

Cooperative Learning (CL)

“Learning is both an internal process of assimilating new information and a social process of discussion and negotiation.”

“...knowledge is constructed through engagement both with ideas and with others.”

file:///E:/readings/CBS_ThirdTeacher.pdf



"Education Postcard: 'Collaboration - learning arises from our dialogues'" by [Ken Whytock](#) is licensed under [CC BY-NC 2.0](#).

General assessment

The results of the Delphi studies conducted by the SLIDE partners show that the experts interviewed consider that Cooperative Learning improve the quality of students' results, including the students with learning and behavioural difficulties (the score was 1,8 and 2,06 for the two groups of students, (on a scale from 1(min) to 5 (max)).

Aim

The aim of the CL is to use the emotional and cognitive involvement of small groups of students as a learning tool, alternative to the traditional face-to-face teaching. CL gives students the freedom and independence to take control of their learning experience, thus increasing their autonomy. In the specific case of Computer-based collaborative learning, as deeply explained by Stahl, Koschmann & Suthers in their article [Computer-Supported Collaborative Learning](#), by creating an environment that fosters collaboration and knowledge sharing, CSCL improves learning and academic achievement. Students work together to identify problems, ask questions and seek answers, and share their knowledge and insights with one another.

“More than 1200 studies comparing cooperative, competitive, and individualistic efforts have found that cooperative learning methods improve students' time on tasks and intrinsic motivation to learn, as well as students' interpersonal relationships and expectations for success” (Johnson & Johnson, 2009). A [meta-analysis](#) comparing small-group work to individual work in K-12 and college classrooms also found that students working in small groups achieved significantly more than students working individually.

Target group

The target group of Computer-supported collaborative learning is typically students who are learning together to achieve a common goal or solve a task through peer-directed social interaction using a computer. The three target concepts central to the concerns of CSCL are shared understanding, social interaction, and knowledge building.

Description

During the pandemic, the CL has mostly become Computer-Supported Cooperative Learning (CSCL).

Collaborative learning groups can operate in presence or at distance and are taught to work together as a unit. The teacher serves as a facilitator and coordinator of activities, creating “learning environments” where students can work together to solve problems and achieve objectives that require the input of all members. This can only be achieved if students develop social skills and competencies that are vital for maintaining a high level of cooperation, which is fostered by a positive relational climate. Cooperative learning provides an environment where:

- all students can participate actively
- all team members and their contributions are respected
- students take responsibility for their own learning
- problem-solving skills are practised
- members draw on their previous experiences and knowledge
- objectives are clearly defined
- the internet can be used as a research tool.

Metacognitive knowledge and regulation at the group level can optimise collaborative learning by developing socio-metacognitive expertise and enhancing shared regulation. Through pedagogical interventions, learners can develop this expertise and optimise collaborative learning. The processes linked to effective self-regulated learning include goal-setting, task strategies, self-monitoring, and self-reflection.

Cooperative learning can take many forms, such as:

- group work where teams collaborate towards achieving a common goal,
- co-research where students share resources to ensure the success of everyone involved,
- and peer-review where students test and check each other's knowledge.

These different approaches to cooperative learning provide opportunities for active participation, respect for all team members, responsibility for learning, and problem-solving practice, while also encouraging the use of previous experiences and knowledge. You can find practical and useful examples [here](#).

Evaluation

Teachers can evaluate the activities performed by students through the CL both individually and at group level, and through the monitoring of the work development.

To evaluate an assignment produced using cooperative learning, a teacher can use a rubric to grade and evaluate each group's assessment task, as well as evaluate their group participation and collaboration skills. The rubric should be designed to assess the specific learning objectives of the assignment and should be shared with the students beforehand to ensure transparency.

The teacher can also conduct assessments during different stages of the exercise, including pre-exercise assessment, where students are prepared for the exercise through specific tasks and post-exercise assessment, where a detailed description of how the project will be graded is provided, and individual and group accountability is established.

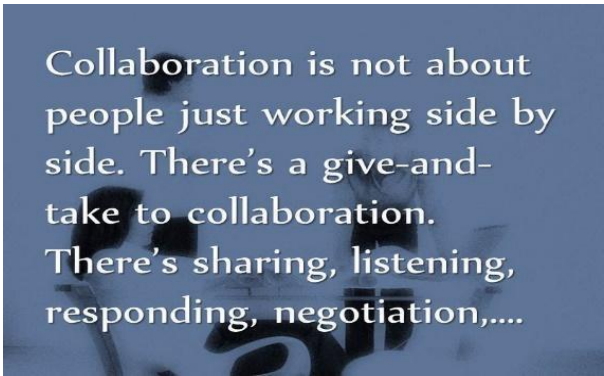
Peer review can also be used to evaluate students, but it requires well-defined criteria and clear evidence building. More practical examples on how to conduct assessment can be found [here](#).

Problem behavior risk

Cooperative learning requires a high involvement and commitment of each student, as a team member of the small group, to achieve the expected results.

[Bonnie Coggeshall](#) from the St. John Fisher University explains that some behaviour problems that could arise during cooperative learning activities include social loafing, where some members of the group do not contribute equally to the task; free-riding, where a student relies on other group members to complete the task without contributing themselves; and groupthink, where group members prioritize agreement over critical thinking. These problems can be addressed by encouraging equal participation, setting clear expectations, and promoting open communication within the group.

Teachers can also monitor group progress and intervene when necessary to ensure that all students are committed to the task assigned and each of them is doing its best to achieve the expected results.



Collaboration is not about people just working side by side. There's a give-and-take to collaboration. There's sharing, listening, responding, negotiation,....

[Educational Postcard: Collaboration is...](#) " by [Ken Whytock](#)

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Effort

An important effort is required from teachers for the clear organisation and planning of the work for the groups. An effective implementation of CSCL requires a careful design phase, an implementation phase where teachers facilitate and students are protagonists, and an assessment phase with evaluation and feedback. During the implementation phase, teachers need to play an active role in facilitating the collaborative learning process.

Teachers need to ensure that students engage in the necessary types of interaction during the collaboration phase, which include cognitive, social, and organisational interaction. This requires effort on the part of the teachers to create a conducive learning environment that fosters

collaboration and interaction among students. By doing so, they can ensure that CSCL is successfully implemented, leading to improved teaching and learning outcomes

Degree of innovation

On a scale from 1 (max) to 5 (min) the experts involved in our Delphi study have rated the method 1,8.

Experience with the method

On a scale from 1 (max) to 5 (min) the experts involved in our Delphi study have stated to be experienced with the method 1,8.

Brief instruction how to implement the method

The teacher should:

- set goals to be achieved and tasks to be performed: when the cooperative learning is guided by clear objectives, students can engage in several activities that improve their understanding of the topics assigned
- organise the work (forming groups, structuring the classroom, assigning roles and indicating the materials to be used): groups need to be well balanced – not cluster of friends or clusters of the best students, small enough so that all the learners can contribute
- explain the task: clearly explain the task to the students, along with the expectations and deadlines
- facilitate group discussion: encourage students to discuss the task and share their ideas with each other
- monitor progress: Monitor each group's progress and intervene when necessary to ensure that all students are engaged and contributing to the task
- evaluate the work of the group and of individuals: use a rubric to assess each group's performance based on the learning objectives and evaluate their group participation and collaboration skills.

By implementing cooperative learning, students can learn from each other, improve their communication and collaboration skills, and develop a better understanding of the subject matter.

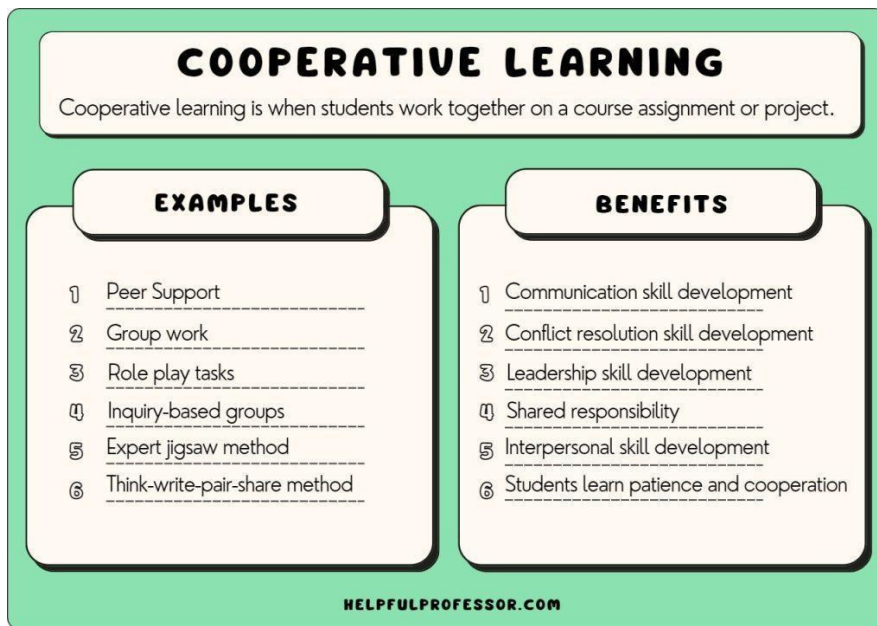


Image source <https://helpfulprofessor.com/cooperative-learning-examples/>

Search access, links, websites

<https://www.edutopia.org/stw-collaborative-learning-research>

<https://web.calstatela.edu/faculty/jshindl/cm/Chapter12CooperativeLearning-final.htm>

<https://www.orizzontescuola.it/rossi-insegnare-e-un-compito-damore-se-non-crei-legame-con-gli-studenti-loro-non-ti-ascoltano-in-classe-o-spengono-la-telecamera-in-dad-video/>

[CSCL - Computer Supported Collaborative Learning - Educare ~ We Educate, We Care. \(educarepk.com\)](http://www.educarepk.com)

Strategies for Promoting Collaboration in inclusive settings:

Group Projects: Encourage students to work together in groups on projects. This approach emphasizes active participation and shared responsibilities, fostering teamwork and engagement.

Real-time Collaboration: Provide opportunities for students to collaborate in real-time using digital tools. It can include virtual brainstorming sessions or group discussions, promoting active student interaction.

Peer Review: Incorporate peer review activities where students assess and provide feedback on each other's work. Peer review encourages collaboration, as students learn from one another and collectively improve their skills.

Activities to Encourage Collaboration in inclusive setting:

Small Group Discussions: Facilitate small group discussions on specific topics guided by a moderator. This approach encourages students to compare ideas and collaborate to reach a shared solution.

Group Projects: Assign group projects that require students to define common goals, divide tasks, and share responsibilities. Group projects foster collaboration as students learn to work together towards a common objective.

Individual Activities with Small Group Discussions: Incorporate personal activities followed by small group discussions led by a moderator. It allows students to share and compare the solutions they have found, promoting interaction, critical thinking, and cooperation.

Literature

Coggeshall, B. (2010). Assigning Individual Roles and its Effect on the Cooperative Learning Setting. *Mathematical and Computing Sciences Masters*. Paper 99.

Drew, C. (2023). 28 Cooperative Learning Examples, Skills & Benefits. *Helpful Professor*. <https://helpfulprofessor.com/cooperative-learning-examples/>. Accessed 13 Apr. 2023.

Felder, R. M. & Brent, R. (2001). Effective Strategies for cooperative learning. *Cooperation & Collaboration in College Teaching*, 10(2), 69-75.

Johnson, D. W. & Johnson, R. (1999). Learning together and alone: Cooperative, competitive, and individualistic learning (4nd ed.). Boston: Allyn & Bacon.

Johnson, D. W., Johnson, R. & Holubec, E. (1998). Cooperation in the classroom, (7th ed.). Edina, MN: Interaction Book Company.

Johnson, D. W. & Johnson, R. (2009). An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning. *Educational Researcher*.

Michailidis, N., Kapravelos, E. & Tsiatsos, T. (2018). Interaction Analysis for Supporting Students' Self-Regulation during Blog-Based CSCL Activities. *Educational Technology & Society*, 21(1), 37-47.

Slavin, R. E. (1994). Cooperative learning: Theory, research and practice. (2nd ed.) Boston: Allyn Bacon.

Stahl, G., Koschmann, T. & Suthers, D. (2006). Computer-supported collaborative learning: An historical perspective. In: Sawyer, R. K. (Eds.) Cambridge handbook of the learning sciences, Cambridge University Press, 409-426.

Webb, N. M., Troper, J. D. & Fall, R. (1995). Constructive activity and learning in collaborative small groups. *Journal of Educational Psychology*, 87(4), 406-423.