Cooperative Learning with Only One Student? Yes

George M JACOBS, James Cook University Singapore

george.jacobs@gmail.com

CHIN Ke Wei

Farrer Park Hospital, Singapore

chinkewei@farrerpark.com

A frequently heard concern regarding the use of cooperative learning comes from teachers with large numbers of students in their classes: 40, 50, even more than 100 students in one class. The cooperative learning literature provides reasoned responses to this reasonable concern (e.g., Smith, 2005). Perhaps, a less frequently heard concern related to cooperative learning and class size arises as to whether cooperative learning can be used with a class of only one student. This article suggests that yes, cooperative learning can also work well with that class size.

Introduction

A class size of one may be more common than thought, in at least three contexts. First, classroom teachers sometimes provide individual students with one-on-one assistance during class time or before or after class. Second, many students have private tutors outside of school hours, and some schools organise peer tutoring. Sometimes, these tutors teach only one student at a time. Third, in clinical situations, such as occur in nurse education, educators may sometimes individually supervise their students in their mastery of essential skills, in a way similar to that which people supervise apprentices.

Can cooperative learning be appropriate in these one-student / one-teacher situations? Isn't cooperative learning supposed to be about groups of two or more students helping each other, with the teacher acting as a guide on the side, not as a participant? Well, we have tried cooperative learning with one student, and we are happy to report that it can work well.

Before we discuss practical examples, first, some background. Perhaps the key theoretical foundation for cooperative learning lies in the idea that learning is a profoundly social endeavour. Indeed, the word 'social' appears in the names of many current theories of learning, e.g., Social Interdependence Theory (Johnson & Johnson, 2009) and Sociocultural Theory (Vygotsky, 1978). Central to these theories is the notion that we learn and are motivated to learn via interaction with people. Cooperative learning provides a platform for those interactions. The many studies that investigated cooperative learning and similar interactive approaches to learning have generally found cognitive and affective benefits. (For a meta-analysis of such studies, see Lou, Abrami, and d'Apollonia, 2001.)

Examples of Cooperative Learning with One Student

This section of the paper looks at teachers using cooperative learning with just one student in two contexts: when one student needs individual tutoring and in clinical situations. Before looking at those two contexts, two other contexts should be recalled in which, although there may be a full complement of students in a class, teachers might join students to act as a member of a cooperative learning group of two-four members. First, sometimes teachers join a group in order to demonstrate the steps in a cooperative learning technique or to highlight a cooperative skill, such as checking that others understand. Second, when a group is missing a member because, for example, a member is absent due to illness or a student left the room temporarily to see another member of the school's staff, teachers may sit in.

Tutoring Students One-on-One Via Cooperative Learning

Many times, teachers need to provide individual tutoring to students. Also, other school personnel or other students can play this teaching role, for instance, some schools have programs in which older students tutor younger students. In these one-on-one settings, rather than the teachers or other people in the teacher role only lecturing or demonstrating, or only waiting for the student to finish their work and then providing feedback, it might sometimes be useful and more engaging if teachers take part along with the one student. One way to do this would be to use thinking aloud (Block, 1986), in which people take turns to say what is happening in their minds as they go about a task. For instance, if a pair are reading the same text, they can take turns to think aloud to describe what they do when they encounter unknown words or how they connect what they are reading to their prior knowledge. While one person is the Thinker, their partner is the Coach. Thinking aloud provides teachers and students with windows onto each other's minds. Thus, while thinking aloud to their one student, teachers can model strategies and also show that teachers, too, sometimes struggle and also sometimes enjoy the learning process. When students think aloud, teachers can better understand and help students, because instead of only looking at students' work and trying to intuit in what areas students have done well and where they might still be struggling, with think aloud, teachers now have more insight.

Almost any cooperative learning technique can be done with one student and one teacher. In addition to thinking aloud, another simple cooperative learning technique is Write-Circle of Speakers. First, each student works alone to write their ideas. Then, they take turns to share what they have written and comment on each other's thinking. Finally, they discuss towards the goal of preparing a new response, based on what was learned via their interaction. As with the think aloud, with Write-Circle of Speakers, teachers can partner their students.

Cooperative Learning with One Student in Clinical Settings

Clinical practice experience is a key component in the development of nursing professionals, as it provides a crucial means of integrating theory with practice to enhance nurses' clinical reasoning skills. Clinical practice needs to be provided not only to people studying to become nurses but also to experienced nurses who newly join an organization or transfer to a new clinical setting. Therefore, all nurses are expected to be able to facilitate others' learning. Students, as well as nurses who are new to a particular nursing setting, are assigned to a clinical preceptor or buddy who provides orientation, supervision and guidance, sometimes on a one-to-one basis, to maximize learning opportunities.

For instance, if preceptors want preceptees to become familiar with the six-seven steps of the bag valve mask function test, preceptors may start with a demonstration of the steps and an explanation of the rationale for each step. Then, they can use Circle of Speakers in which one demonstrates a step and the other explains the rationale for that step. After the have completed all the steps, they start again so that the preceptee has an opportunity to demonstrate and explain each of the steps. Both parties can provide each other with feedback. Such cooperative learning practice helps preceptors to gain feedback on preceptees' understanding. However, this practice should probably not be done in front of patients, as it might result in their losing confidence in the care they are receiving.

The debriefing session is yet another context in which preceptors and preceptees can use cooperative learning. Preceptors are required to have a debriefing session with preceptees at the end of each working day, so that both reflect on the day's clinical experience. Unfortunately, traditional debrief sessions are mainly one-way communication in which preceptors comment on preceptees' practice and suggest improvements. Cooperative learning offers many ways to promote two-way communication. For instance, in the Circle of Writers technique both parties write down their queries or share what they have observed or learnt from each other's practice. Subsequently, they switch the papers and write feedback or explanation. Furthermore, Circle of Writers enables the preceptors or preceptees to better express themselves, especially if they are not vocal people or are not strong in the medium of instruction. The debriefing papers can also be kept in preceptees' learning portfolios.

Conclusion

In conclusion, this article has argued that just as cooperative learning can be useful with large classes of students, so too can cooperative learning be of benefit when a class consists of only one student. Indeed, the famous educator, Benjamin Bloom, who, with his colleagues, developed what is commonly known as Bloom's Taxonomy of Educational Objectives (Anderson, Krathwohl, & Bloom, 2001) cited research suggesting that the best context for learning is one student interacting with one teacher (Bloom, 1984). Cooperative learning provides an engaging and productive means of facilitating this one-on-one teaching.

References

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Boston, MA: Allyn & Bacon.

Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, *20*(3), 463-494. DOI: 10.2307/3586295

Bloom, B. S. (1984). The 2 sigma problem: The search for methods of group instruction as effective as one-to-one tutoring. *Educational Researcher*, *13*(6), 4-16.

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social Interdependence theory and cooperative learning. *Educational Researcher, 38*(5), 365-379. doi: 10.3102/0013189X09339057

Lou, Y., Abrami, P. C., & d'Apollonia, S. (2001). Small group and individual learning with technology: A meta-analysis. *Review of Educational Research*, *71*(3), 449-521.

Smith, K. A. (2005). *Enhancing large classes with active and cooperative learning.* Paper presented at the 10th Annual Summer Institute on College Teaching and Learning. Retrieved from personal.cege.umn.edu/~smith/docs/MSU-CL-largeclasses804.ppt