

The Power of Synergy: Unlocking the Potential of Group Dynamics Through Team-Building Practices in Junior High School

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ABSTRACT

Cooperative learning has proven to be a valuable approach to education, benefiting students in a variety of ways. However, before a team can function productively, there needs to be a period of practice and adjustment to the process of cooperation at large; this is what we call *team-building*. This case study examines the way in which teams are developed in a language course at the junior high school level. For this purpose, qualitative research has been carried out. The sample consisted of a class in the first year of junior high school (students aged 13 to 14). Research data were collected through participatory observation and semi-structured interviews. The findings revealed that students progress through four stages (Forming, Storming, Norming, and Performing) before developing intergroup dynamics and becoming fully acquainted with the cooperative process. In addition, students need time to establish the conditions of cooperation and non-standard rules of behavior at the stage of disagreement (Storming).

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1. INTRODUCTION

The concept of team-building is widely recognized in athletic and professional settings alike—the latter specifically using it to refer to practices that strengthen the bond between employees (Fapohunda, 2013; Nikitenko *et al.*, 2017; Saenko *et al.*, 2018). However, when placed in an educational setting, team-building takes on an added dimension as a pedagogical framework aimed at fostering group dynamics and familiarizing students with cooperative learning. Cooperative learning is comprised of two distinct aspects of interaction: support and diverse viewpoints. Cooperation within a team allows both for support and guidance from peers with greater academic abilities (thus creating a safe and supportive environment within the team and allowing individuals to better comprehend and accomplish tasks) and for the development of better argumentation skills and gaining of new perspectives on the subject matter for those that provide it (Wittrock, 1989). The inclusion of diverse viewpoints equips students with the necessary skills to collaborate effectively, solve problems creatively, and make informed decisions. Overall, cooperation thus fosters a rich and dynamic environment where students can engage in meaningful

discussions and exchange ideas. The role of the educator is also crucial in this context, aiming to recognize and identify learning gaps and the challenges that emerge in order to adjust instruction accordingly to facilitate optimal cognitive development. This rationale aligns with the Zone of Proximal Development (ZPD), which promotes cooperative learning environments where learners engage in tasks that are just challenging enough to promote cognitive development but can only be accomplished with scaffolded support (Doolittle, 1997; Vygotsky, 1978; Wass & Golding, 2014). However, as the collaboration progresses, it transitions to a more egalitarian approach. This shift occurs as team members collectively explore the team's shared objective from various perspectives, fostering a truly creative collective mindset (Silalahi, 2019).

In order to embody the aforementioned principles, certain conditions need to be met. According to numerous theorists, interdependence plays a pivotal role in achieving a successful collaboration and setting it apart from mere group work (Forsyth, 2009; Johnson *et al.*, 1983; Sharan, 2018; Slavin, 2010; Smith, 1996). A basic prerequisite for interdependence is a shared objective, with the outcome of interdependence being a sense of responsibility. This



responsibility should refer not only to the team (group responsibility) but also to each member (individual responsibility), as the results directly affect them (Johnson & Johnson, 2009a; Slavin, 1991). Hence, the development of a collective identity enhances the interdependence among members and fosters the creation of internal incentives (Forsyth, 2009).

In order to build a more efficient cooperation, careful educational planning is necessary. As Johnson and Johnson (1991) point out, “People do not know instinctively how to interact effectively with others.” For this reason, it is important for the educator to act as a director and supervisor to provide guidance and help students develop interpersonal communication skills in practice, as well as to implement team-building exercises at the beginning of the school year (Oakley *et al.*, 2004). Additionally, educators should be the ones to allocate teams instead of letting students choose their own groups so that the students have the opportunity to interact with classmates they might not have chosen on their own. Regarding the size of the teams, it has been found that smaller groups tend to be more effective in fostering cooperation (Slavin, 1996). As the number of members increases, preferences diverge more, and individuals become less open to the other members (Hillier & Dunn-Jensen, 2013). So, three to five students in each team are generally seen as most appropriate (Caulfield & Caroline, 2006; Oakley *et al.*, 2004). Regarding the composition of the teams, heterogeneity is recommended in order to offer students the opportunity to engage with multiple perspectives. Heterogeneity can be created both through the students’ own abilities/achievements (as is similarly suggested by the ZPD) and by factors such as gender, interests, and learning styles (Oakley *et al.*, 2004; Rytivaara, 2011; Slavin, 1991). Finally, the arrangement of the desks should allow for direct eye contact between the members to better facilitate communication and the exchange of information. Therefore, in order for a team to be a “dynamic whole” (Johnson & Johnson, 2018), it requires practice and a period of adjustment before working constructively. In this period of time, the stages of team-building take place.

2. TEAM-BUILDING STAGES

In the following study, we have chosen to incorporate four out of the five stages of team-building proposed by Tuckman and Jensen (1977, as cited in Levi & Askay, 2020). These stages were developed with the aim of elucidating the gradual progression of a team’s development before it reaches a state of productivity. The stages are as follows: 1. Forming, 2. Storming, 3. Norming, and 4. Performing (see Fig. 1).

1. During the initial stage (Forming), members engage in a process of getting to know one another’s

strengths and working styles while simultaneously establishing effective channels of communication. This stage is characterized by the pursuit of simple tasks, as the primary focus lies in cultivating strong interpersonal bonds through a shared commitment to a common goal. Also, team members often adhere to Mercer’s notion of *cumulative talk*, whereby they may choose to align with the opinions of their peers, even if they hold differing viewpoints, in order to preserve harmony within the team (Mercer, 2000; 2008).

2. The next stage is referred to as Storming. This stage typically arises due to the emergence of external or internal conflicts among the team members (Oakley *et al.*, 2004). Reasons for such conflicts can be related to the tasks assigned, such as conflicting opinions, or to the cooperation process itself, such as the lack of adherence to informal rules and roles (e.g., members that avoid doing their share of work, domineering members who refuse to listen to other viewpoints) (Johnson *et al.*, 2007; Johnson & Johnson, 2009b). Furthermore, dysfunctional or nonexistent interpersonal relationships between team members can also serve as reasons for conflict. During this stage, disputes are resolved, shedding light on aspects of the cooperation process that were not previously clear or readily apparent.
3. Once the critical problems within the team have been resolved, the next stage (Norming) involves achieving a balance in the relationships between the members. This stage focuses on establishing the norms and strategies that the team will adopt to enhance their effectiveness. At this point, the members collaborate with a higher level of autonomy, while the role of the teacher becomes more supportive.
4. To ensure the success of a classroom, it is imperative that all teams reach the Performing stage. During this stage, the most effective form of communication is Mercer’s *exploratory talk*, where members express their opinions, allowing them to be subjected to “logical scrutiny” and reach an agreement (Mercer, 2000, 2008). As students recognize their individual responsibility in collective work and the importance of interdependence, they can synthesize the most sound ideas to achieve a cohesive end result. It is worth noting that the acquisition of exploratory talk may follow a period of systematic practice in cooperative processes. Mastering these skills signifies the completion of team-building and paves the way for cooperative learning under these terms.



Fig. 1. Team-building stages (Source: Tuckman & Jensen, 1977, as cited in Levi & Askay, 2020).

3. THE IMPACT OF COOPERATIVE LEARNING ON PERSONAL DEVELOPMENT

Numerous studies have revealed the immense benefits that cooperative learning brings forth. The effectiveness of a team is not solely determined by its academic performance, which refers to the successful completion of assigned tasks, but also by its overall performance and the way in which the members interact in order to achieve their desired outcomes (Salas *et al.*, 2005). The cooperative learning approach is highly valued in education, where collaboration that successfully combines cognitive and social-emotional learning goals is considered effective. It contributes significantly to cognitive development, as it encourages the exchange of opinions, facilitates clarification and reasoning, promotes active listening and the revision of ideas, evaluates suggestions, and generates new ideas in turn. Furthermore, by providing constructive feedback and enabling informed decision-making, this approach empowers students to enhance their cognitive abilities (Baines *et al.*, 2009; Gillies & Khan, 2008; Johnson & Johnson, 2018). It likewise contributes to social-emotional development, fostering an environment that embraces diverse viewpoints, cultivates mutual respect, and strengthens relationships among students. Finally, it enhances self-esteem, fosters motivation and a positive attitude towards school and the subject matter, and equips students with effective cooperation skills (Kuhn, 2015; Johnson & Johnson, 2009a, 2018). Hence, these benefits are essential for students' overall development and well-being.

Some of the most comprehensive review studies and meta-analyses to present research findings on cooperative learning focus on the effects of implementing cooperative learning practices. Johnson *et al.* (1981) published a seminal work on the effects of cooperative learning. They conducted a meta-analysis with 122 studies to see how working together, competing against each other, and working alone, respectively, affected students' academic performances. The results unequivocally revealed that cooperation outperformed interpersonal competition and individualistic approaches. What makes these findings even more compelling is their universality, as they held true across all subjects of study and all kinds of tasks, regardless of grade level. In a similar vein, Kyndt *et al.* (2013) conducted extensive research based on 65 studies in primary, secondary, and tertiary education, highlighting the positive effects of cooperative learning on students' academic achievement. Moreover, many reviews that have surveyed the impact of cooperative learning in specific subject areas, such as mathematics (Capar & Tarim, 2015; Turgut & Gülşen Turgut, 2018) and chemistry (Bowen, 2000; Warfa, 2016), have consistently demonstrated positive effects on academic achievement.

Great interest in the impact of cooperative learning has also been directed not only on students' academic performance but also on their social-emotional development. Johnson and Johnson (2009a) conducted a comprehensive review of collaborative learning. By delving into 110 studies, the authors sought to discern the effects of collaboration on various aspects of human development. The

outcomes were classified into three broad categories: 1. "goal achievement effort," 2. "positive interpersonal relationships," and 3. "mental health." The findings of this study unveiled the positive impact cooperation had on these three domains of personal development, compared to the effects of competitive and individualized approaches. Another review by Casey and Goodyear (2015) investigated the impact of cooperative learning in physical education. The research findings underscored the multitude of advantages that students can gain from this pedagogical approach in terms of physical, cognitive, and social learning, while the variable of affective learning seemed to be facilitated in certain cases of this review.

In view of the above, the existing body of literature offers a wealth of insights into the effects of cooperative learning on personal development, further proving it to be one of the best educational approaches through its combination of multiple benefits for students. Nevertheless, as *team-building* specifically is a concept typically found in professional settings, there is a lack of sufficient research on it in the field of education. This research gap necessitates a thorough investigation into the experiences and progress of individuals within a team in order to establish the optimal conditions for successful cooperation.

4. RESEARCH METHOD

This case study seeks to investigate (a) the factors involved in designing effective cooperative learning environments, (b) the stages of team development, and (c) the impact of cooperation on individual development in three key areas: academic performance, interpersonal relationships, and emotional development. The sample was derived from a class of 29 first-year junior high school students in Athens, Greece. The ethnographic approach employed for this research allowed us to delve into the experiences of the participants within their natural environment. Data extraction encompassed participatory observation and semi-structured interviews conducted with a randomly selected sample of 8 students.

By observing their actions and processes firsthand and actively engaging with the subject under study, we were able to gain valuable insights (Willig, 2008). However, through observation, the researcher is thought to become the "tool" used for data collection, with their interpretations of the events and the context in which they take place serving as the primary data (Robson, 2002). It is, therefore, possible that these interpretations may carry a degree of subjectivity. To cross-check these data, we conducted interviews with some of the individuals involved. This approach served two purposes: firstly, it provided an additional perspective to the proposed educational approach, and secondly, it allowed us to evaluate the process from the student's standpoint. Thus, these tools allowed the researcher to establish a meaningful connection with the participants and uncover any hidden meanings either conveyed through their actions or their verbal and non-verbal communication.

5. RESULTS

In this section, we will present and analyse the findings derived from the ethnography. By employing a qualitative research approach, this study means to provide a comprehensive description and interpretation of the events and experiences that took place during teaching interventions (here defined as targeted instructional approaches aiming to instil students with a specific set of skills; here narrowed to team-building and cooperative learning processes). The teaching interventions that were explored included:

1. An introductory discussion to collaboratively establish the terms of cooperation,
2. An analysis of a specific grammatical phenomenon,
3. Writing in authentic communication forms (i.e., those used in everyday life, such as a descriptive text for school e-news, an argumentative text for a planned oral presentation at a school event). Around a general theme (“creative activities in various aspects of life”),
4. Comprehension of textual content and structure.

5.1. Observation of Teaching Interventions

The recorded field notes were classified into three distinct categories. The first category, *Designing a Cooperative Process*, encompasses the factors that the teacher took into account while preparing the cooperative process. The second category, *Stages of Developing Group Dynamics*, documents the gradual progression of the teams during the teaching interventions. Lastly, the third category, *Collaborative Process Evaluation*, offers a comprehensive overview of the interventions throughout their implementation in order to gain a holistic understanding of their overall impact.

5.1.1. Designing a Cooperative Process

It was imperative to carefully consider the composition of each team in order to ensure an effective learning environment. By taking into account the total number of students in the class, we were able to create small groups consisting of four to five members (overall, six teams). This was done to allow for more personalized attention and enhanced collaboration between peers.

When it came to determining the criteria for team formation, we prioritized heterogeneity in terms of both gender and learning abilities. By fostering diversity within

each team, we aimed to create an inclusive environment that encouraged students to learn from one another's unique perspectives and strengths. However, during the writing in “authentic communication forms” activity, we took a different approach to team formation. Instead of solely considering gender and learning abilities, we placed emphasis on the convergence of students' interests. By aligning students with similar passions and motivations, we aimed to foster a sense of shared enthusiasm and engagement. It is worth noting that we recognized the importance of minimizing disruptions and maximizing teaching time. With this in mind, we tried to limit the changes regarding team composition. This strategic approach not only saved valuable educational time but also ensured a smooth transition between activities.

Most of the teaching took place in a traditionally arranged classroom, with the students facing the instructor (see Fig. 2a). Although this arrangement did not pose insurmountable problems, it presented some technical difficulties. For instance, it was impossible for the teacher to maintain direct visual contact with all members of the teams, and manage the whole class. To address these difficulties, one of the lessons (the writing in “authentic communication forms” activity) was conducted in another room. The desks were arranged in a semi-circle format (see Fig. 2b), so as to better balance the managing of work between the teams, as well as making it easier for the teacher to supervise the educational process, monitor each student's progress, and provide immediate support when required. This adjustment not only improved the overall educational experience but also contributed to effective communication and enhanced student engagement, as it fostered a more interactive and dynamic learning environment.

5.1.2. Stages of Developing Group Dynamics

During the introductory discussion, our primary focus was on strengthening the interpersonal relationships between students and establishing the terms of effective cooperation. To achieve this, in the first teaching intervention, we implemented a light-hearted activity in the form of a puzzle. The positive atmosphere and the existing dynamics within the class had a significant impact on the group dynamics. It became evident that the first stage of team-building (Forming) had already been successfully completed from the outset. As a result, it was easy to progress to subsequent interventions, where we would encounter the second stage of team-building (Storming).

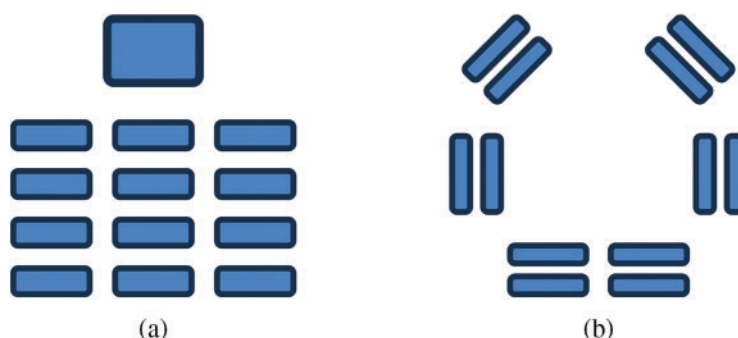


Fig. 2. Classroom seating arrangements. a. Students facing the instructor. b. Desks arranged in a semi-circle format.

During this stage, any conflict within the teams would be expressed, and efforts would be made to resolve them.

The students faced various challenges throughout the cooperative process in the subsequent teaching interventions. The first type of conflict that emerged pertained to the tasks assigned. On certain occasions, these conflicts were constructive and ultimately led to a cohesive outcome. However, in instances where strong disagreements occurred, they caused division within the team. Nevertheless, the students persevered in their tasks, adhering to the instructions provided by their teachers regarding the decision-making criteria. This adherence facilitated a smooth continuation of the collaboration and yielded satisfactory cognitive results.

Another type of conflict that was identified in some teams pertained to the cooperative process itself. Non-verbal signals clearly indicated the presence of domineering behaviors within two teams, leading to limited participation from other members. Recognizing this problem, the teachers promptly intervened to decentralize the students' imposed leadership and encourage greater engagement from all team members.

Further conflicts pertaining to cooperative procedures involved members either avoiding their responsibilities or creating disturbances. These conflicts hindered the smooth functioning of the class, as they violated the informal norms within the team and the class as a whole. Consequently, this disruption, as well as the classroom's lack of prior experience in teamwork, meant that significant challenges were posed regarding effective time management. The teams struggled to coordinate and progress, leading to the delayed completion of the assigned tasks. As a result, there was an insufficient amount of time remaining for all teams to showcase their work in class.

One potential solution to address intra-group organization and prevent disruption could be the assignment of specific roles within each team. Interestingly, in two out of the six teams, it was observed that the students had already assigned roles to each other during the introductory discussion. This spontaneous allocation of roles facilitated cooperation and yielded satisfactory results within these teams, ultimately contributing to improved coordination and enhanced functionality within the teams. This was primarily due to the interdependence that was fostered among the members. Recognizing this positive outcome, the teachers incorporated the assignment of roles as a necessary feature for subsequent interventions.

5.1.3. Collaborative Process Evaluation

According to the class teacher, despite the challenges that were identified, collaboration proved to be effective within the teams. The students displayed a high level of engagement during all teaching interventions, and there was extensive interaction both between the teacher/researcher and the students and between the team members themselves during the cooperative process. Additionally, three of the teams had already started to establish a satisfactory level of interdependence and individual responsibility for their collective work. This progress indicated a promising transition to the third stage of team-building (Norming).

5.2. Interviews

The data that were gathered from the interviews have been classified into three distinct axes in order to provide a more comprehensive and insightful analysis. The *Social-emotional Perspective* explores the students' personal experience with cooperation, the relationships they formed with their peers both within and outside the defined cooperative setting of the class, the effectiveness of communication within the team, any conflicts that arose, and the strategies employed to resolve them. The *Academic Perspective* examines the learning benefits of the cooperative process as expressed by the interviewed students. The last axis, *Collaborative Process Evaluation*, delves into their overall experience regarding the cooperative learning process.

5.2.1. Social-Emotional Perspective

The teaching interventions appeared to create intrinsic motivation among students and received positive evaluations despite the inhibiting factors to which some students referred. Notably, Student 1 claimed that within the team setting, he felt comfortable asking questions that he had previously been hesitant to pose to the whole class, and he received satisfactory responses. Likewise, Students 2, 3, and 4 reported that the collaborative process enhanced their interpersonal relationships with their peers outside of the classroom. These findings showcase the effectiveness of the interventions in promoting student engagement and social connections.

A comprehensive analysis of each interviewee follows in order to examine their communication dynamics, focusing on the students' abilities to effectively interact and collaborate with their teammates. Additionally, an in-depth exploration is undertaken to identify the various forms of conflicts that arose during team discussions and, subsequently, the strategies employed to successfully resolve them. Finally, an assessment of the students' social skills is conducted, aiming to gauge their proficiency in areas such as active listening, empathy, and effective verbal and non-verbal communication. This evaluation provides valuable insights into the students' interpersonal abilities and their capacity to navigate social interactions within a team setting.

Student 2 revealed that from the beginning of the first activity, the team took the initiative to establish a structured system of communication. This effective communication between members laid the foundation to ensure equal participation in the activities. The conflicts that arose within the team thus primarily revolved around the tasks rather than the cooperative processes themselves. Interestingly, the way these disagreements were handled seemed to only enhance team unity. Some students provided psychological support to their teammates, helping them to successfully overcome their initial reluctance, while the empathy of other members ensured that no one felt embarrassed. The team carefully evaluated the arguments from different perspectives and made informed decisions on which ones to adopt. However, when faced with a dilemma, "*the power of the majority prevailed*" (Student 2).

Student 4 claimed that all team members actively cooperated toward achieving their common objective. Likewise,

conflicts arising from the activity itself were viewed as catalysts for generating innovative ideas, as they prompted thorough evaluation of the opinions expressed. However, the introduction of a new member during the third teaching intervention proved to be a disruptive factor, causing the team to lose focus and deviate from their intended goal. Despite this challenge to team cohesion, there appeared to be a strong dynamic among the members:

"I was ready to give up, but two team members pushed me to keep going." (Student 4)

Reflecting on her experience, Student 3 revealed that the team's communication during the first teaching intervention was very effective, as the team was able to make decisions collaboratively. However, in the second teaching intervention, there was an imbalance in teamwork participation. Two members of the team caused disruptions and failed to coordinate their efforts, resulting in an incomplete activity. However, this setback still served as valuable feedback for future attempts. Subsequently, as Student 3 observed, there was a significant improvement in collaboration during the third teaching intervention. She noted that all team members took on their responsibilities, respected time frames, and made a concerted effort to coordinate their work on the collective activity.

In the first teaching intervention, Student 5 was assigned to a team of anxious students. Student 5 was pleasantly surprised by the exceptional teamwork displayed within this group. The members exhibited unwavering dedication towards achieving a common objective, and any different opinion regarding the activity did not impede the team's progress or give rise to conflicts.

Students 1 and 6 claimed that the collaboration was harmonious in the first teaching intervention, as they were already acquainted with all the team members. However, the subsequent interventions proved to be less effective in promoting functional teamwork. Specifically, the conflicts primarily revolved around the cooperative procedures, particularly the distinction of roles within the team of Students 1, 5, and 6. Firstly, there were problems related to non-compliance with the established class rules, with some students displaying inappropriate behavior in the classroom. Secondly, dysfunctional relationships within the team, particularly the expressed dominance of some members over others, also hampered the cooperative process. Lastly, there were conflicts pertaining to the activity itself, specifically the selection of an image for description.

Despite the challenges encountered, Student 1 perceived this process as an invaluable opportunity to enhance his social skills in effectively communicating and negotiating opinions through thoughtful discussions. Moreover, Student 6 recognized the significance of acquiring cooperative skills, as she acknowledged her struggle in dealing with situations where divergent viewpoints are expressed. Regrettably, she fell short of engaging in a constructive dialogue, as her domineering behavior overshadowed the voices of others during discussions, as was noted by Student 1 and even herself indirectly. Conversely, Student 5 expressed her indifference toward expressing personal preferences and her inclination to align with the majority. This raises the question of whether she was truly engaging in critical thinking and independent decision-making.

While it is important to consider the views of others, blindly conforming to the majority can hinder personal development. To enhance the overall dynamics of the team, it would be essential for both Student 6 and Student 5 to cultivate a balanced approach. Student 6 should strive to be an inclusive leader, creating an atmosphere where diverse opinions are welcomed and respected. On the other hand, Student 5 should aim to strike a balance between considering others' viewpoints and asserting her own independent thoughts in order to develop her own intellectual growth.

The communication within the team of Student 7 and Student 8 was exceptionally effective in the first teaching intervention. All members were fully engaged in achieving a common objective, making collective decisions, and ultimately obtaining the desired outcome. However, in subsequent teaching interventions, where the composition of the team changed, the level of communication varied. While it remained satisfactory with some members, it was nearly nonexistent with others.

"This can be attributed to the character of each child and the manners they have developed throughout their life." (Student 7)

Student 7 reported that she was the one who coordinated the tasks and believed that the other members agreed with her ideas. Mercer's *cumulative talk* is evident within this team due to Student's 7 leadership.

Student 8 was assigned to two different teams during the second teaching intervention. In the first team, she encountered problems with some members who were not adhering to the informal rules. Consequently, Student 8 approached the class teacher and requested a team change. However, in the second team, she faced a more challenging situation as there was a dysfunction in the interpersonal relationships between two female students, resulting in Student 8 being excluded from the team. In the third intervention, Student 8 remained in her initial team. As she pointed out, despite the presence of an anxious student in that team, she managed to handle the situation successfully after receiving guidance from the teacher. This led to highly functional cooperation within the team. Remarkably, the team completed their task ahead of others, achieving an excellent outcome. One notable advantage for Student 8 was the opportunity to develop conflict management skills. She began addressing the inappropriate behavior of her peers, thereby assisting others in maintaining focus on the common objective.

To address these challenges, it is imperative to foster a culture of cooperation and establish clear expectations regarding teamwork. By promoting open communication and emphasizing the importance of individual accountability, conflicts can be minimized, and the overall efficiency of the class can be enhanced. Moreover, assigning roles in some teams appeared to create an environment conducive to effective communication among the team members, thereby facilitating overall team performance. This approach greatly contributed to the enhanced performance of these teams, as it ensured that each member could both focus on a specific task of their role and actively contribute their ideas to the overall activity assigned to the team. On the contrary, in teams where the roles of

each member were not clearly defined, communication breakdowns and challenges in coordinating team activities became apparent. Therefore, it is evident that assigning roles within teams acts as a valuable strategy for promoting effective communication, encouraging active participation, and optimizing overall performance. By recognizing and utilizing the diverse skill sets of each member, teams can overcome challenges and operate more efficiently and effectively.

5.2.2. Academic Perspective

Due to the aforementioned challenges, the outcome achieved was not always satisfactory. Nevertheless, the study revealed notable cognitive advantages. Students 2, 3, 4, 5, and 8 asserted that the multitude of perspectives offered among the most valuable learning benefits of teamwork. They emphasized the synergistic nature of collaborative thinking, where each member contributes to the creation of a text that would likely not have materialized in the same way if approached individually:

“When collaborating with others, you have the opportunity to uncover different aspects of yourself and the other person. In contrast, when working alone, you are limited to utilizing only your own knowledge and perspective.” (Student 2)

Furthermore, an additional cognitive advantage that was reported was the enhanced comprehension of the learning material. Notably, despite typically struggling with the language course, Student 5 expressed that this approach significantly improved her understanding of the grammatical phenomenon being examined, as well as increased her involvement in the lessons that interested her. Moreover, Student 1 reported an improved understanding of the subject matter, thanks to the simplified explanations and examples provided by other team members. Additionally, the majority of students focused on gaining a deeper understanding of various text genres. For instance, Student 4 shared that he had retained a solid grasp of the structure of the three text genres that were examined. This was made possible through a combination of efforts: a thorough examination within the teams themselves, engaging in activities that involved comprehension and writing/speaking in “authentic communication forms,” and the presentation of other teams’ work to the whole class. Interestingly, Student 3 also emphasized the importance of presenting and evaluating texts to the whole class. She discovered that by identifying the shortcomings in her team’s text during the evaluation stage, she experienced a significant learning benefit, and now she could recall the structure of the narrative text they worked on very well.

5.2.3. Collaborative Process Evaluation

There was a clear divergence of opinions regarding the preference between individual work and teamwork. Students 2, 3, 5, and 8, despite encountering challenges within their teams, were proponents of teamwork. They appreciated the diverse perspectives that arose within a team and recognized the value of leveraging each member’s unique abilities. Additionally, they found teamwork to be an opportunity to gain a deeper understanding of

how their peers think and act on an interpersonal level while also doubling as a catalyst for developing closer relationships with some of them. Conversely, Students 1, 4, 6, and 7 each preferred individual work. They had either developed a proficiency for working independently or have had negative experiences with teamwork in the past:

“My perspectives diverge from those of others. I firmly believe that I am more effective when working independently.” (Student 6)

“While cooperation has its merits, I find that the potential risks outweigh the benefits. In a team setting, it is often challenging to ensure equal contributions from all members, and conflicts may arise due to differing opinions or work styles. These factors can hinder productivity and compromise the quality of the final outcome. So, I prefer working alone, as I believe that individual work allows for greater personal accountability and the opportunity to showcase one’s own abilities.” (Student 7)

Finally, it is worth noting that several of these students openly expressed their desire to enhance their ability to cooperate with others. They actively acknowledged the value of the cooperative process, albeit with certain conditions and preferences.

6. DISCUSSION AND CONTRIBUTIONS

6.1. Designing a Cooperative Process

In conclusion, during the design of a cooperative process, it is essential to carefully take into account group size and composition, as well as prior experience (Lou *et al.*, 1996). The teaching interventions involved teams consisting of four to five students each. This choice ensured effective communication within the teams (Hillier & Dunn-Jensen, 2013), which was further enhanced when arranging the desks in a semi-circle format so as to facilitate eye contact among team members. Regarding the composition of the teams, we recognized that diversity within the teams could foster a more enriching collaborative experience (Oakley *et al.*, 2004). Thus, our focus was mainly on forming mixed-ability and gender-balanced teams, aiming to achieve a harmonious blend that ensured equal participation and contribution from all team members. Another factor that must be taken into account when designing cooperative interventions is the students’ prior experience. During the ethnographic study, we discovered that the students had not previously engaged in cooperative learning within the classroom, contrary to what their class teacher had claimed. As a result, they lacked the necessary skills to manage certain situations, such as handling multiple perspectives or adhering to informal rules for communication and cooperation. Therefore, teachers should consider these factors and adjust their approach accordingly in order to create an environment that fosters effective cooperation and enhances the students’ overall learning experience.

6.2. Team-Building Stages

In the initial stages of implementing the cooperative process, it is imperative to prioritize the establishment of robust interpersonal relationships among students. This

can be achieved by fostering their commitment to a shared objective and cultivating an acute awareness of the interdependence among team members (Johnson & Johnson, 2009a, 2018). Consequently, it is necessary to start with shorter and less demanding activities until students become familiar with the cooperative process. Unfortunately, during teaching interventions, the researcher, having been apprised of the students' systematic engagement in this approach, assigned them activities that demanded a higher level of proficiency. Regrettably, this led to an inadequate amount of time for completion due to practical challenges encountered by the students.

As the collaborative process unfolds, students gradually "open up," leading to the emergence of diverse types of conflicts (Levi & Askay, 2020). According to the research findings, it appeared that the type of conflict within the teams has a significant impact on how it can effectively be managed.

- 1) In conflicts related to differing opinions about the assigned tasks, argumentation appears to be the most constructive solution, as it facilitates decision-making. Through argumentation, team members have the opportunity to present their positions, receive feedback, evaluate arguments, and reach a consensus that embodies their most well-founded and thoughtful judgment (Kuhn, 2015). This is what Johnson and Johnson (2009b) call *constructive controversy*. The development of these skills is emphasized in the curricula of secondary education in Greece, particularly in the context of speech development and effective communication skills. Consequently, a constructive discussion focused on the task can be effectively conducted.
- 2) In order to resolve conflicts related to the cooperation process, it is crucial to ensure equal participation among members through close intra-group control and teacher observations. However, this was not always feasible during teaching interventions, leading to disruptions in the classroom due to the violation of informal rules. These disruptions could have been avoided if students had been assigned specific roles within their teams because they could have developed a clear sense of accountability to the other members and contributed effectively to their team's success (Oakley et al., 2004; Johnson & Johnson, 2018 – see *formal cooperative learning*). Additionally, by utilizing the unique strengths and abilities of each member, the team could operate more efficiently and effectively. This was evident in two cases where the teams had clearly defined roles established from the beginning. Both observations and interviews have consistently revealed that students prefer having distinct roles within their teams, as it allows active participation and idea-sharing from all members while also facilitating the coordination of individual actions.
- 3) Another crucial factor in resolving such conflicts is the stability of the teams. When teams remain the same for an extended period of time, members realize that they cannot wait for a problematic situation to end on its own and are thus compelled

to develop skills that adapt to the team context to improve it (Delucchi, 2006). Typically, this includes the exertion of control and pressure on the other team members. According to Brown (1994), peer control helps keep students vigilant, as they recognize that every member bears responsibility for the collective performance. Furthermore, the stability of the team composition facilitates the repetition of processes, resulting in increased productivity in subsequent tasks. This is because the terms for effective cooperation have been established (Wageman et al., 2012).

- 4) Finally, in teaching interventions, conflicts arising from dysfunctional interpersonal relationships were typically resolved through the retreat of some members for the sake of collective effort. However, in such types of conflicts, students are typically expected to cultivate conflict management skills that not only foster teamwork but also contribute to the development of democratic values, their personal growth, and their seamless social integration. To facilitate this process, it is crucial:
 - a) To develop problem-solving skills so that team members are able to manage both their interpersonal relationships and their assigned tasks (Levi & Askay, 2020; Buller, 1986; as cited in Hillier & Dunn-Jensen, 2013, p. 311),
 - b) To maintain a stable team composition over a long period of time so that team members recognize the necessity of establishing conducive conditions for optimal team productivity and enhanced effectiveness (Woodcock, 2017; Delucchi, 2006).

In light of these circumstances, it is evident that a considerable amount of time is necessary for the establishment of terms of cooperation, allowing the teams to progress into the third and fourth stages of team-building. Addressing conflicts related to cooperative procedures is crucial for enhancing cohesion and cultivating a constructive and engaging learning environment. Furthermore, it is important to note that reaching the Performing stage is imperative in a classroom setting, regardless of whether or not the earlier stages have been fully grasped, as was found through the observations and some interviews. Through effective feedback, the repetition of the cooperative process, and the correction of any erroneous handling of the situations, students' skills and abilities are gradually enhanced.

6.3. The Impact of Cooperative Learning on Personal Development

In conclusion, although short-term teaching interventions provided limited indications, cooperative learning still possessed numerous benefits regarding effective learning and personal growth (Johnson & Johnson, 2018; Kuhn, 2015). The cooperative process significantly enhanced students' oral communication in two ways; firstly, it allowed multiple students to speak on a topic at once (within the context of their teams), thus fostering a more inclusive learning environment, and secondly, it encouraged students to express themselves more freely, thereby promoting

self-expression. In this way, the students were able to undergo linguistic development, which, as per Vygotsky's theory, is closely intertwined with cognitive development, given that language nourishes thought. Thus, language plays a crucial role in shaping cognitive abilities (Vygotsky, 2012).

Moreover, cooperative learning not only boosted student engagement but also facilitated the exploration of diverse perspectives and the development of argumentation skills. It also provided a sense of security, empowering even the most anxious/shy of students by bolstering their confidence, nurturing a sense of responsibility, fostering trusting relationships, promoting team spirit, and cultivating both effective communication and essential social and cooperation skills (such as active listening, accepting constructive criticism, expressing opinions without hindrance, and managing conflicts) (Johnson & Johnson, 2009a, 2018). Consequently, cooperative learning seems to enable comprehensive child development, aligning with the primary objectives outlined in Greek Law for Education (1566/85, article 1, par. 1).

7. CONCLUSION

In conclusion, Johnson and Johnson (2018) highlight the transformative effects of cooperative learning on students' academic performance, social interactions, and personal growth. It is evident that adopting a competitive or individualistic approach tends to cultivate introverted attitudes among students (Johnson & Johnson, 2009a). In contrast, nurturing a cooperative learning environment not only ensures their academic success but also increases future employability and enhances the quality of their relationships (Johnson & Johnson, 1991). Therefore, it is crucial for educators to prioritize cooperative learning by meticulously designing and implementing team-building interventions at the beginning of the school year in order to instill a sense of partnership among students and foster a culture of support and collaboration.

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CONFLICT OF INTEREST

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