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A FOCUS on Cooperative Learning for Students with Disabilities

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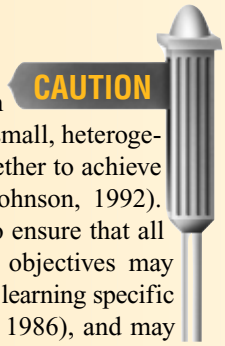
What Is It?



Cooperative learning (CL) is an instructional method that makes use of small, heterogeneous groups of students who work together to achieve common learning goals (Johnson & Johnson, 1992). The group's ultimate responsibility is to ensure that all members learn assigned material. CL objectives may range from solving common problems to learning specific academic content (Johnson & Johnson, 1986), and may include a variety of activities, such as completing worksheets, reports, or projects. Proponents of CL cite its effectiveness in promoting academic achievement (e.g., Slavin, 1996), increasing positive peer interactions (e.g., Slavin, 1991), and promoting the inclusion of students with disabilities in general education (e.g., Goor & Schwenn, 1993; Wood, Algozzine, & Avett, 1993). Given the strong support for CL in the general education literature, many classroom teachers have embraced CL as a preferred instructional strategy (e.g., Antil, Jenkins, Wayne, & Vadasy, 1998; Puma, Jones, Rock, & Fernandez, 1993).

For Whom Is It Intended?

CL was originally designed to be used with students in general education classrooms, but has been recommended for use with students with disabilities who are either included in general or special education settings (e.g., Goor & Schwenn, 1993; Johnson & Johnson, 1986; Malmgren, 1998; Margolis & Freund, 1991; Wood et al., 1993). The recommendation to use CL with students with disabilities is based at least partly on literally hundreds of studies of CL's effects on student achievement. Positive academic and social outcomes have been reported for students in every major subject area, at all grade levels, and in many different types of schools, prompting Slavin (1996) to pronounce CL to be "one of the greatest success stories in the history of educational research" (p. 43). Proponents of using CL with students with disabilities add that it provides an alternative to ability grouping and competitive environments (e.g., Johnson & Johnson), increases instructional time and enables teachers to individualize instruction (Malmgren, 1998), and improves nondisabled children's acceptance of students with disabilities (Slavin, 1991).

How Does It Work?

Implementation of CL has varied widely, from use as a general classroom strategy to implementation as part of highly structured instructional packages, such as Cooperative Integrated Reading and Composition (CIRC; Stevens, Madden, Slavin, & Farnish, 1987) and Success for All (Slavin, Madden, Dolan, & Wasik, 1996). Whereas CL strategies typically involve two or more students working together to accomplish an assigned task, it is *not* synonymous with "group work." Johnson and Johnson (1994) identified five elements critical to maintaining structure and student involvement in CL: (1) positive interdependence, which means students realize that group performance depends on the contributions of each member; (2) face-to-face promotive interaction, wherein students encourage and facilitate each other's efforts to achieve; (3) individual accountability; (4) the use of interpersonal skills; and (5) group processing, which refers to groups' reflections on how well they are functioning. Researchers emphasize that teaching students such interpersonal behaviors and monitoring their use are critical to the success of CL (e.g., Goor & Schwenn, 1993; Johnson & Johnson, 1992).

Several other instructional components may also help students with disabilities benefit from CL. First, careful attention toward assignment of students to groups is critical; students with disabilities are likely to benefit most from CL strategies if groups are heterogeneous (e.g., Goor & Schwenn, 1993; Malmgren, 1998) and their teammates are supportive and helpful (e.g., O'Connor & Jenkins, 1996). Second, assigning roles such as timekeeper, recorder, and presenter, can increase students' engagement and participation (Kagan, 1992). Third, the teacher should communicate clear objectives and criteria for mastery during CL activities, as well as expectations for appropriate behaviors (Goor & Schwenn). Explicit teaching of academic and social skills needed for group work may be necessary. Finally, frequent, systematic monitoring of student progress should also be used to assess whether students have met objectives, make appropriate grouping assignments, and hold individuals accountable for mastering material (Goor & Schwenn, 1993).

How Practical Is It?

One would surmise that CL is a practical instructional strategy, given the large numbers of teachers who have reported using it regularly. For example, in a large-scale survey of elementary school teachers (Puma et al., 1993), 74% and 79% of teachers reported using CL in language arts and math, respectively. Similarly, Antil et al. (1998) found that 93% of elementary teachers in two school districts implemented some form of cooperative learning. It should be noted, however, that many teachers who have reported using CL have not necessarily implemented it as prescribed by CL researchers, preferring more informal or modified approaches. In fact, some teachers have indicated that they found CL approaches described in the literature to be too complex, prescriptive, and unrealistic for classroom implementation (Antil et al., 1998). Thus, it is not clear that empirically supported CL strategies are always feasible for general classroom use.

For students with disabilities, the practicality of using CL is also in question. Some teachers find CL to be an efficient means of addressing individual needs in that students get more individualized attention and have the opportunity to spend more time engaged in learning tasks (e.g., Malmgren, 1998), and that peer support enables them to overcome obstacles that they might encounter when working alone (Jenkins & O'Connor, 2003). Yet, teachers have also cited a number of difficulties in implementing CL with students with disabilities, including making suitable group assignments, managing challenging behavior, maintaining student attention, and making appropriate modifications to ensure student participation. In an observational study of CL, O'Connor and Jenkins (1996) found that, because of these challenges, less than 50% of students with disabilities participated successfully in CL groups. As might be expected, teachers have noted that CL is a practical approach for some, but not all, students with disabilities (Jenkins, Antil, Wayne, & Vadasy, 2003).

How Effective Is It?

Researchers have reported mixed results for CL in improving the academic achievement of students with disabilities. In a review of this literature, Tateyama-Sniezek (1990) reported that only 50% of relevant studies found statistically significant effects favoring CL. In an update to this review, McMaster & Fuchs (2002) also found equivocal results: CL was found to promote the achievement of students with learning disabilities in only 6 of the 15 relevant studies. Several considerations important to implementing CL with students with disabilities emerged from these reviews, including (1) specific instructional components that are in place, (2) the setting in which CL is implemented, and (3) the progress that students with disabilities make as a result of CL in comparison to their non-disabled peers.

Instructional components. Many researchers have reported greater effects when CL strategies included individual accountability and group rewards (see McMaster & Fuchs, 2002; Stevens and Slavin, 1991; Tateyama-Sniezek, 1990). "Individual accountability" refers to holding each member of a CL group responsible for learning the assigned material. "Group rewards" refers to rewarding groups based on the collective performance of all the members. At the same time, inclusion of these features has not always been associated with strong CL effects (see McMaster & Fuchs, 2002). As Jenkins et al. (2003) suggest, other instructional variables may also influence the success of CL.

Other instructional variables. CL has often been combined with other innovations such as computer-assisted instruction (e.g., Malouf, Wizer, Pilato, & Grogan, 1990; Xin, 1999), Reciprocal Teaching and peer or cross-age tutoring (e.g., Klingner & Vaughn, 1996), or direct instruction (e.g., O'Melia & Rosenberg, 1994). A strong argument can be made for the use of such multi-component instructional approaches for children with disabilities. Nevertheless, by combining CL with other instructional strategies, one cannot determine whether the use of CL alone accounts for student outcomes. Another issue relating to CL's effectiveness for students with disabilities involves the interventions with which CL has been compared. Students with disabilities appear to have responded as positively, or more positively, to other types of peer-mediation such as peer tutoring (e.g., Klingner & Vaughn, 1996), or to individualized teacher-directed methods (e.g., Xin, 1999). Perhaps there is some benefit to using CL in place of more conventional instructional approaches; at the same time, other peer-mediated or individualized approaches may yield outcomes that are even more positive for students with disabilities.

Setting. McMaster and Fuchs (2002) found that studies conducted in special education classrooms were associated with smaller effects for CL than those implemented in general education classrooms. This result may not surprise advocates of CL as an inclusive strategy, who might argue that, in regular classrooms, cooperative groups tend to be more heterogeneous, providing more academic support to students with disabilities. Another possible explanation for this result is that students with disabilities in special education classrooms may have had more severe disabilities than those in regular classrooms. Students with more severe disabilities may be less responsive to even the most well designed treatments (e.g., Torgesen, 2000).

Progress of students with disabilities. Another question is whether students with disabilities make sufficient progress. An important goal of special education is not only to improve students' performance in school, but also to close the achievement gap between students with disabilities and their non-disabled peers (Vaughn, Gersten, & Chard, 2000). Several researchers have reported academic gains for CL with students with disabilities, but these gains do not necessarily result in performance more commensurate with non-disabled peers (e.g., Stevens & Slavin, 1995a, 1995b). Support for the use of CL with students with disabilities would be further strengthened if it could be demonstrated that CL not only improves students' academic achievement in comparison to an alternative treatment or control group, but that it also reduces the gap between students with disabilities and their peers in general education.

What Questions Remain?

CL has been a focus of study and commentary for more than 20 years, and researchers have investigated CL's effects in important and innovative ways. Nevertheless, before we can fully understand whether CL is an effective strategy for improving the achievement of students with disabilities, a number of questions must be addressed. The importance of CL on the academic achievement of students with disabilities would be more clear if its effects could be isolated from those of multi-component instructional packages and if the "active ingredients" of CL could be identified. Also, whether CL has different effects in general versus special education classrooms, at different grade levels, and with different subject areas and learning activities are questions that remain to be answered. Moreover, whether CL effects are sufficient for reducing the achievement gap between students with disabilities and their average-achieving peers must be further examined, and systematic comparisons of CL to other innovative instructional strategies are warranted. Results from such investigations will enable us to better interpret CL's effects on students with disabilities.

How Do I Learn More?

The following sources discuss and describe CL strategies for students with and without disabilities:

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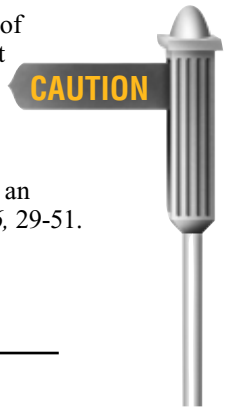

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