



Collaborative learning

[TeachUP](#) (Teacher UpSkilling) is a European policy experimentation coordinated by European Schoolnet (2017 – 2020). The project developed four [MOOCs](#) (Massive Open Online Courses) directed to the professional development of teachers and student teachers. The third course is entirely dedicated to the topic of collaborative learning and will become publicly available in 10 languages later this year. But how is collaborative learning defined, and what does it mean in practice?

What is collaborative learning?

Unlike traditional lecture-based learning, collaborative learning is a form of learner interaction developed through an interactive, group knowledge-building process. An assumption that people create meaning together and that the process enriches them lies at the heart of this approach.

Collaborative learning is only one group-based learning approach amongst others, notably problem-based learning and cooperative learning. Even though the terms are used interchangeably at times, they refer to three distinct approaches that have developed separately. Each has characteristics it may share with one or both other approaches; but all three have differences as well. Common features of all three approaches are: a common task or learning activity suitable for group work, small-group interaction on the learning activity, cooperative, mutually helpful behaviour among students as they strive together to accomplish the learning task, individual accountability and responsibility and interdependence in working together. Cooperative learning is typically viewed as more structured, more prescriptive and more directive about how students work together (e.g. participation roles) than the two other approaches.

Collaborative Learning is an umbrella term for a variety of educational approaches involving joint intellectual efforts by students, or students and teachers together. In most collaborative learning situations students are working in groups of two or more, collaboratively searching for understanding, solutions, meanings, or creating a product, according to Smith & MacGregor (1992). The [Teach-UP literature review](#) adapts Griffin & Care's description (2014) of the steps in collaborative problem solving: joint recognition and understanding the nature of a problem; communication, negotiation and exchange towards a plan to address the problem; coordinated action to carry out the plan, monitoring of progress; and, if necessary, adaptation of the strategy (European Schoolnet, [Perspective n. 4](#), 2018).

Collaborative learning in practice

"Collaborative learning is something that we all think we know, and people would say, oh yes, I have my students collaborating – I put them in groups. But it never goes sometimes beyond that. What exactly are they doing? Are they actually working together?"
- [Professor Deirdre Butler](#), DCU Institute of Education in Dublin.

For group work to be effective, students must be comfortable working together. To achieve that, the teacher needs to foster the right [classroom climate](#). But how do you know that your students are effectively collaborating?

[Professor Deirdre Butler](#), DCU Institute of Education in Dublin, suggests to ask the following 4 questions

to find out whether students effectively collaborate:

1. Are they working together?
2. Do they have shared responsibility?
3. Do they make substantive decisions?
4. Is their work interdependent?

In other words, [teachers need to design tasks](#) that ensure that students actually discuss, contribute to the task according to their roles, and achieve their learning goals.

The changing role of the teacher

To that end, the [role of teachers](#) changes, as the teacher should then rather function as a guide, moving between groups, [giving more personalised instructions](#) and answering questions, and also monitoring and intervening with individual group members, as necessary. This approach encourages students no longer to perceive the teacher as the only source of knowledge and information and to take responsibility for their own learning.

Challenges related to collaborative learning

There are barriers for teachers to overcome when implementing collaborative learning according to the [Teach-UP literature review](#) and [interviews with teachers](#). They include practical challenges, from curriculum coverage and behaviour management to designing a task that both stretches and supports, and professional challenges such as more time needed for preparation, a certain loss of control, the unequal participation of students in the process, or difficulties in evaluating the learning process and the contribution and learning gains of each student.



Creative thinking



What is creative thinking?

The question of how to define creative thinking is not such a straightforward one. Today, the more stable definition describes creativity “as the ability to produce work that is both novel (or original) and useful (or valuable), and the extent to which this work is creative will depend on whether the novelty and usefulness is perceived by oneself or by the whole world.” (Federal University of Pernambuco (2017). [In this video](#), teachers from the Cramlington Learning Village, England (UK) explain what creativity means to them.

Roadblocks around creative thinking

According to Tobias Heiberg, Associate Professor at the University College of Copenhagen, there are four common misconceptions around creative learning:

#1: Creativity is about artistic expression

We value and admire painters, sculptors and poets for their creativity. But many other professions can also be very creative. For example, scientists, doctors, entrepreneurs, politicians, and obviously... teachers!

Mitchel Resnick, Director of the Lifelong Kindergarten group at the MIT Media Lab

#2: Only a small segment of the population is creative

In reality, people are not born creative or uncreative. Rather, they develop a set of attitudes throughout their life that characterizes those that are willing to go their own way.

Robert J. Sternberg, Professor at Cornell University

#3: Creativity comes in a flash of insight

In reality, the ‘Eureka’ moment is only a smart part of the process.

The ‘Aha’ moments are just part of the creative process. Creativity grows out of a certain type of hard work, combining curious exploration with playful experimentation and systematic investigation.

Mitchel Resnick, MIT Media Lab

#4: You can't teach creativity

We all have the capacity to be creative. Creativity comprises different aspects:

- (A) Abilities
- (B) Knowledge
- (C) Styles of Thinking
- (D) Personality Attributes
- (E) Motivation (especially intrinsic motivation)
- (F) Environment

We can nurture/teach willingness to:

- (A) Redefine problems in novel ways
- (B) Take sensible risks
- (C) « Sell » ideas that others might not initially accept
- (D) Persevere in the face of obstacles
- (E) Examine whether their own preconceptions are interfering with their creative process

Such attitudes are teachable and can be ingrained in students under the right circumstances.

Robert J. Sternberg

Teaching creative thinking in practice

“Logic will get you from A to B. Imagination will get you everywhere.” – Albert Einstein

Creativity can be a key to success in many subjects – beyond subjects such as music and arts – such as Sciences, Maths, Language Learning...and even social and emotional intelligence. On top of that, creative people are more flexible and better problem solvers. [In this video](#), a teacher from Cramlington Learning Village shares an important message that she has for her students: “It is ok to be different, and they need to know that that’s ok.”

The changing role of the teacher

Fostering creativity in the classroom requires students to have more ownership over their learning, and the [teacher to take on a new role](#) as a guide on the side. Assuring that “students’ buy in” and the importance of the “element of choice” for students are fundamental components of the process. This element of choice is also a crucial element of personalised learning approaches. Strategies such as offering different formats to students of how to express themselves are ways forward both to personalise the students’ learning and to foster their creativity. Finally, teachers also need to show their students that they are constantly working through new ideas. The importance of being a creative teacher is also to be creative in the teaching, so to model creativity to the students. It is also possible to share when ideas don’t work and, more importantly, how to continue to work through them.

Possible strategies to be used are brainstorming, mind-mapping, and thinking out loud, while collaborative approaches can also foster students’ creative thinking, as [this video](#) from the Cramlington Learning Village illustrates. Further approaches

are strategies to foster independent learning skills, playful learning, and creative problem-solving. Mitchel Resnick, Director of the Lifelong Kindergarten group at the MIT Media Lab, and the inventor of [Scratch](#), explains that playful learning is more of an attitude, a “certain stand towards the world where you are always willing to take risks and try new things, experiment and test the boundaries.”

Finally, concerning the assessment of creative thinking skills, new technologies could really help building creativity and developing a “[growth mindset](#)” rather than a “fixed mindset” through formative assessment. [Assess@Learning](#), a new policy experimentation coordinated by European Schoolnet which focuses on digital formative assessment, has just started. Stay tuned for more news!



About TeachUP:

[TeachUP](#) (Teacher UPskilling Policy experimentation) is a policy experimentation, co-funded by the Erasmus+ Programme of the European Union. It includes [17 partners](#) (ministries of education, teacher education and research organisations) in 10 countries, and is coordinated by European Schoolnet.

TeachUP starts from the fact that new roles and competences of teachers are among the key priorities in building Europe’s future education system.