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Cooperative learning strategies

Cooperative learning is when students work together on a course assignment or project. The task complexity can range from a few simple math or reading assignments, or be very involving such as working on a large-scale project. Examples of cooperative learning include groups working in teams on a common goal, students sharing resources to ensure everyone succeeds, and students testing one another to check for knowledge. Peer Support: Two students help each other with memorizing a list of vocabulary terms and then take turns testing each other. Group work: Smalls teams of students in an advertising course create their own internet ad for a product that students in another course designed (see also: positive group dynamic examples). Co-research: Students in a university hospitality management course work together to design a customer satisfaction survey, then administer it to students at the school cafeteria and later analyze the results. Group presentation: Three middle-school students construct a science poster on volcanoes that includes photos, graphics and facts. Role play: A European History teacher allows students to form their own groups, select an historical event, and then perform a short play that portrays key developments and characters. Inquiry-based groups: Students in an IT course work in small groups to debug a program and conduct testing on its processing speed and usability. Positive interdependence: This is a term used to describe a group dynamic wherein individual and group goals are aligned. Competitive group work: Students in an engineering course work in small groups to design and construct a paper bridge and then participate in a class competition testing its strength. Think-Pair-Share (TPS) is an active learning technique that utilizes cooperative learning to improve student engagement and learning outcomes. TPS was originally proposed by Frank Lyman (1981) to increase student motivation in topics in which they may have little intrinsic interest. The process is simple and straightforward, but the benefits are substantial. First, the instructor poses a question to students that they must contemplate individually. Then students form pairs and discuss their individual thoughts on the issue at hand. Next, they come to a mutual understanding of the problem and share their conclusions with the rest of the class. Once various pairs have shared their conclusions, the instructor can guide a broader class discussion of the topic to hone in on key concepts and facts. In addition to developing higher-order thinking skills, students also exercise their problem-solving, teamwork, and communication skills. The Four Corners activity was developed by Kagan (1989) as a way to increase student engagement, develop higher-order thinking skills and encourage perspective-taking. It gives students an opportunity to formulate their own views and engage in group discussion.The steps are simple to follow: The teacher labels each corner of the classroom with the terms: strongly agree, agree, disagree, strongly disagree. The teacher then presents a statement that reflects an opinion on a specific topic related to the unit of study. Students are given several minutes to reflect upon the issue, and then move to the corner that best represents their stance Students then share views with others at that corner, followed by creating a summary statement that best represents the group consensus. The groups then take turns sharing their views, supporting their stance with reason and facts. The teacher can then guide a broader class discussion to highlight key concepts and terms. Medical schools around the world implement a cooperative learning strategy centered on problem-based learning (PBL). Students are presented with a real case study of a patient's medical condition. Instead of being told the diagnosis and treatment regimen, students work together to reach their own conclusions. They begin by discussion of the facts presented in the clinical problem, identifying what further information is needed, and where their gaps in knowledge exist. This leads to formulating a path of study and learning objectives that are often complex. The students work together to devise a plan of action and delegate learning tasks among the group that will be shared at subsequent meetings. Each group is assigned an experienced tutor who offers advice or suggestions, but plays a minimal role in the assignment. PBL increases student engagement, improves higher-order thinking and communication skills, fosters cooperative learning and mutual responsibility, and produces long-term retention of content. Peer tutoring can take on many forms. Because some students are more open to feedback from a peer than a teacher, it can be a very effective cooperative learning strategy. The teacher creates pairs of students that consist of one advanced student with one that might need more assistance. One student begins by trying to solve a math problem while thinking aloud as they work through the calculation. The other student listens and provides coaching and guidance when necessary. Afterward, roles are reversed. This gives the first student an opportunity to build their confidence and not always be in the role of the student "that needs help." Rally Coach fosters interaction and cooperation among students. It also helps students that might be overly dependent on the teacher to develop a sense of autonomy and personal responsibility for their learning outcomes. For the more advanced students, it gives them a great sense of pride and helps them develop leadership skills as well. The Minecraft education edition is a sandbox game-based learning platform that teachers can integrate into classroom instruction, to the joy and excitement of many students. The activities in the game help foster creativity, problem-solving, and cooperative learning when used in small groups. The above video shows how teachers in Ireland use Minecraft to help students see the connections between history, science, and technology. The students take on the role of Vikings to build ships, settlements and even partake in Viking raids. The lesson involves several quest challenges involve different learning experiences from archeological reconstructions to storyboarding their own digital Viking saga. As the principal of the school presented in the video states, the kids think they are playing but they are really developing problem-solving and communication skills, while also expanding their knowledge base. Expert Jigsaw Group Work Rotation Method Three-Step Interview Method Round Robin Method Numbered Heads Together Method Pair Check (60-second peer review) Fishbowl Discussion Strategy Choose your own Adventure Group Investigation Think-Write-Pair-Share Inner/Outer Circle (Speed Dating) Method Quiz-Quiz-Trade Method Reciprocal Teaching Method Escape Room Activities Peer Editing Team Scavenger Hunt There are numerous benefits to cooperative learning. Communication Skills: when students discuss task issues and goals, they develop enhanced communication skills. They learn to listen as well as explain their views more concisely and accurately. Conflict Resolution Skills: working in groups inevitably leads to disagreements. Students can learn how to resolve disagreements in a positive and constructive manner. Leadership Skills: one or more students may take on a leadership role, which will give them experience allocating tasks and resources and help them develop other project management skills. Deep Learning: sometimes students process information at a much deeper level when going at their own pace or working in a group, as opposed to a more passive mindset that occurs when listening to a teacher's lecture. Independence: students learn to not rely on teacher supervision to keep themselves on task. This helps them develop self-discipline and personal responsibility. Teamwork: by working with others, students learn that team members offer different strengths to a project. They learn the value of relying on and helping team members and the importance of cooperation to reach a common goal. Cooperative learning is an active learning strategy that involves students working together to complete a task or project. It helps students develop communication and teamwork skills as they discuss options and negotiate agreements on the best course of action. There are many forms of cooperative learning that exist across the entire educational continuum, from kindergartens to some of the most prestigious medical schools in the world. Think-Pair-Share and Four Corners give students an opportunity to formulate an opinion, discuss with others, and then arrive at a consensus point of view. In addition to traditional cooperative learning approaches, there are also opportunities for teachers to integrate technology into classroom instruction using such tools as Mincecraft. Gillies, M. R., & Boyle, M. (2010). Teachers' reflections on cooperative learning, issues of implementation. Teaching and Teacher Education, 26(4), 933–940. Johnson, D. & Johnson, R. (1989). Cooperation and competition: Theory and research. Interaction Book Company. Kagan, S. (1989). The structural approach to cooperative learning. Educational leadership, 47(4), 12-15. Lyman, F. (1981). The responsive classroom discussion: The inclusion of all students. In A. Anderson (Ed.), Mainstreaming digest (pp. 109-113). University of Maryland College of Education. Cooperative Learning is an instructional method in which students work in small groups to accomplish a common learning goal with the guidance of the teacher. "Tell me and I forget.Teach me and I remember.Involve me and I learn" Cooperative Learning is an instructional method in which students work in small groups to accomplish a common learning goal under the guidance of the teacher. Cooperative learning strategies offer students the possibility to learn by applying knowledge in an environment more similar to the one they will encounter in their future work life. Teachers get the chance to work on core competencies and on students' communication and soft skills, which are valuable for students' success in life and work, integrating them in school curricula. Cooperative learning strategies are content-free structures that can be reused in different school contexts and we are going to learn how to use some of them. Strategies can be used both in pairs and groups and are designed to fulfill all the so-called PIES principles: Positive interdependence, Individual accountability, Equal participation and Simultaneous interaction.[1] In general we talk about positive interdependence when a gain for one is a benefit for the other. Pair and group members experience themselves as a team and are on the same side working toward the same goal. To ensure positive interdependence while working with cooperative learning, two requisites must be met: students should feel on the same side and the task should require working together.[2]Check out our course on collaborative learning if you wish to know more about how to promote students' colaboration and engagement in the classroom. In the cooperative classroom, students work together as a team to create and to learn, but ultimately every individual student is responsible for his or her own performance.[3] It is exactly to fulfill both positive interdependence and individual accountability that in every cooperative learning strategy students are given both time to think/work alone and to interact with peers. In this way students' autonomy and cooperation are improved. Pair and group work is usually very well welcomed by students, but the problem is that it is difficult to check whether students are equally working. Cooperative learning strategies instead make sure every student in each team or pair is equally contributing to the final achievement. They are actually designed to make students interact and to have everyone at every step of the activity fulfil a specific task. In sequential interaction, when only one student at a time is engaged, the teacher talks (at least) twice for each time a student talks. And when the teacher is the most active participant in the classroom, students are obviously disengaged (and most likely bored as well). Cooperative learning strategies on the contrary are designed to produce simultaneous interaction, so to engage as many students as possible simultaneously.[4] What teachers soon observe when working with cooperative learning strategies is that working together will offer students the chance to know their classmates better. It also helps to create a better community and therefore a warmer atmosphere in the classroom. Cooperative learning, reducing students' disengagement and favoring the natural need of students for social interaction instead of contrasting it, helps also minimize classroom management issues. Moreover, cooperative learning strategies often offer students a break from the lesson, giving them also the possibility to move around in class. The Finnish programme "Schools on the move"[5], with 90 percent of Finnish schools participating, has proven that implementing short active breaks during the lessons improves the health and wellbeing of students, as well as school enjoyment. And cooperative learning strategies are a great opportunity to engage students in active learning methods involving movement as well. Using different strategies in class fosters communication among students, and can make the class more meaningful and fun at the same time. Communication skills are recognized to be valuable for students' future work- and personal life. But yet they are often neglected in school curricula. If you wish to promote your students' engagement in class, we recommend you check our course and learn how to enhance their communication and social skills through drama techniques. Cooperative learning strategies are not only very scalable but most of the time they require very little to no preparation. And some of them last less than 5 minutes, having in this short period of time all students in class being challenged and engaged. Teachers can start by implementing one single strategy in their own lesson and then evaluate the outcomes in different school classes. Strategies like Think-Pair-Share or Circle-The-Sage, for example, are not time-consuming at all and do not require a long preparation either. Think-Pair-Share is the solution to the situation every teacher encounters when asking a question in class: having the same student(s) answering every single time. Most of the students do not even feel challenged to think of a possible answer, not to mention speaking up. This happens for many reasons, probably not only due to a lack of knowledge or preparation, but also due to a lack of self-confidence. Moreover, research on "wait time" reveals that most teachers provide an average of only one second of think time after they ask a question.[6] Cooperative learning strategies also engage introspective and slower students, who need time before they feel ready to answer. In Think-Pair-Share the teacher asks a question to the whole class, as he or she would do at the beginning or at some point of the lesson. Depending on the age and on the level of the students, it could be something that requires personal interpretation at some point or not. Students get some solo time to think about a possible answer- or to write it down- then they turn to their classmate sitting next to them and get some pair-time to share and discuss what they have just found out. At the end of this activity, the teacher randomly chooses two or three pairs and asks them to briefly share their answers or responses. No matter how old students are- I have successfully used this strategy not only for small children but even in my teacher training courses– it is astonishing how much mutual interaction deepens their understanding. Pairs will most of the time succeed where single students would have probably failed. Think-Pair-Share can also be used to have students reflect on a topic, even when no right interpretation is needed, and, being the simplest and most famous cooperative learning strategy, can be the first one to be implemented. Another very effective strategy for engaging students in answering a question is Circle-the-Sage. The teacher asks a question in class, and then asks every student who can answer it to stand up. All the other students can now choose a classmate and listen to the explanation. Peer tutoring has proven to be very effective for both sides: high achievers, who are already familiar with content, get the chance to prove it and learn valuable communication skills at the same time. And teachers surely don't need to be told how much you can learn by teaching! Students who missed a concept get the chance to listen to another peer explaining. Communication includes not only speaking, reading and writing, but also listening. And it is exactly in practising the latter that the next strategy focuses on. Timed-Pair-Share is perfect for students to interact and practise the language, so it can be used in every subject where the context is everything and it makes sure every student will talk and listen for the same amount of time. After having given a topic and some time to think about it, the teacher asks students to pair up and states how long they will share- one or two minutes are a good start. In pairs, partner A shares and partner B listens. To rapidly check if the person who is talking is the one supposed to, partners can hold a pen while sharing. At the end, partners B provide positive responses, like "I enjoyed listening to you because…" or "Your most interesting idea was…" and partner switch roles.[7] The strategy Timed-Pair-Share makes shy and less talkative students speak up and force everyone to be listening for a specific amount of time. Through this activity, students improve speaking and listening skills equally and get to know their classmates better. Moreover: listening without the urge to respond helps listeners focusing on the speaker and listening only to understand, which is the definition of active listening. In second-language instruction Timed-Pair-Share can be used with any possible topic, depending on language proficiency, whether for subjects like history or literature it can be used to ask for opinions or personal interpretations. A good way to involve some movement before starting a Timed-Pair-Share and to make sure students get to talk to everybody else in the classroom and not merely their neighbours is Agree-Disagree Line-ups. The teacher announces a statement, such as, "I feel my opinion matters in this class" "Taxes should be raised" etc. The strongest 'agree' student stands at one end of the line while the strongest 'disagree' stands at the other. The remaining students stand between, closer to one end or the other. Through Timed-Pair-Share, students listen carefully to those with a similar point of view (those standing next to them in the line) or the teachers folds the line so they listen to and understand a point of view different from their own. "Students are more open to feedback from a peer than feedback from the teacher". An effective cooperative learning strategy to implement peer tutoring in class is Rally Coach. In pairs, students take turns, one student solving problems while talking through their thinking aloud, while the other listens, coaches where necessary and provides positive feedback. Roles are then reversed to do another exercise. Rally Coach can be used to maximize interaction and feedback when doing exercises in class. Students learn how to work autonomously when solving the exercise, but also how to interact, give and receive feedback from a classmate. Simultaneous interaction is provided, since every student in the class is active at the same time- either in solving the problem or coaching. Peer tutoring's downside is that it implies that some students are weaker than others and need therefore some help. Using Rally Coach, low-achievers get the help they need when doing the exercise and learn from high-achievers when coaching. If you want to learn how to implement these and more cooperative learning strategies, discover our online course "Cooperative and Collaborative Learning: Introducing Teamwork in Education". References [1] Dr. S. Kagan–M. Kagan, Kagan Cooperative Learning, Kagan Publishing, 2009, 4.2.[2] Dr. S. Kagan-M. Kagan, Ebd., Kagan Publishing, 2009, 12.2.[3] Dr. S. Kagan-M. Kagan, Ebd., Kagan Publishing, 2009, 12.9.[4] Dr. S. Kagan-M. Kagan, Ebd., Kagan Publishing, 2009, 12.19-20.[5] 6] Dr. S. Kagan-M. Kagan, Ebd., Kagan Publishing, 2009, 12.17.[7] Dr. S. Kagan-M. Kagan, Ebd., Kagan Publishing, 2009, 6.84.