



# GIFTED EDUCATION AND COOPERATIVE LEARNING: A MISS OR A MATCH?

BY  
JOHN A. HUSS

**W**hen I spoke recently on the topic of cooperative learning with teachers who work with gifted students, I got the distinct impression tomato throwing was imminent. The experience certainly reinforced the discord that seems to exist between proponents of cooperative learning and those who advocate for the gifted and talented. At best, educators of the gifted have been cautioned to approach the cooperative learning bandwagon with “caution.” Is this trepidation warranted? Are the goals of cooperative learning inconsistent with the needs of gifted students? Is cooperative learning simply misunderstood or truly a mismatch?

As I progressed through my own preservice teaching preparation program in the mid-1990s, I was indoctrinated with cooperative learning as a mainstay in my instructional arsenal. Johnson, Johnson, and Smith (1991) synthesized more than 375 studies on the effect of cooperative, competitive, and individualistic efforts on student achievement and productivity and concluded that cooperative learning results in more higher level reasoning, more frequent generation of new ideas and solutions, and greater transfer of what is learned within one situation to another. Cooperative learning also promotes academic achievement, increases retention, and vastly improves student self-esteem and communication (Johnson & Johnson, 1989). When I began my teaching career, I was caught unaware when I encountered rumblings of dissension from gifted preteens and their parents after employing cooperative learning techniques in my classroom. It was, quite frankly, a harbinger of things to come, and not unlike the reaction I received in my aforementioned conference chat with gifted and talented teachers.

To arrive at common ground, one must first isolate those areas of difference between the two camps. Perhaps the greatest contention lies in the debate over heterogeneous versus homogeneous grouping (Allan, 1991; Gallagher & Coleman, 1994; Robinson, 1990; Sapon-Shevin & Schniedewind, 1993). With tracking and similar practices falling into disfavor with most reformers, a growing majority of elementary, middle, and secondary schools are becoming staunch adherents of mixed ability groups for instruction, thereby making cooperative learning a desirable strategy. As an example, 80% of Texas elementary principals report all-day use of mixed ability groupings within their buildings (elementary teachers use cooperative learning strategies 75% of the time); 51% of middle school principals cite mixed ability for everything but reading and math; and 56% of high school principals report all-day mixed ability groupings across the board (Texas Center for Educational Research, 2001).

Gifted students, however, often feel exploited when cooperative learning is used as a predominate method of instruction and groups are configured heterogeneously (Coleman, 1994; Mills & Durden, 1992; Robinson, 1991). Fiedler, Lange, and Winebrenner (2002) likewise believe heterogeneous grouping may have negative side effects both on the gifted student and on the others in the classroom. Average or low-ability students may see their “perceptions of themselves as competent, capable learners suffer” (Fiedler et al., p. 110).

Proponents of heterogeneous groupings argue the backgrounds and experiences of *all* students are important for enriching learning in the classroom. As preparation for life beyond the classroom, it is essential to provide students with opportunities in multiple contexts to understand and interact with diverse perspectives. Idealistically, cooperative learning tasks replicate in the classroom the kinds of activities that characterize adult social, economic, and political life. Teachers themselves report the frequent use of heterogeneous grouping for instruction (McManus & Gettinger, 1996). A wealth of research certainly supports this conviction.

Johnson et al. (1991), Kagan (1992), and Millis and Cottell (1998) encourage heterogeneous groups, reflecting varied learning abilities, ethnic and linguistic diversity, and a mixture of the sexes. Likewise, Spear (1992) supports grouping practices that allow for “broad peer interactions to allow students to socialize with, model, and adjust to a variety of peer influences” (p. 257). Perceived benefits to low- and middle-ability students are often a motivation for implementing the practice. Indeed, most cooperative learning “teams” suggest a composition of one low-ability student, two medium-ability students, and one high-achieving student. Further, research by the Massachusetts Advocacy Center (1990) suggests cooperative learning may be particularly beneficial for African American and Hispanic students. So, in its sincere quest for equity, many Pre-K–12 schools have embraced cooperative learning as a vehicle for creating small communities of learning to encourage critical exploration of ideas. There is, however, another side to the story.

The work of Feldhusen (1989), Kulik and Kulik (1990), Allan (1991),

Rogers (1993), and Fiedler et al. (2002) confirms what gifted educators have proclaimed for years: gifted students benefit cognitively and affectively from working with other gifted students. For many teachers, having gifted students perform the role of “pint-sized professor” in a mixed cooperative group is not the best avenue for helping these youngsters reach maximum capacity. If gifted students are consistently teaching or explaining material to other children, they are not using allocated time for high-end pursuits of their own. Heterogeneous grouping typically fails to inspire or advance most gifted students, leaving them bored, frustrated, and even anxious. Coleman and Gallagher (1995) report gifted students often feel annoyance at being “bugged” for answers, fretfulness over being perceived as “too smart or pushy,” and even anger when their grades are lowered as a result of the lack of effort on the part of others. Advocates also charge that gifted learners typically receive less individual attention than special education or remedial students and less of the scarce educational resources. So, the proverbial line in the sand is drawn.

As we grasp for resolution, I would aver well-intentioned teachers frequently *misuse* cooperative learning, because they improvise often and deviate from the integrity of the model. In a rather telling study, Antil, Jenkins, Wayne, and Vadasy (1998) investigated the use of cooperative learning by teachers ( $n=85$ ) and found that only 29% of participants could recall any researchers or developers who influenced their implementation strategies. One third of the teachers made a point to distinguish *their* version of cooperative learning from the more “formal versions,” which they found to be too restrictive and exacting. A mere 5% of teachers met Johnson and Johnson’s (1991) five-element standard

for adherence to a true cooperative format. In fact, only 24% were able to meet the two benchmarks (positive interdependence, individual accountability) emphasized by Slavin (1990) and Kagan (1990).

When the *quality* of cooperative activities were evaluated, 24% of teachers gave descriptions of complex assignments that met Cohen’s (1994) criteria for appropriate group tasks (open-ended conceptual tasks, required input from all group members, roles assigned to group members, multiple tasks related to a central academic theme). Most teachers recounted assignments Cohen regards as “collaborative seatwork” (tasks performed in groups that could have been accomplished by individuals working alone). In short, many teachers extemporize with cooperative learning and focus on basic, lower level skills at the exclusion of enrichment, problem solving, and judging propositions. “Engaging curricula” and “differentiation” do not always convert into practice. What we find are cooperative groups—led by gifted students—occupied with unsophisticated endeavors, spurred by didactic teaching. Perhaps we can compromise.

Teachers can limit the use of heterogeneous cooperative groups when the sole purpose is learning basic information or rudimentary skills. Heterogeneous groups should be reserved for challenging, creative, open-ended, and higher order thinking tasks. Ross and Smyth (1995) emphasize cooperative learning *must* be intellectually demanding for gifted learners. In this manner, gifted students will not be as apt to feel put upon to regurgitate rote material to lower ability classmates. They will not be learning concepts they have already mastered. The overall emphasis on decision making and problem solving may, in the long run, raise

the floor and eliminate the ceiling on expectations for *all* students in the classroom. Activities of a more interesting and complex nature may ultimately blur the lines between gifted education and good-for-all education. Everyone can contribute something to and benefit from lessons that are not inherently easy and predictable.

Thus, the fortuitous mishandling of cooperative learning by many unsuspecting teachers may prove to be at the core of the disagreement. Professional development in this area would be time well spent. By way of quick review, let us establish that not all group work is cooperative. Well-meaning directives to work together as a team are insufficient. For many, the notion of cooperative learning goes no further than dragging desks together or augmenting the classroom with cozy tables and four-desk cubes. It *looks* like cooperative learning, but so does a viceroy butterfly look like a monarch. Fortunately, research has isolated five essential elements of cooperative learning to help pinpoint true cooperative learning materials.

## Five Essential Elements of Cooperative Learning

### Positive Interdependence

Arguably, the most critical component of cooperative learning is positive interdependence, which occurs when the gains of individuals and teams are positively correlated (Kagan, 1992). Group members *must* perceive they are linked to each other in such a way that one cannot succeed unless everyone succeeds. Distributing materials so no single student has all the information (frequently the gifted “beast of burden”) is a standard tactic to this end. Another option is to assign divisions of labor within a group. A protracted deficiency in any of the roles clearly impacts the ability of the overall group to flourish. Often, cooperative groups have no interdependence and, therefore, no legitimate reason for being.

### Face-to-Face Interaction

A second key element of cooperative learning is face-to-face interaction. There are important cognitive and interpersonal dynamics that occur only when students impart knowledge to others, orally explain how to solve problems, discuss concepts in real time, check for understanding, and connect past with present learning. If students can easily complete a cooperative assignment without soliciting input from fellow members, the activity may not be

suitable for the structure. Creating small communities for learning can often be as simple as supplementing a lecture with brief periods of cooperative processing time.

### Individual and Group Accountability

Individual and group accountability is perhaps the tenet of cooperative learning that throws more than its share of teachers into a dither. Yes, teachers—and resistant students—must be willing to expend some effort when it comes to assessment and evaluation. Despite sporadic elementary experiences, most students are untrained with cooperative learning and may initially pine for the anonymity and low maintenance of a “normal” class. The smaller the size of the group, the greater the individual accountability can be. It is more difficult for students to hide in a group of four than in a larger group. Randomly examining students orally by calling on one student to present his or her group’s progress to the teacher or to the entire class is an effective option for monitoring student understanding,



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as is recording the frequency of a group member's contribution to the overall charge.

A popular misconception is that cooperative learning entails undifferentiated group grades wherein pencil-and-paper tests and quizzes are somehow pestilent and inconsistent with the spirit of the genre. This is untrue. I maintain that students learn together so they can subsequently gain greater individual competency. A teacher might utilize cooperative learning but *formally* grade only individual assignments. Much leeway is available as to how student mastery is weighted. A gifted student need not feel he or she hand delivers undeserved superior scores to languishing group members.

Asking students to anonymously grade fellow teammates with a rubric or scale can also produce important data. When a teacher compares student ratings with his or her own ratings, a clearer picture emerges as to how a particular member fared throughout a given activity. These ratings, combined with objective assessments, allow a teacher to evaluate not only the finished product, but also the individual strengths and weaknesses of team members.

### Interpersonal Skills

A fourth essential element of cooperative learning is the emphasis placed upon interpersonal skills. When students participate regularly in cooperative activities, they fortify leadership capabilities, develop trust in others, and sharpen their decision-making and conflict resolution skills. Failure to interact appropriately with colleagues is an oft-cited reason why many people lose employment. Rather than having students *absorb* knowledge, teachers should encourage students to think through problems, conceptualize, analyze, ask questions,

be questioned, and reflect on how their beliefs might impact and compare to others. In short, *all* students gain enduring intellectual abilities.

### Group Processing

The final requisite element of cooperative learning is group processing. As an activity unfolds, members need to discuss how well they are achieving their goals. What actions are helpful and which hinder group success? Reflecting upon the group effort and how production can be improved is a critical and often overlooked aspect of a cooperative venture.

## Strategies for Using Cooperative Learning in the Classroom

Used in its *intended* format, cooperative learning and the employment of heterogeneous grouping may prove less problematic for gifted students than the version proliferated in most K–12 classrooms, which often involves little more than competition in close quarters or sitting together to watch *some* students work. If gifted students are interacting with others on fresh, stimulating, and demanding activities, the temptation to use these youngsters solely as junior teachers will be lessened.

Several cooperative learning structures promote equitable distribution and curtail the use of gifted students as tutors. For example, “Rallytable” or “Roundtable” achieves what brainstorming achieves, yet generates responses from all participants. Students are numbered from 1–4. Person #1 writes a response to the teacher's prompt, passes the paper to #2 and so on. The process continues until the teacher calls time. Teams take turns sharing their lists until all entries are memorialized on the

board. This strategy builds positive interdependence among team members because of the shared writing surface, but more importantly, it promotes team cohesion and reinforces the power of teamwork because students see in action the value of multiple viewpoints and ideas. Rallytable also adds the gamesmanship so popular with students of all ages.

The use of “talking chips” can be extremely helpful. Each student on the team is given, say, four chips (e.g., buttons, paper clips). When a child speaks, he or she places a chip into a cup. That student cannot speak again on the topic under discussion until the other team members have likewise used a chip. When all four members have contributed a chip, the process begins anew. Talking chips will ensure no single student dominates—either by choice or coercion—the group interaction, thus removing pressure for a gifted youngster to carry the show.

Additional strategies can act as emollients for easing the philosophical differences that may exist between gifted advocates and cooperative learning enthusiasts. Teachers can employ flexibility grouping for many activities and discussions, grouping students by level of understanding of specific topics. Allowing gifted students to work together in groups in their areas of greatest strength for at least part of the school day is likewise recommended. As a complement, some teachers have administered multiple intelligence or learner preference questionnaires within their classes and periodically grouped students in this manner, thus providing time for all learners to interact with intellectual peers. “Circle the Sage” takes advantage of any students with special knowledge or experiences to share. Some students have visited particular cities, know how to make balloon animals, or understand rules to a certain game. Class members gather



around these sages to learn from them. In this way, the expert is not always the gifted student.

Cluster grouping would also be an option. Gifted students may be clustered in one section of any heterogeneous class, especially when there are not enough students to form an advanced section for a particular subject. Also, allowing gifted students the option of working alone on selected assignments should not be discounted. In many instances, gifted youngsters need to individually progress at a faster pace even if the curriculum has been modified to emphasize density and complexity. Striking a balance, then, between heterogeneous and homogenous grouping is a reasonable alternative.

## Conclusion

Hopefully, this revisiting of cooperative learning will provide much-needed validation to those teachers who currently believe wholeheartedly in the practice and recognize the increased cognitive, affective, and interpersonal benefits to their students. Perhaps it will likewise serve as encouragement to fellow educators who work with gifted students and are enchanted by cooperative learning, yet hesitant to remove the training wheels. By using a situational stratagem, teachers can meet the needs of all students in the classroom, while disserving none. They will be glad they put the co-op into cooperative learning. **GCT**

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