is effective for their understanding or classroom performance because they could share and learn from different opinions and have groupmates to rely on for explanations if needed.

On the whole four out of six participants agreed that collaborative learning helped them in their study.

Information can be shared among group members, and we can rely on other members to help our own understanding. (S2) During discussions I also hear many new ideas from the others in the group (S6).

Role of Teammates and Impact on Learning Outcomes

Participants were also asked if they thought working individually or as a group could help them score better marks. S4 strongly disagreed with working with people and believed that she could score better when she was working individually.

Working as a group, sometimes it's difficult to meet in a place like maybe one of us can go. So, you have one material missing out and it would make things difficult. Working individually is easier because I have my own checklist and materials and I can even do it at home too, that's the best part. S4

The other five participants said scoring good grades while working as a group was dependent on factors such as good and capable teammates, if teammates could help them with their weaknesses, and the type of group work. For example, S2 believed that working as a group allowed him to score better grades.

Because everyone can put in their strengths and come up with the best project. But it also depends on the project. I am not really good at drawing and stuff, so I prefer groups because everybody can split up. Like one person is good at drawing, one person is good at explanation, another is good at decorating maybe, and getting resources. S2

S3 admitted that because he was aware of his strengths and weaknesses, this allowed him to seek help or help out in areas where he is good. On the other hand, S5 was concerned that the group mates would not be able to explain and would not help his understanding; this would result in lower grades.

If my teammates cannot help me, then I will be the one always helping them and in the end my mark will go down S5.

While there was majority feeling of collaborative learning having a positive impact on their learning outcomes and scores, there was also a measure of apprehension in the group on unreliable group mates, free riders and the possibility of having to shoulder more than their fair share of the group workload.

Role of Teacher

The Role of the Teacher during Collaborative Learning also Emerged as a Theme during the Analysis

Four participants strongly believed that teachers are a contributing factor to the effectiveness of collaborative learning. S1, S3, S4, S5, and S6 believe that their teachers acted as a facilitator and manager and provided support and explanations when needed. They believed that the teacher was also the one who stepped in to ensure that all group members were contributing during the activities.

This is what I experienced. So, there's like at least five people that works together and then if one of them is like a free rider and doesn't do anything. Either one of the members will complain to the teacher or the leader will complain to a teacher, and then in the end, teacher would like to find a way to make the free rider do something." S5

S5 believed that teachers should also group students based on characteristics or personalities to ensure the group is able to work efficiently together. S5 mentioned "So if the certain group members, before the group, like that talk a lot and then got put in the same group, I think they will talk a lot and not do their work and get distracted. So teacher has to, how to say it...Pair up people who do well together and not talk to each other much"

However, one participant believed that his teacher was the factor in the ineffective collaborative learning process.

There are like two or three teachers who always give us projects and homework. For example, projects make us choose our teammates. So of course, I chose my friends, and then we go to each other's house and make the project. But when we come back to school, when it's the presentation day and the teacher either is absent or he postpones it until next week or something and in the end, he canceled it. We feel frustrated because we spent so much time and effort on the project and the teacher just cancelled it. S 6

Generally, all the participants agreed that teachers play an important role especially in deciding the activities and group members to ensure the effectiveness of collaborative learning in the classroom. The teacher was also pivotal in ensuring all group members

contributed towards the task and to follow through on the initial plans. The teacher should also serve as a reference point when students needed any further guidance during the collaborative learning activities without being overly intrusive.

Reasons for not Participating in Collaborative Learning

Self-Image and Personality Clash

Other themes that emerged cantered around factors that could hinder participation in collaborative learning. Among these were personality type.

Two of the reasons that hinder the participation in group work among the students provided by S1 was having a shy personality and when their ideas are rejected by the group members. S4 also mentioned shyness and being easily distracted by others when working as a group and this could be one of the reasons why working individually is better because there are fewer distractions. Some of the participants agreed that there are students who do not prefer working in a group because of their personality. It is either they are shy, lazy or just prefer to do the work on their own. Two of them have the same point of view where some students can't contribute much to the group which stops them from actively participating in group work. One of the participants prefers to choose his own group members so that he will have the motivation to work in a group,

The responses seem to point towards personality type being a significant factor in students level of participation in collaborative learning activities. While those who were the more shy or introverted type found it difficult to engage in collaborative learning activities, self-image was also a deterrent. Students who valued their own potential to contribute to the group also preferred to work independently as they did not want to be seen as 'weak' members of the group. On the other hand, those who perceived themselves as 'stronger' preferred to make their own choices of group members based on their own evaluation of potential contribution to the group.

Lack of Cooperation

Another personality-related theme that emerged related to the clash of personalities when working in a team. At times it was difficult for the group to reach a decision on tasks due to too many differences of opinion and strong personalities who insisted on doing things in their own way. This made it difficult for the group to progress and often impacted the end result negatively. This was illustrated in comments made by S4 and S5.

Everyone has their own opinion. No one wants to give in. Everyone thinks theirs is the best idea. Then how to proceed. Might as well just stop and work alone S4

I don't want to be in a group where everyone thinks they are the best and they don't listen to others' opinions. S5

Participants also talked about situations where there were one or two members who assumed leadership and 'bossed' the others around, making them do the less attractive parts of the group projects. Other issues that hindered collaborative learning were when certain group members took the credit for the entire group's work.

We all worked so hard, all of us but in the end during presentation time, it was only she who wanted to present alone. And the teacher thought that she had done most of the work. It was very unfair to the rest of us. S3

Unclear Objectives

The participants also mentioned the lack of defined objectives or proper instructions as another reason that hindered them from successful collaborative learning experiences.

When the teacher's instructions were not clear and when roles of the group members were not set clearly either by the teacher or by themselves, it often led to some confusion in the team. If this was not quickly sorted out it impeded the team's progress and, in some cases, caused the entire group to disintegrate thus leading to a non-fulfilment of the collaborative learning objectives.

We were not told properly what was expected. The teacher just gave us the question and left us like that. So, we didn't know whether she wanted four different answers or just one group answer. S2

The teacher should have given us our roles in the group. Who should do what And how much time we have, We were not told anything so in the end we each did our own thing. S1

Although there could have been a deliberate intention on the part of the teacher to allow group members autonomy to make decisions on roles, this did not sit well with the students who preferred to be given specific roles or duties within the group and clear expectations for the finished tasks.

Conclusion

From the observation and interviews that were done, all participants seemed to have a broad understanding of collaborative learning which matched earlier definitions by Laal & Laal, 2012.

The main objectives of the study were to find out whether collaborative learning was effective in the classroom and the reasons some students did not actively participate during collaborative learning activities. This was done as a case study on six participants who were observed during collaborative learning activities in their classroom and then interviewed for their views and reflections on collaborative learning.

The observations showed a clear demarcation between those who actively participated in the Collaborative learning from the very beginning (P2,P3,P5,P6) and those who were passive onlookers at first but towards the end began to be involved in the group tasks even to the point of contributing. (P1,P4) The shift in attitude was largely brought about by the assistance shown by the more active members in providing guidance and encouragement to the less active. This clearly aligns with the Vygotsky scaffolding principle which provides the framework for collaborative learning. The successful outcome of the assigned tasks and the learning objectives also concur with Vygotsky's social constructivist theory. (1978) and the studies by Appavoo (2018) on the merits of collaborative learning being beneficial towards learning outcomes.

During the interview sessions, the same participants who had been active from an early stage during the classroom collaborative learning activities were also more positive in their responses towards how collaborative learning helped them to understand a topic better and thus be able to achieve the learning objectives. These also affirm previous studies by Ravinder Kumar (2017); Sulaiman & Shahrill (2015), who found positive impacts on students learning through collaborative activities. However, three out of these participants were also quick to point out other factors that either aided or impeded their general learning success during these collaborative activities. These were the role of the teacher and the role of the team-mates.

Having a teacher who acted as a facilitator and provided guidance when needed was mentioned by almost every participant as an essential factor towards successful collaborative learning. Apart from that, it was also important for the teacher to provide very clear instructions on the task assigned to the group and to ensure that group members were carefully selected. Teammates or group members were also another important factor because if the success of the group according to all participants, including those who were not very active in the preliminary observations, depended on each member contributing their part and not being mere 'passengers' in the group. Despite being active group members and providing a favourable response towards collaborative learning, two participants (P2 and P3) said they actually preferred to work individually because they felt they could score better marks on their own as opposed to when working in a group. This response was also tied to some experiences where they had failed to receive good guidance from the teacher and had group members who did not contribute. When asked if they would consider choosing collaborative learning in situations where they received good instructions and were in teams where everyone contributed, they were quick to say yes. According to them the ideal situation would have been where students were always free to choose their own team members.

The main reasons that emerged as reasons for reluctance to participate in collaborative learning were personality types, lack of cooperation and unclear objectives for the assigned tasks. P1 and P4 who had also been initially passive during the observation opened up about their own 'shy' personalities which they admitted made them hesitate to present their views to the group for fear of their ideas being rejected. Personality clashes between members who were too opinionated and unable to defer to the majority in the group also featured as a possible obstacle towards successful collaborative learning outcomes. This factor has also been reported in the studies by (Appavoo et al., 2018; Llego, 2022). Finally, the lack of proper direction from the teacher was mentioned again almost by every participant as a major reason students did not always look forward to collaborative learning experiences.

In summary, the study showed that the general perceptions towards collaborative learning were positive or were perceived as beneficial if some factors were taken into consideration. These were the role of the teacher in providing good guidance towards the collaborative tasks, the opportunity for choosing own group members, and the role of each team member towards the success of the learning outcomes.

Recommendations

The present study focused on a small group of sub-urban lower secondary school students' experience with collaborative learning students on the implementation of collaborative learning in a classroom. For future research it is recommended that the study be performed using multiple groups and comparisons be made according to gender, age group and school type. As the teacher factor featured significantly in the present study, further research can be done on collaborative groups from different classes with different teachers leading. Teachers' perspectives on collaborative learning could also be a useful source of data in determining the effectiveness of collaborative learning and the way forward in schools using this method of teaching and learning.

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