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Making Cooperative Learning Powerful

Robert E. Slavin

Five key practices bring out the tremendous potential of this approach. Just about everyone loves the *idea* of cooperative learning. Think of kids working productively and excitedly in groups, everyone getting along and enthusiastically helping one another learn. Think of kids completing great projects together, encouraging one another, and forming friendships. In this ideal scenario, all students are engaged, active, and minds-on. They are learning cooperation itself, an important life skill. Cooperative learning: how pro-social, how liberating—and how does anyone really accomplish this?

Cooperative learning can be wonderful. Students often love working this way. I've heard comments like, "An explanation is easier to understand if it's coming from another kid" or "My teammates ... make sure I understand the work." But for many teachers who've tried it, cooperative learning is a noisy mess rather than a stairway to heaven. One student might be doing all the work while the others socialize, for example. Kids may ignore or belittle group mates they perceive to be low achievers. Some students may think cooperative learning is party time rather than learning time. This is why studies find that most teachers don't use cooperative learning regularly, despite extensive research supporting it (Gillies, 2014; Roseth, Johnson, & Johnson, 2008; Slavin, 1995, 2013; Webb, 2008).

It is the "learning" in cooperative learning that is too often left out. But it needn't be. Using these five strategies, teachers can get the greatest benefit possible from cooperative learning and ensure that collaboration enhances learning.

1. Form interdependent teams.

An effective cooperative group is not a collection of kids thrown together for a brief activity. It's a team composed of diverse students who care about helping one another learn—and about the success of the team itself. All members must know they can depend on one another for help.

In the forms of cooperative learning we've used for years at Johns Hopkins University and at the Success for All Foundation in elementary and secondary schools (Slavin, 1995), we group students into four-member teams (if the class doesn't divide evenly, we have a few five-member teams). A foursome provides flexibility. Some activities can be done in pairs and some with the whole team. Teams work together daily for 6–8 weeks; after that period, teachers assign new teams.

Team members move their desks together and choose a team name. At the beginning of the team's work, members engage in group bonding activities, like creating a motto or coat of arms to express their team personality.

In middle or high school, groups might investigate careers that interest them and colleges known for majors tied to those careers. Their research often culminates in each team giving a presentation about why they recommend a particular college, and teams sometimes name themselves after the school they recommend. Even if students choose Duke because of basketball fame, they've spent time helping one another learn something new, shared what matters to them, and met a deadline.

It's best if teams are composed of a cross section of the class: high and low achievers, boys and girls, students of different ethnicities. Groups definitely won't have such diversity if students choose their teams, so the teacher should make team assignments.

2. Set group goals.

Too often in cooperative learning, students are put into teams and instructed to "help one another." Helping one another is a good thing, but kids will do a lot more of it if they share a team goal.

A team goal is a target, product, or indicator that shows a team has done a good job of getting every member to perform at his or her personal best. A team goal could be increasing the average score on a quiz that all students take individually after they help one another prepare. It could be one overall product with individual components that each team member clearly contributed to, such as by coding a specific part of a computer program or contributing essential data to a group lab report.

In each case, a teacher both looks at the team average and evaluates the individual products. Teams whose work meets certain criteria are awarded certificates or small privileges. This helps team members see their joint work as achieving something important. Teams that don't have a goal are like sports teams in a game where no one knows, or cares, what the score is—not the sort of game in which all players do their best.

3. Ensure individual accountability.

This is the essential element most often left out of cooperative learning—and when it is, teachers lose a lot of cooperative learning's potential.

Individual accountability means that to reach the team goal, all team members must master the targeted content or skills. Team success should depend on the hard work—and therefore the learning—of all members. To understand why this is important, consider a team working together *without* individual accountability. Imagine that a team studies together and then takes one quiz, on which all team members can help one another. This arrangement will likely produce two undesirable outcomes: the *free rider* and the *know-it-all*.

Free riders do little work. They may chat with others, but they don't try much to learn or help others learn. "The others will do it anyway," they reason. "Why should I try?" Students who have doubts about their own skills may be shy or reluctant to participate if they know others will do the work.

The know-it-all is another story. A know-it-all (or two) may dominate the group and tell others the answers. I once saw a group of middle schoolers trying to solve a complex math problem together. (Their task was to solve the problem and give the answer as a group.) Two kids were doing most of the talking. When one of their (usually quiet) teammates ventured an opinion, both know-it-alls shushed her and told her to wait for them to deliver the answer.

How can teachers ensure individual accountability? First, make sure the team goal requires the learning and participation of all team members. For example, if the team goal is to score an average of 80 percent or better on a quiz, all students need to do well. Or a goal might be to write an outstanding report on a given country, with each chapter signed by a team member. Never choose an outcome one student could do alone. In addition, frequently reinforce the idea that the purpose of the team is to make sure that all members are learning, not just to get the right answers or complete the project. Explain why individual accountability is fair; students will readily understand why no team member should get a free ride.

During lessons, use informal cooperative structures that reinforce the idea of individual accountability. Teachers we work with in Success for All programs, for example, make frequent use of a technique called "random reporter." Each student is given a number from 1 to 5. When teachers ask a question, they direct it to a team and then pick a number at random. The student on that team with that number has to respond for the whole group—and the team can earn points based on the answer.

Practices like random reporter communicate consistently that teams must make sure all their members learn. Potential free riders understand that they will be held accountable and that they can't wait for their teammates to make all the effort. Know-it-alls realize that if they don't engage, teach, and give feedback to every team member, their team won't succeed. One middle school math teacher noted, "Students ... know they need to work hard on math problems and be ready to explain them. If they aren't ready, they can't get off the hook easily."

Finally, it's important that the teacher lets the work be challenging and doesn't step in too early to do the work for students who struggle. Doing so not only undermines teammates' developing interdependence, but also teaches students that if they feigh helplessness, display apathy, or work slowly, the teacher will soon step in and complete the tasks. If kids instead learn to make appropriate levels of effort and to persist, they will build confidence in their ability to improve and learn. They'll realize that asking for help—not the answers—helps them learn. Letting students struggle constructively and safely in their teams enables each student to reflect on his or her thinking, compare it with others' ideas, and refine that thinking before sharing it with the class—or on a test.

4. Teach communication and problem-solving skills.

Setting up structures that promote effective cooperative learning is not enough. Team members need to know how to make good use of the opportunity to work with one another; this means they need to learn about, practice, and refine key interpersonal skills.

Active listening. Active listening skills are essential in good group work—and in life. When students are listening well, their eyes are on the speaker and they occasionally nod. Active listeners avoid interrupting but periodically summarize what they hear and ask for clarification when needed. These practices communicate respect for the speaker and enable the listener to learn as much as possible from that speaker's words.

Explaining ideas and opinions. Team members need this skill to communicate and persuade in cooperative interactions. Explaining must go beyond single-word answers; students must be able to identify sources or reasons for their personal opinions or conclusions. They must explain their ideas to others so that peers can understand them too. This demands metacognition, evidentiary thinking, summarizing, paraphrasing, and listening to others thoughtfully.

Encouraging teammates. Effective team members know how to encourage and support teammates, disagree with dignity, and help maintain a positive, prosocial tone within the group. Tell students you expect them to make sure that all team members are actively participating in the thinking parts of the group's tasks. Teach them how to make that happen. Explaining your own ideas while also encouraging others is a complex skill that demands that students respect one another. Guide kids to make teamwork time a safe environment in which to speak, receive feedback, and admit what they don't understand. Once students establish a productive working relationship, they can set goals together, monitor their own progress, and solve learning problems together.

Completing tasks. Students should be expected to work on the group's tasks until they are finished to a high standard and to ensure that at the end of a team study session, all participants have learned the class objective.

When students know what constitutes great work within their team, and reach that standard, they can be proud of themselves and of any recognition their group receives.

5. Integrate cooperative learning with other structures.

Cooperative learning should be seen as a key part of each lesson, but not the whole lesson. Effective class lessons might also include teacher instruction, media- or computer-based activities, and individual assessments of various kinds. Informal cooperative-learning activities such as random reporter or think-pair-share may also be used, but these shouldn't be the only cooperative activity.

The best way to use cooperative learning is to replace individual work, which in traditional lesson cycles happens after lessons and before assessments. Individual, isolated practice is boring and ineffective for most students, especially if they struggle. Cooperative learning makes practicing to mastery engaging and social and gives all students "study buddies" to help them when they run into difficulties.

Sometimes team activities may come before teacher instruction, as when teams are conducting experiments in a discovery learning format. But at some point, a teacher needs to explain the essential objectives and give students parameters and guidance for their group work so they can move forward.

Watching a Transformation

I once observed a class of 9th graders who started the school year reading significantly below grade level. Their first-year teacher worked hard to provide a research-based cooperative learning model in which they would read a wide variety of complex texts, discuss them in teams, and prepare one another to participate in class discussions. However, students weren't making the desired progress. As the teacher looked for what was missing, she noticed students were sloppy in their work and slow to complete tasks. Although they often talked to one another, they weren't helping one another.

The first change this educator made was holding each student individually accountable for the work. The second was providing and discussing with the class rubrics for high-quality answers or comments in discussions. Students and teachers practiced scoring sample answers and exchanged feedback.

Then she made the task more interesting, challenging, personal, and relevant. She asked students to read closely and compare several journal articles about the science of emotions. Team members were to help one another answer questions that required more than recitation of facts from the articles, but to individually form their own hypotheses about the author's intent in writing the articles—and support those hypotheses with evidence from the texts.

In a few days, when the students realized that the teacher wasn't going to dilute this work to save time, they dug into the articles. Discussions flourished. Well-structured cooperative learning and recognition of work that met the standards of the rubrics ultimately transformed this class from remedial to advanced. When the students were asked what they thought about how their class was changing, one girl summed it up: "When I work with my teammates and we use the rubrics and our brains, we *know* we have a good answer. We're proud to show what we know—we are ready for any of us to report out."

Used properly, cooperative learning is an exciting way for all kids to learn. Research finds that if teachers make the five elements discussed here part of group learning, students learn more, feel more successful, love school, and enjoy the subject they're studying—and like and accept one another (Roseth et al., 2008; Slavin, 2013; Webb, 2008). For outcomes like these, it's worth the effort.

References

- Gillies, R. (2014). Cooperative learning: Developments in research. *International Journal of Educational Psychology*, *3*(2), 125–140.
- Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures. *Psychological Bulletin*, 134(2), 223–269.
- Slavin, R. E. (1995). *Cooperative learning: Theory, research, and practice* (2nd ed.). Boston: Allyn and Bacon.
- Slavin, R. E. (2013). Classroom applications of cooperative learning. In S. Graham (Ed.), *APA handbook of educational psychology*. Washington, DC: American Psychological Association.
- Webb, N. M. (2008). Learning in small groups. In T. L. Good (Ed.), 21st century education: A reference handbook (pp. 203–211). Los Angeles: Sage.

Information on Success for All's professional development and materials to help teachers impart cooperative-learning skills, including videos of what each skill looks like in practice, are available at www.successforall.org. Robert E. Slavin is director of the Center for Research and Reform in Education at Johns Hopkins University in Baltimore, Maryland, and chair of the Success for All Foundation.