Ten Strengths of How Teachers Do Cooperative Learning[i]

George M Jacobs
James Cook University Singapore
Singapore
george.jacobs@jcu.edu.au
www.georgejacobs.net

Abstract

Cooperative learning involves students in working together with peers to learn, to develop learning skills and to enjoy the learning process. This paper examines ten areas in which the author believes he and other teachers do cooperative learning well. These areas are: (1) keeping group size small, usually four or fewer; (2) encouraging students to form heterogeneous groups; (3) monitoring groups as they cooperate and encouraging groups to rely on themselves; (4) creating tasks that the groups find challenging, but not too challenging; (5) encouraging group members to do their fair share in their groups; (6) facilitating a feeling of positive interdependence among group members; (7) being willing to try new ideas in their implementation of cooperative learning; (8) learning from their experiences in using cooperative learning; (9) looking for opportunities to share with colleagues about their use of cooperative learning; (10) being cooperative in their lives outside the classroom.

Key words: cooperative learning, group activities, individual accountability, positive interdependence, cooperation as a value, teacher reflection

Cooperative learning (CL) is the thought out, systematic use of group activities so that students are more likely to learn more, develop more and enjoy more. I first learned about CL in 1985 when I was teaching in Thailand and read an article by David and Roger Johnson of the Co-operative Learning Institute (http://www.co-operation.org). CL just made so much sense to me. I was already into using group activities, in my teaching, my learning (such as studying with peers) and in other areas of my life, such as playing tennis and seeking social change.

By the time I moved back to SE Asia in 1993, I had been continuing to use CL and had already started sharing about CL with other teachers in workshops, via publications and in a video. I have been following the CL path ever since. CL still makes sense to me; I still look forward to using it when I teach my students, when I am a student and when I share with fellow educators.

The purpose of this paper is to discuss ten strengths of how my fellow teachers and I use CL. How do I know about other teachers' use of CL? In addition to conversations and correspondence with many colleagues, I have also had the good fortune to be invited to observe many teachers as they use CL and to discuss with them before and afterwards. Below, each of the ten strengths is explained, with examples and with reference to some CL principles.

Strength #1 – Encouraging Small Groups

An initial question when using CL is how many students should be in each group. I have seen groups of five, six, seven and even eight or more members, but fortunately I do not see this very often, because smaller groups, even as small as two members, are, I believe, better, and I prefer for groups never to go beyond four members. Here is why.

In the 1990s, I attended a workshop on CL by David Johnson in Penang, Malaysia, and one of the phrases he used that I still remember and repeat is, "It's impossible to be left out of a pair." In other words, if we are worried about one or more group members being, for whatever reason, excluded by their groupmates, one strategy is to keep groups small, and two is as small as groups can be. This is the CL principle of Equal Opportunity To Participate. At the same time that small groups make it less likely that any students are excluded, small groups also make it less likely that any students can seek to avoid participation. This is the CL principle of Individual Accountability.

Another potential advantage of small groups stems from we teachers' desire to maximize the amount each student interacts – via talking, writing, drawing, etc. – with peers. This is the CL principle of Maximum Peer Interactions. Extending this principle, after students have interacted in pairs, instead of immediately sharing what they have done with the entire class and the teacher, teachers sometimes ask two pairs to combine. In that way, students receive the benefit of more classmates' knowledge and perspectives, i.e., two heads are better than one, and four heads are better than two.

Strength #2-Creating Heterogeneous Groups

Once group size has been decided, the next question that fellow teachers and I face in using CL is which students should be group mates. I use heterogeneous groups, and I'm happy to report that many other teachers also do this. Four common options when forming groups are:

a. Convenience, i.e., students form groups with whoever is sitting nearest to them.
b. Students select their group mates, i.e., students form groups with whomever they wish.
c. Random selection, i.e., some methods used to select group membership at random, e.g., in a class of 49 students, to form groups of four (with one group of five), students count to 12, and all the students with the same number become group mates, for instance, the four students who are number 11s, form a group.
d. Teacher selection, i.e., teachers uses various criteria to select who should be group mates.

The easiest option is to form groups based on convenience, and often the most popular option among students is to form student-selected groups. Groups selected at random may also be heterogeneous, but may not always be so. Thus, because many teachers want heterogeneous groups, teacher selection is best and this seems to be the most common option. Groups can be heterogeneous on many factors, including past achievement, ethnicity, social class, nationality, first language and sex. Mixing students on past achievement can encourage peer tutoring, and both the tutees and the tutors can benefit from such arrangements (Webb et al., 2009). Mixing students on other factors can be beneficial in terms of exposing students to varied perspectives and helping students learn to work with people different from themselves.

By observing other teachers, I have learned and now sometimes use a compromise option between student-selected and teacher-selected groups. This option is to explain to students the benefits of heterogeneous groups and discuss some of the differences which exist among the members of the particular class. Then, students form their own groups, with the resulting individual groups mirroring the diversity that exists within the class (Slavin, 1995).

Strength #3 - Monitoring Groups

At one educational institution where I worked, a place for in-service teachers, I had a very busy, energetic colleague whom I would sometimes see in his office even when he had class. This mystified me until I learned that his strategy was to give the students a group activity to do, and then, he would return to his office to resume some urgent tasks. Indeed, I confess that I have now and then adopted a similar strategy. However, I am happy to report that neither I nor the teachers I have observed do this often. Instead, when students work in their groups, we teachers normally spend time as guides on the sides, monitoring groups and intervening occasionally to offer assistance or to highlight something we have observed.

Such active observation practices by teachers fit with the CL principle of Group Autonomy, i.e., we encourage group members to rely on each other and for different groups to look to each other for assistance, with teachers there to help, but not as the first option. Two phrases for promoting group autonomy are TTT (Team Then Teacher), and 3 + 1 B4 T (ask your three groupmates and one other group before asking the teacher). It is certainly tempting, at the first sign that a group is having difficulty or has gone astray, for teachers to intervene, to be students' knights in shining armour. I am glad that other teachers and I usually resist this temptation.

Strength #4 - Designing Doable Tasks

In my own experience using CL in my teaching and observing other teachers using CL, the main reason why group activities fail is that the tasks groups embark on are too difficult. Yes, two heads are better than one, but two heads are not magic. To use Vygotsky's (1978) terminology, tasks need to be in students' zone of proximal development, i.e., the tasks need to be ones that students can do, provided that help, also known as scaffolding, is available. This help can come from teachers, peers, materials and various learning and thinking strategies.

I try to offer such scaffolding, and I have learned various scaffolding strategies from other teachers. In addition to direct teacher assistance, as described in Strength #3 above, this scaffolding can include:

a. Modifying the difficulty level of texts and tasks.
b. Providing materials that prepare students to succeed. These materials include websites, videos, glossaries of terms and mind maps that build students' background knowledge.
c. Providing rubrics and models to guide students.
d. As mentioned in Strength #2 above, setting up groups that are heterogeneous as to past achievement.
e. Allowing students to prepare before class, as in the Flipped Classroom model (Boyer, 2013).
f. Teaching students how to help each other and how to receive help from others. Part of this fits with the CL principle of Teaching Collaborative Skills. These skills include asking for

reasons, checking that others understand and thanking others.

Strength #5 - Promoting Individual Accountability

Probably the two most oft-mentioned CL principles are Positive Interdependence (to be discussed in Strength #6) and Individual Accountability. Individual Accountability was mentioned in the discussion of Strength #1, with reference to how teachers use small groups (two, three or four members per group) to encourage students to participate actively in their groups. Indeed, one of the most often heard criticisms of group activities is that some members do not do their fair share in the group, i.e., they freeload off the work of others.

Fortunately, CL provides a range of ideas for encouraging students to each feel accountable to their groupmates, and I have seen many colleagues using these strategies, and I use many of them myself.

a. Each student receives specific information or is responsible for curating information on a particular topic, and then, as in Jigsaw (Aronson, 2016), students are responsible for teaching that information to groupmates.
b. When students do projects, group members agree on a roster of tasks and due dates for the tasks and then record whether the tasks were completed by the due dates. Plus, students assess their group mates' contributions.
c. Students work together, but they are assessed individually. For instance, on a writing task, students give each other feedback on their drafts, but each submits an individual piece of writing.
d. Rather than groups nominating spokespeople to present their work to the rest of the class, all group members need to have a speaking part in the group's presentation, or a sole presenter is chosen at random. In keeping with the principle of Maximum Peer Interactions (see Strength #1), sometimes, rather than each group taking turns to present to the entire class, groups or their randomly selected representatives can present to another group.

Strength #6 - Encouraging Positive Interdependence

Too often, students sit in the same group, but they feel little commitment to their group mates, i.e., the group lacks a feeling of positive interdependence; they do not feel that their outcomes are positively correlated. For instance, students do not feel that the learning of their group mates helps their own learning or that if one of their groupmates does poorly, they too suffer. If student groups do not feel positively interdependent, they are unlikely to strive to help one another or to strive to do well themselves for the good of the group.

Fortunately, I have learned strategies to encourage students to feel positively interdependent, and I have seen fellow teachers using these and related strategies. Here are some such strategies.

a. In keeping with the CL Principle of Teaching Collaborative Skills (Strength #4), teachers encourage students to express gratitude to groupmates for how they have helped the group succeed, e.g., "I appreciate the questions you asked. Your questions made me see that I didn't understand as well as I thought I had".
b. The group receives feedback based on the performance of the member randomly selected to represent the group. This strategy is deployed in the CL technique Everyone Can Explain

(Jacobs, Renandya, & Power, 2016). In Everyone Can Explain, students form groups of 2-4 to develop a response to a question or task. Not only do they develop a response, but they also need to explain the rationale or process behind their response. The teacher calls a student randomly to give and explain their group's response to the entire class or to another group. The group, not the individual sharing the group's response, is evaluated. In other words, they sink or swim together.

c. The group or the entire class competes against a standard, such as the class average on previous quizzes. In this way, students are encouraged to help not just their own group mates, but also their other classmates.
d. Each group member has a rotating role in the group. Roles include facilitator, question asker, comprehension checker, recorder, creator of visuals, Powerpoint designer and skit director. These roles can rotate or students who are weakest in a particular role can play that role while being coached by their more proficient group mates.
e. Teachers explain why learning particular content and skills enable students to help others, e.g., learning an additional language enables students to help people who speak that language and are in need assistance, or learning problem solving skills enables students to address problems in their communities and beyond. This fits with the CL principle of Cooperation as a Value, i.e., extending positive interdependence beyond the small group.

Strength #7 - Trying New Ideas

Among the many exciting aspects of belonging to the teaching profession are the many ideas being developed, rediscovered and combined. For example, Positive Psychology (Seligman, Steen, Park, & Peterson, 2005) represents a paradigm shift in Psychology, and educators have adopted it to their context in what has come to be called Positive Education (Norrish, Williams, O'Connor, & Robinson, 2013). I have been happy to see that like myself, many other teachers are keen to consider expanding their repertoires of ways to implement CL, for example, including insights from Positive Psychology.

Many paths exist for teachers to learn new ways of using CL. In addition to journals, books, conferences and courses, the website and e-newsletter of the International Association for the Study of Cooperation in Education (www.iasce.net) deserves special mention. For example, the association's thrice yearly e-newsletter features a list of recent journal articles related to CL. Other articles in the e-newsletter discuss relevant trends in CL and related areas.

Strength #8 - Learning from Experiences

Using CL and other student centred methods can be more complicated than using teacher centred methods. With teacher centred instruction, the key lies in how well teachers have prepared their lectures, demonstrations, etc. Thus, teachers' performance constitutes the main variable. However, with CL, teachers act as guides on the side, and what students do as they interact with classmates becomes central to the lesson's success. Teachers, myself included, need to constantly be learning about how to facilitate this student-student interaction. In addition to learning new ideas from outside sources, as discussed in Strength #7, I am happy to report that my

fellow teachers and I also like to learn from our own experiences.

An important way that we learn from experience involves learning from our students. Here are two ways fellow teachers and I learn from students. First, when students do CL differently than the ways we suggested, instead of immediately assuming that students are doing CL wrongly, we can reflect on whether students might have developed a way to cooperate that might be better, at least in some circumstances. For example, when I first starting using CL, I wanted student groups to immediately start on the tasks before them. Instead, some groups, even groups of adult students, would chit chat for a couple of minutes before engaging with the tasks. When I reflected on this, I realised that I also did this when working with colleagues, and I observed that this chit chat seemed to improve relations among group members. Thus, I now sometimes include brief warm up activities or just chit chat time early in CL activities.

A second way that fellow teachers and I learn from students involves asking for their suggestions about how to facilitate their interaction. Of course, I do not implement every student suggestion, but I do consider all of them. For instance, in relation to Strength #4, Designing Doable Tasks, students sometimes ask me for examples of what I consider to be well-done tasks and to explain what features of the examples are especially praiseworthy. This often results in better student work, not only on the immediate task but also on future tasks.

Strength #9 - Sharing with Other Teachers

Just as our students can learn more and enjoy more by interacting with their peers, i.e., their fellow students, so too can we teachers learn more about CL and enjoy doing CL more by interacting with our peers, our fellow teachers. Fortunately, many of my fellow teachers have been happy to join with me in discussing how best to do CL. This fits both with Strength #7, Trying New Ideas, and Strength #8, Learning From Experiences.

One means of sharing with other teachers involves reflecting together on our use of CL. Dewey, a pioneer in teacher reflection, made an important point when he wrote, “We do not learn from experience. We learn from reflecting on experience” (1933, p. 78). Farrell and Jacobs (2016) provided suggestions on how teachers can join each other to reflect on our teaching. Furthermore, by sharing with fellow educators, we teachers are practicing what we preach. In other words, just as we urge students to cooperate with peers, in our reflective teaching groups, we teachers are cooperating with our peers. In this way, we are putting ourselves in students’ shoes, experiencing the joys and frustrations of cooperation.

Strength #10 - Cooperating Beyond the Classroom

The CL principle of Cooperation as a Value encourages students to look for the positive interdependence (Strength #6) in all situations, not just in small group classroom situations. Teachers whom I know bring this principle to life in many ways. For instance, a colleague of mine teaches weekend classes for blue collar migrant labourers. A secondary school science teacher I know just returned from a trip with his students to Indonesia where they installed environmentally friendly sewage systems in the homes of people in rural communities. Recently, I bumped into a primary school

teacher who a few years ago took a class on cooperative learning with me and now participates in a volunteer organisation that promotes vegetarianism. Indeed, the spirit of volunteerism blossoms in the hearts of many teachers.

Furthermore, organisations of teachers seek to promote cooperation in aid of people worldwide. For instance, the Japan Association for Language Teaching has for many years had a Global Issues In Language Education Special Interest Group (http://gilesig.org). Among the varied issues they address are human rights, such as equal rights regardless of sexual preference, and protection of non-human animals. Similarly, David and Roger Johnson of the Co-operative Learning Institute have done a great deal of work on conflict resolution and peace education (e.g., Johnson, Johnson, & Tjosvold, 2012). Indeed, they make the claim that CL forms an essential element in the creation of peaceful, just and equitable societies. Thus, because we teachers are part of movements for social improvement beyond the classroom, we have a stronger commitment to CL in the classroom.

Conclusion

Change in education is notoriously difficult to achieve (Sarason, 1990). Originally, the title of this article was "Ten Errors Teachers Make in Using Cooperative Learning". However, influenced by the literature on positive psychology, cited in Strength #7, I decided to take a more positive approach to my own and other teachers' use of CL. That is why I changed the title to "Ten Strengths of How Teachers Do Cooperative Learning", to highlight strengths in the ways my colleagues and I use CL.

As is mentioned under Strength #10, the world needs CL, not just so that students learn more, but also so that students become caring world citizens. Therefore, we teachers need to celebrate our successes in promoting student-student collaboration and build on the many strengths in how we apply and develop CL. I look forward to celebrating and building with you.

References

Aronson, E. (2016). *The jigsaw classroom.* Retrieved from http://www.jigsaw.org

Boyer, A. (2013). The flipped classroom. Catering for difference. *Teacher Learning Network*, *20*(1), 28-29. Retrieved from http://teacherlearningnetwork.org.au/dl65/TLN-issue1_2013sm.pdf

Dewey, J. (1933). *How we think*, Lexington, MA: DC Heath.

Farrell, T. S. C., & Jacobs, G. M. (2016). Practicing what we preach: Teacher reflection groups on cooperative learning. *TESL-EJ*, *19*(4), 1-9. Retrieved from http://www.tesl-ej.org/pdf/ej76/a5.pdf

Jacobs, G. M., Renandya, W. A., & Power, M. A. (2016). *Simple, powerful strategies for student centered learning*. Berlin, Germany: Springer.

Johnson, D. W., Johnson, R. T., & Tjosvold, D. (2012). Effective cooperation: The foundation of sustainable peace. In P. Coleman & M. Deutsch (Eds.), *Psychological components of sustainable peace* (pp. 15-53). New York, NY: Springer.

Norrish, J. M., Williams, P., O'Connor, M., & Robinson, J. (2013). An applied framework for positive education. *International Journal of Wellbeing*, *3*(2), 147-161. doi:10.5502/ijw.v3i2.2

Sarason, S. B. (1990). *The predictable failure of educational* reform. San Francisco, CA: Jossey-Bass.

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, *60*(5), 410-421. http://dx.doi.org/10.1037/0003-066X.60.5.410

Slavin, R. E. (1995). *Cooperative learning: Theory, research, and practice* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Vygotsky, L. S. (1978). *Mind in society*. Ed. by M. Cole, V. John-Steiner, S. Scribner, & E. Souberman). Cambridge, MA: Harvard University Press.

Webb, N. M., Franke, M. L., De, T., Chan, A. G., Freund, D., Shein, P., & Melkonian, D. K. (2009). 'Explain to your partner': Teachers' instructional practices and students' dialogue in small groups. *Cambridge Journal of Education*, *39*(1), 49-70. DOI: 10.1080/03057640802701986

[i] This paper was presented at the MICELT conference in Lumut, Malaysia, 28-30 March, 2016