# THE FORMATIVE DIMENSIONS OF COOPERATIVE LEARNING

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Abstract: Cooperative learning is a pedagogical approach that involves pupils and students working together to achieve common goals or accomplish group tasks. The efficacy of cooperative learning as a pedagogical practice is widely acknowledged, with evidence indicating its capacity to facilitate socialisation and learning among students at all levels, from kindergarten to university, and across diverse subject areas. The approach emphasises the importance of pupils and students working together as a unifiedteam in a collaborative and supportive environment. This enables them to provide constructive feedback, enhance their existing knowledge, engage in active and creative thinking, and negotiate solutions collectively. When teachers structure activities in small groups, pupils/ students are more interactive, using more equitable communication so that ideas are shared between group members and they develop more ideas to explain the problem at hand. The fact that pupils and students interact and work together not only enables them to learn from each other, but also allows them to accept more autonomy over the tasks they have to accomplish and the decisions they have to make. Research also shows that students have a lot to learn when they have opportunities to interact with each other, listen to what others have to say, share ideas and information, ask questions, critique others' ideas, and use the information to reason and solve problems together.

**Key words:** *cooperative learning; communication; learning from each other; interaction; interpersonal skills.* 

#### Introduction

According to the *Dictionary of Pedagogy* (2021), cooperative learning "represents a type of learning and, at the same time, a teaching method, based on the organisation—according to well-defined operational objectives—of collective work founded on complementarity and teleological convergence (shared goals). It is oriented towards ensuring the social aspect of learning and aims to develop students' interpersonal communication skills, interactions, social competencies. This method

values students' need to work together as a genuine team in a collegial and supportive climate, allowing them to correct one another, activate, update, and review prior knowledge, practice active, logical, divergent, and creative thinking, and negotiate within the process of learning and knowledge acquisition. Thus, learning and knowledge are both the result of personal experience and collective cooperation among classroom group members" (M. Bocoş (ed.), 2021, pp. 904-905). The same dictionary further defines the concept as "a type of cooperative learning carried out by leveraging the facilities provided by computers in the following areas: mediating the process of acquiring new knowledge, supporting the effective conduct of learning processes (regulating rules, tasks, roles, necessary operations, etc.), facilitating interactions and exchanges within the group, and controlling and monitoring these activities".

## What are the essential elements of cooperative learning?

According to the Johnson & Johnson model, cooperative learning is an instructional approach that involves students working in teams to achieve a common goal under conditions that include the following elements:

- 1. **Positive Interdependence.** Team members are required to rely on one another to achieve the goal. Everyone faces consequences if any team member fails to complete their part.
- 2. **Individual Accountability.** All students in a group are responsible for completing their portion of the work and mastering the entire material to be learned.
- 3. **Face-to-Face Interaction.** Although some group work can be divided and completed individually, it must involve interactive processes where group members provide feedback to one another, challenge reasoning and conclusions, and, most importantly, teach and encourage each other.
- 4. Appropriate Use of Collaborative Skills. Students are encouraged and supported in developing and practising skills such as building trust, making decisions, communicating effectively, and managing conflicts.
- 5. **Group Processing.** Team members set group goals, periodically evaluate their performance as a team, and identify changes they will make to function more effectively in the future.

Research has shown that compared to traditional individual and competitive instructional methods, properly implemented cooperative learning results in better learning outcomes and the superior development of communication and teamwork skills (e.g., leadership, management, and conflict resolution skills). This technique has been successfully used across all scientific disciplines, including chemistry. Journal Plus Education

However, the benefits of cooperative learning are not automatic. If implemented imperfectly, it can create significant challenges for educators. Teams may become dysfunctional, and students might resist or exhibit hostility towards group work.

#### What is the role of teachers in cooperative learning?

Teachers play a crucial role in fostering interactions among students, and cooperative learning provides opportunities to encourage these interactions. The fact that students interact and work together not only allows them to learn from one another but also to assume greater autonomy regarding the tasks they need to complete and the decisions they must make. This opportunity to be more active in their own learning sparks students' interest, reduces disruptive behaviour, and has a positive impact on the learning process (Sharan & Shaulov, 1990).

Hertz-Lazarowitz (1989) found that when teachers shift their instructional style in favour of cooperative learning, they become more engaged in a complex process of linguistic change, and their language becomes more attentive and personal as they work more closely with small groups. Consequently, their language is often more spontaneous, varied, and creative, and it conveys positive emotional messages to their students.

## How Can Cooperative Learning Be Organized?

Cooperative learning can be implemented through formal cooperative learning groups, informal cooperative learning groups, and base cooperative learning groups.

Formal Cooperative Learning Groups teach specific content, facilitate active cognitive processing of information during lectures or demonstrations, and provide long-term support for academic progress (Johnson, Johnson, & Holubec, 1992, 1993). Formal cooperative learning involves students working together over a single class period or several weeks to achieve common learning objectives and complete specific tasks (such as decision-making, problem-solving, completing a curriculum unit, writing a report, conducting a survey or experiment, reading a chapter or reference book, learning vocabulary, or answering questions at the end of a chapter).

Informal Cooperative Learning Groups involve students working together to achieve a common learning objective in temporary, ad hoc groups lasting from a few minutes to a class period (Johnson, Johnson, & Holubec, 1992; Johnson, Johnson & Smith, 1991). During a lecture, demonstration, or film, informal cooperative learning can be used to: (a) focus students' attention on the material to be learned, (b) create a conducive learning atmosphere, (c) establish expectations for what will be covered in a session, (d) ensure students cognitively process the material being taught. In direct teaching, the challenge for the teacher is to ensure that students engage in the intellectual work of organizing the material, explaining it, summarizing it, and integrating it into their existing conceptual frameworks.

Base cooperative groups are long-term, heterogeneous cooperative learning groups with stable memberships (Johnson, Johnson, & Holubec, 1992; Johnson, Johnson & Smith, 1991). The purpose of base groups is to provide support, assistance, encouragement, and help that each member needs to achieve academic progress (attending classes, completing all assignments, learning) and to aid their cognitive and social development in healthy ways. Base groups meet daily in elementary school and twice weekly in secondary school (or as often as the class meets). They are permanent (lasting from one to several years) and foster long-term peer relationships essential for consistently motivating members to work hard in school. These groups formally meet to discuss each member's academic progress, offer mutual help and assistance, and ensure that all members complete their assignments and make satisfactory progress in the academic program. They are also responsible for informing absent members about what occurred in class when they missed a session. Informally, members interact daily during and between classes, discussing assignments and helping each other with homework.

Using base groups tends to improve attendance, personalise the work and school experience, and enhance the quality and quantity of learning. The larger the class or school and the more complex and difficult the subject matter, the more important it is to have base groups.

# What are the advantages of cooperative learning concerning competitiveness and the individual approach to learning?

Research indicates that, compared to competitive and individualistic efforts, cooperation aims to:

(a) better results and higher productivity,

(b) closer, more supportive, more committed and

(c) better psychological health, social skills and self-esteem.

Unlike cooperative situations, competition situations are those in which students work against each other to achieve a goal that only one or a few can achieve.

In competition there is a negative interdependence between the achievement of objectives; students perceive that they can achieve their goals if and only if the other students in the class fail to achieve their goals (Deutsch, 1962; Johnson & Johnson, 1989). An evaluation of the achievements takes place according to the proposed rules. The result is that students either work hard to perform better than their peers or take

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it easy because they don't think they have a chance to win.

In individualistic learning situations, students work alone to achieve goals that are unrelated to those of their classmates and are evaluated based on a benchmark. The students' achievements are independent; students perceive that achieving their learning goals is unrelated to what other students are doing (Deutsch, 1962, Johnson & Johnson, 1989). The result is a focus on self-interest and personal success, and a view of others' successes and failures as irrelevant.

#### Why use cooperative learning?

The benefits of adopting cooperative learning would be as follows:

# 1) Learning for all

Cooperative learning has value in inclusive classrooms because it is based on heterogeneity and encourages peer support and bonding. However, cooperative learning is not only valuable for children with disabilities. Cooperative learning has value for all students. All students must learn and work in environments where their strengths are recognized and their individual needs are addressed. All students need to learn within a supportive community to feel safe enough to take risks.

# 2) School results

In experimental studies comparing the effects of cooperative learning on learning outcomes, most have found that outcomes are significantly better in cooperative classes than in control classes. Group goals and individual responsibility are leveraged for these academic benefits to be present. Research on behaviors within groups that contribute to learning gains has shown that students who give and receive elaborate explanations are the ones who gain the most from these activities. (Slavin, 1990)

Critical thinking is stimulated, and students clarify their ideas through discussions and debates. The level of discussion and debate in groups of three or more people and between pairs is significantly higher than when the whole class participates in a teacher-led discussion.

Students immediately receive feedback or questions about their ideas and formulate answers without having to wait for long periods of time to participate in the discussion.

Using cooperative learning, students continuously discuss, debate, and clarify their understanding of the concepts and materials considered during class. They build their knowledge base. The emphasis is on understanding the material evidenced by the students' ability to explain ideas to their peers. This leads to a sense of mastery of the content versus a passive acceptance of information from an external expert.

## 3) Communication skills

The researchers found that students engaged in cooperative learning activities developed interpersonal communication skills more easily than learners who were in other classroom contexts. They were more attentive to the feelings of others, worked in intercultural situations more easily, and liked their classmates and teachers more than other students. The researchers found that students made friends from other cultures and kept these friends outside of class hours. They had positive expectations for future interactions. They also showed a more accurate understanding of others' perspectives. In conflictual situations, they were better able to negotiate and resolve conflicts in a mutually beneficial way.

## 4) Psychological health

Students who were part of classes in which most of the learning activities were carried out through cooperation, were psychologically healthier than students who were not in such classes. They had higher self-esteem. Slavin (1990) also documented the findings that these learners have feelings of individual control over their own fate in school, the time spent solving the task was greater, and their cooperativeness and altruism were also higher.

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