Collaborative Learning: A Fundamental Method To Increase Students' Academic,

Social and Emotional Success

Taylor Carson

Abstract

Discovering ways to keep students engaged in academic content while also meeting their social and emotional needs can be an arduous task. Engaging students in content that contribute to high levels of academic and social success is an important role as an educator. Collaborative learning is a commonly used teaching strategy to engage students and their peers with academic content in the classroom. Collaborative learning allows students to socially engage with their peers while muddling through complex tasks. Many educators believe that collaborative learning environments heighten student engagement and allow for collective student accountability in their success. Collaborative learning plays a crucial part in contributing to student academic, social, and emotional success. This article discusses the different ways collaborative learning has shown to increase student academic, social, and emotional success, as well as the key factors that strengthen the effectiveness of collaborative learning. Incorporating collaborative learning effectively in the classroom will aid educators in fostering student success academically, socially, and emotionally.

Collaborative Learning: A Fundamental Method To Increase Student's Academic,

Social and Emotional Success

Collaborative learning is an alternative educational method to those of traditional, "sit and get" types of learning environments. Collaborative learning occurs when students are working cooperatively in small group settings to achieve a shared goal. This type of learning has been known to promote deeper thinking among students and their peers. Collaborative learning can look different based on the type of task students are working on. Examples of collaborative learning are think-pair-share, jigsaws, group task card activities, small group discussions, reciprocal teaching/flipped classrooms, group projects, etc.

Collaborative learning is a strategy I utilize often in my classroom. It is a way for students to collaborate and socialize with their peers through academic learning rather than receiving content through traditional teacher-based instruction. However, I have experienced times when collaborative learning environments have not been beneficial to student success. Oftentimes when students are working together in small groups, they tend to get off-task. Their work time turns into a social hour which is great for students to build positive relationships with one another; however, they are losing valuable class time. Another problem I have encountered with collaborative learning is students feeling like they do not have to accomplish their part because they have group members who will get it completed. Although there are many benefits to collaborative learning, there have been some deficits that I have seen in my classroom.

Because of the deficits, I have seen in my classroom, I want to research benefits as well as ways to increase the effectiveness of collaborative learning. Research has shown that there are many benefits to collaborative learning over traditional learning methods. Academic, social, and emotional achievement is something all educators desire for their students. This article addresses the impacts that collaborative learning environments have on student success not only academically but also socially and emotionally. Collaborative learning, like any teaching strategy, is something that has to be implemented effectively to lead to the success addressed above. When collaborative learning is not implemented correctly, it can lead to a loss of instructional time. There are important factors that lead to effective collaborative

learning that are addressed in this article. Factors such as student autonomy, group type and size, complexity and relevance of the task, and positive interdependence are important to take into consideration when incorporating collaborative learning in the classroom (Celik, 2019; Erdogan and Sengul, 2017; Margunayasa et al., 2018; Scager et al., 2016; Sumadi et al., 2017). When these factors are considered, collaborative learning can lead to academic, social, and emotional success. Because collaborative learning is a commonly used teaching and learning strategy, educators need to understand how to implement it effectively to ensure success in the classroom.

Review of Literature

Academic Achievement

As discussed above, research has indicated that students in collaborative learning settings have shown higher levels of academic achievement than those in traditional learning environments (Celik, 2019; Erdoğan & Şengül, 2017; Ghavifekr, 2020; Margunayasa et al., Olanrewaju, 2019; 2018; Royhana et al., 2021; Ryzin et al., 2020) In a study by Ghavifekr (2020), students agreed that collaborative learning environments strengthen their academic success. Collaborative learning is known by many educators to increase students' critical thinking skills. Critical thinking skills play a key role in student academic success (Rohana et al., 2021). Students who engage in higher-order thinking develop a better comprehension of the content which can lead to increased achievement in the classroom. In collaborative settings, students discuss content with their peers which allows them to see multiple perspectives. These perspectives reinforce critical thinking skills in the classroom. Students who participate in collaborative learning that is supported with metacognitive strategies have also shown positive effects on student academic achievement. The positive outcome is displayed in a study by Erdogan and Sengul (2017). This study demonstrated that students who work in collaborative settings supplemented with metacognitive strategies can understand the "why" behind many of the procedures in mathematics which leads to students developing a deeper understanding of content (Erdogan & Sengul, 2017).

Collaborative learning gives students the environment needed to peer coach. Not all students in a classroom are on the same ability level, and collaborative learning empowers higher achieving students to foster lower-achieving students' understanding of content. In a study to determine the impact of collaborative learning, "participants with low performance benefitted as well because they had their classmate's help and also because they had the chance to be successful in activities and evaluations, achievements that would have been impossible without help" (Vega and Hederich, 2015, p. 89). A classroom teacher can't help all of the students in the room, particularly in classrooms where there is a 1:30 ratio of teachers to students. Collaborative learning gives the more confident and high-achieving students the chance to help take on that challenge.

The research reveals that collaborative learning increases academic engagement for all students. Specifically, students of color have been shown to benefit from collaborative learning. A study was conducted by Ryzin et al. (2020) on the effects of collaborative learning for students of color. The results of the study showed that students of color benefit significantly from collaborative learning academically. The interaction among peers helps to break down barriers between students of color and students not of color (Ryzin et al., 2020). Additionally, collaborative learning environments are more engaging than traditional teaching methods for young adolescents (Ryzin & Roseth, 2021). As educators know, the more engaged a student is in the content the more content they are going to absorb.

Social and Emotional Success

Social skill development is a crucial role in schooling, especially for adolescents. Social success has been proven to be a positive outcome of collaborative learning. It is obvious that when students are allowed to work with their peers, they are going to use social and communication skills. In collaborative settings, students can share ideas and questions as well as engage in positive social interactions (Vega and Hederich, 2015**.** The more we engage our muscles the more they develop and strengthen. By engaging in socialization and discussion, they further develop those skills just like when we exercise and work out. Collaboration allows students to enhance peer relatedness. Peer relatedness is enhanced through the social aspect of collaborative learning. In a study by Ryzin and Roseth (2021), they discovered the social aspect of collaborative learning allows students to interact with one another and build positive relationships that might not have been built in traditional learning settings. Peer relatedness also has an impact on students' emotional needs. Students that build positive relationships with one another through collaboration can lean on each other in non-academic settings.

Emotional support for students is an important piece of an educator's responsibility. As students mature their emotional needs change. Students rely on educators and their peers for this need. Research indicates that collaborative learning environments help meet the emotional needs of students. Peer relatedness has been shown to reduce stress and anxiety for students. Students participating in a collaborative learning study found enjoyment when they worked in small groups (Ghavifekr, 2020).

Also, collaborative learning points to positively affecting a school climate which can diminish bullying. A study by Ryzin and Roseth was completed to determine the impact collaborative learning had on bullying. The results of the study provided that collaboration among peers can enhance peer relatedness and social skills for students which leads to the development of empathy towards peers (Ryzin & Roseth, 2019). By understanding a peer's emotions, students can empathize with them. This study suggested that empathy has a direct effect on bullying; therefore, collaborative learning indirectly lessens bullying in schools (Ryzin & Roseth, 2019). Another impact of collaborative learning on the emotional needs of students is the low-stakes environment it creates. When working in groups, a student does not feel all the pressure to complete a task successfully which can decrease their anxiety (Ghavifekr, 2020; Olanrewaju, 2019). By reducing anxiety students can perform better on tasks which also leads to higher achievement.

Effective Collaborative Learning Factors

Collaborative learning only leads to student academic achievement, social, and emotional success when it is implemented effectively. All of the studies discussed above were in academic settings where the educators were trained to incorporate collaborative learning with fidelity. Many factors contribute to effective collaborative learning. These factors include group type and size, student autonomy, complexity and relevance of tasks, and positive interdependence. To avoid deficits in collaborative learning environments as discussed earlier, these factors should be considered. An important factor to consider when using collaborative learning strategies is grouping. Being thoughtful in how students are grouped can make or break a task. For small group activities, groups of 3-4 were shown to be the most optimal (Scager et al., 2016). Group size can also help with the issue of free riders. Groups that are too large could easily allow for students to slip through the cracks and not participate. In Scager's et al. study, a student stated, "with four you are responsible for an important part of the process"(2016, p. 6). Size is not the only thing that must be considered when creating groups. Group types are a vital part of the group-making process. A study was completed by Sumadi et al. to determine if ability grouping leads to academic achievement. The study showed that homogenous and heterogenous grouping by ability both lead to individual academic achievement as well as social success (Sumandi et al.,2017). Students in another study expressed that working in groups with peers who think similarly would not create

engaging discussions, because it does not allow for students to hear other perspectives (Scager et al., 2016). Another study completed showed that grouping by sex affects the success of collaborative learning.

Groups with a good mix of males and females have been shown to provide a more diverse discussion (Margunayasa et al.,2018). All three studies conclude that grouping has a significant effect on academic and social success. It is commonly known that when students are given choice they are more likely to be engaged and take ownership of their learning. Student autonomy is a key factor that contributes to effective collaborative learning. Students want to feel that their opinions and thoughts are valued. When allowed to have a say in their learning, they feel more responsible and in charge of their learning. Collaborative learning environments lend themselves well to creating opportunities for student autonomy. In a study by Scager et al. (2016), the groups of students were allowed to choose their topic, and the students noted that it increased their motivation(Scager et al., 2016). Free riders can be an issue with collaborative learning; however, if students are given choice they will be more likely to put in the work and take ownership of the task. The type of task provided to a group of students can have an enormous impact on the success of collaborative learning. Game-based tasks were proven not to lead to high levels of academic achievement (Celik, 2019). To keep students engaged in the task at hand, it must be relevant and complex. A study indicated that tasks given to small groups need to be complex enough to require the participation and engagement of all learners. (Scager et al., 2016). By giving the students complex tasks, they will be compelled to engage in deep conversations that enhance their critical thinking skills leading to high academic achievement (Rohana et al. 2021). Relevance goes hand in hand with student choice and autonomy. When content is relevant to students, they are more likely to be engaged because they can make connections and feel that this is something they will use later on in life. Educators often get the question "How can I use this in the real world" from students. By making the collaborative tasks relevant, students feel the completion of the task serves as a reward. For example, students in a biology class were given a task to research a topic and write an article. The students in this class indicated the relevance of research in the real world felt like a reward for completing the task (Scager et al., 2016). If students can see how the tasks can help them in the real world, they will be more engaged in completing the tasks.

The most important factor of collaborative learning that leads to student academic and social achievement is positive interdependence (Scager et al., 2016). Collaborative learning environments where positive interdependence is established create balanced group member participation. Some students inevitably contribute more than others when working in groups; however, when positive interdependence is exhibited students are more empathetic towards their peers (Scager et al.,2016). When students feel a sense of positive interdependence in collaborative settings, they tend to be more understanding when all group members don't participate equally. Also, the establishment of positive interdependence in collaborative settings leads to cognitive development among students, because the students do not feel the weight

of the task on their shoulders (Margunayasa et al., 2018, p. 4). When students feel there is shared ownership, they can focus on engaging in purposeful discussion with their peers.

Discussion

Overall, research shows that cooperative/collaborative learning leads to student academic, social, and emotional success. Higher academic achievement can lead to less stress and emotional problems among students (Ryzin et al., 2020). Collaborative learning allows for peer coaching, promotive peer interactions, and higher-order thinking which all lead to academic and social success (Scager et al., 2016; Erdogan and Sengul, 2017). Because collaborative learning allows for group participation rather than

individual ownership, the environment becomes lower-stakes which is anxiety and stress-reducing for many students (Ghavifekr, 2020, p. 16). Peer coaching allows students on both ends to understand the content better. A student confirmed this when stating, "when I tried to explain the process to my teammates, I also learned the topic better" (Erdogan and Sengul, 2017, p. 283). Additionally, collaborative learning settings have been proven to increase engagement in tasks when implemented effectively. To avoid deficits such as free riders, distracted and off-task behavior, and inequitable group contribution certain factors discussed above need to be considered.

Implications for Educators

Collaborative learning has shown to be beneficial for young adolescents who need social and emotional support in school. This type of learning fosters a positive school climate through an increase in student empathy which leads to a decline of bullying in schools (Ryzin & Roseth, 2019). Additionally, collaboration promotes deep discussions that give students a greater understanding of academic content that may not be possible in traditional learning environments. To ensure collaborative learning is leading to student achievement both academically and socially, educators need to make sure group expectations are established and explicitly known by students. These expectations should consider the key factors that contribute to effective collaboration among students such as group size and type, student autonomy, relevance and complexity of tasks, and positive interdependence (Scager et al., 2016).

Evidence-Based Practices

Groups of three to four are ideal for collaborative settings because it ensures each student has a role (Scager et al., 2016). Also, educators should strategically group students to increase the effectiveness of collaboration. Mixed ability and gender groupings lead to extensive discussions and allow for peer coaching which engages students in deeper learning (Sumadi et al., 2017). Educators should also consider giving students choice in some parts of the task. When students have a say in their learning, they will feel more led to take ownership of their learning (Scager et al., 2016). As well as giving students choice within the tasks, educators should also make certain that the tasks are relevant and applicable to the real world. Students need to find meaning in the tasks to increase their engagement (Scager et al., 2016). It would also be a good idea to make students aware of the relevance of the task so they are not kept wondering. As an educator, I find myself incorporating collaborative tasks that do not challenge students enough. The tasks chosen must be complex enough to require full group participation and deep discussions (Scager et al., 2016). Lastly, positive interdependence plays a key role in the success of collaborative learning (Scager et al., 2016). Creating a positive and safe environment where students feel comfortable interacting and discussing ideas with their peers is a very important piece of the puzzle. If students do not feel comfortable sharing ideas with their peers, collaboration is a considerable waste. Because effective implementation of collaborative learning is so vital, schools must offer professional learning and training on the topic to ensure all their educators feel confident in their abilities to foster successful collaboration among students.

Conclusion

The purpose of this article was to identify the effects that collaborative learning has on student success. The research indicates that collaborative learning positively impacts student academic, social, and emotional success through peer relatedness, engagement, and higher-order thinking. Due to this conclusion, I plan to continue to incorporate ample opportunities for collaborative learning in my 8th-grade math classroom.

Areas for Future Research

Although the research gave multiple methods for educators to ensure the success of collaborative learning, I feel that there are still some possibilities for off-task behavior among students. This has shown to be a huge issue with collaboration in my classroom, and the research I found did not address the issue. Because of this, I would like to further research ways to decrease the likelihood of off-task behaviors in collaborative learning environments. I plan to continue to research ways to effectively implement collaborative learning in the classroom, as well as learn more ways to incorporate group work.

References

Çelik, Halil Coskun. (2020). The effect of modeling, collaborative and game-based learning on the geometry success of third-grade students. *Education and Information Technologies*, *25*(1), 449–469.

Erdoğan, F., & Sare Şengül. (2017). The effect of cooperative learning method enhanced with metacognitive strategies on students' metacognitive skills in math course. *Egitim Ve Bilim, 42*(192), 263-301.

Ghavifekr, S. (2020). Collaborative learning: a key to enhance students' social interaction skills. *Malaysian Online Journal of Educational Sciences*, *8*(4), 9–21.

Margunayasa, I. G., Ni, N. K., Ni Luh Sri Surya,Wisma Jayanti, Ni Made Daini Vitra,Sinta Sari, & I Made, H. S. (2018). The effect of collaborative learning aided by the mind mapping method on science learning achievement. *European Alliance for Innovation (EAI).*

Olanrewaju, Muraina Kamilu. (2019). Effects of collaborative learning technique and mathematics anxiety on mathematics learning achievement among secondary school students in Gombe State, Nigeria. *Asian Journal of University Education*, *15*(1).

Ryzin, M. J., & Roseth, C. J. (2019). Effects of cooperative learning on peer relations, empathy, and bullying in middle school. *Aggressive Behavior*, *45*(6), 643–651.

Ryzin, M. J., Roseth, C. J., & McClure, H. (2020). The effects of cooperative learning on peer relations, academic support, and engagement in learning among students of color. *Journal of Educational Research*, *113*(4), 283–291.

15

Ryzin, M. J., & Roseth, C. J. (2021). The cascading effects of reducing student stress: cooperative learning as a means to reduce emotional problems and promote

academic engagement. *Journal of Early Adolescence*, *41*(5), 700–724.

Scager, K., Boonstra, J., Peeters, T., Vulperhorst, J., & Wiegant, F. (2016). Collaborative learning in higher education: evoking positive interdependence. *CBE—Life Sciences Education*, *15*(4), ar69, 1-9.

Sumadi, Degeng, I Nyoman S., Sulthon, Waras. (2017). Effect of ability grouping in reciprocal teaching technique of collaborative learning on individual achievements and social skills. *International Journal of Evaluation and Research in Education*, *6*(3), 216–220.

Vega-Vaca, M. L., & Hederich-Martínez, C. (2015). The impact of a cooperative learning program on the academic achievement in mathematics and language in fourth grade students and its relation to cognitive style. *Journal of New Approaches in Educational Research*, *4*(2), 84–90.