The goal of this paper is to advocate that cooperative learning be a key, but not the only, methodology used in peace education. Two reasons will be put forward to support this view. First, research has shown that cooperative learning promotes positive educational outcomes generally. Second, cooperative learning is harmonious with peace education because both seek to help students recognize that we all depend on each other to succeed. Cooperative learning helps students translate this recognition into action by providing opportunities to learn and practice collaboration.

There have been hundreds of investigations done on cooperative learning, involving students from primary to university level, studying a wide variety of subjects (see Johnson & Johnson, 1989 and Slavin, 1990 for reviews). In the large majority of these studies, cooperative learning methods were associated with superior results on measures of achievement, as well as on affective measures, such as self-esteem, liking for peers, and interethnic relations.

To consider how cooperative learning might lead to such outcomes, we need to understand what cooperative learning is. (An indepth discussion of differences between the various cooperative learning methods and between cooperative learning and collaborative learning, a term sometimes means the same and sometimes not, is beyond the scope of this paper.)

Davidson (1990, pp. 8-9) presents two lists of characteristics which go into the various definitions of cooperative learning. The first list, he believes, would be
commonly agreed upon, while the second contains characteristics present in some, but not all, definitions.

The four characteristics in the commonly held list are:
1. A task for group discussion and resolution (if possible)
2. Face-to-face interaction in small groups
3. An atmosphere of cooperation and mutual helpfulness with each group
4. Individual accountability

The first three characteristics are, perhaps, self-explanatory, but individual accountability may need some explanation. Oft-heard complaints about groups in school, at home, or at work are that one or more members are either doing nothing or that one or more members are not letting others participate. In a school context, those idle members are not likely to be learning. Thus, many means have been developed to encourage full participation of all group members. These include having each person take an individual quiz on the material covered, giving each member a unique piece of information which the group needs to complete its task, and giving each person a particular role to play in the group.

Davidson's list of characteristics pertaining to some, but not all definitions of cooperative learning is:
5. Heterogeneous or random grouping
6. Explicit teaching of social skills
7. Structured mutual interdependence

The first characteristic on the second list, heterogeneous grouping, can take many forms. Heterogeneity can be by gender, proficiency, motivation, ethnicity, first language, etc. Some reasons for favoring heterogeneous grouping are to foster peering tutoring, to break down stereotypes and encourage friendships across societal barriers, to facilitate target language use, and to provide
for a greater variety of perspectives. The link here between cooperative learning and peace education is clear, as a key goal of peace education is to encourage a decrease in negative feelings between people from different backgrounds and an increase in the ability of students to collaborate with people who are different than they.

Characteristic number six, explicit teaching of social skills, refers to spending class time to help students learn the skills necessary for successful collaboration. A few of these many skills are asking for explanations, encouraging others to participate, disagreeing politely, and interrupting appropriately (Kagan, 1991). Also included with the teaching of social skills is having groups spend time processing how well they interacted. Some educators believe that their students already possess appropriate skills for working with others or will develop them themselves without teacher intervention, while other educators are less optimistic and see intervention as necessary. As with heterogeneous grouping, a clear link exists between this cooperative learning characteristic and peace education, because in order to foster a peaceful world, we need to learn how and have opportunities to practice getting along with others.

The final characteristic of Davidson's, structured mutual (or positive) interdependence, relates to how to achieve the third, "an atmosphere of cooperation and mutual helpfulness within each group." As with social skills, methodologists differ as to whether or not to structure group interaction so as to encourage this feeling of cooperativeness among students. Of course, much of this depends on the degree of cooperativeness which currently exists within the class. Some of the techniques used to increase group cohesion are having groups adopt names or mottos, giving rewards based on group performance, structuring the task so that it cannot be completed without collaboration among the group members.

Some advocates of cooperative learning stress how the
above characteristics differentiate it from traditional group activities. For example, Johnson, Johnson, and Holubec (1990: 16) list nine such differences (See Table 1). Coelho, Winer, and Winn-Bell Olsen (1989), in a book of jigsaw (a particular cooperative learning technique) activities for L2 students, state that there is a qualitative difference between cooperative learning and traditional group work. In the latter:

students sit and sometimes work together. Student contributions may be unequal, and some students may not contribute, participate, or learn at all. This kind of group work, which does not create interdependence and accountability, often produces results similar to those of the traditional classroom. That is to say, the gap between high and low achievers remains more of less constant or grows wider in each successive grade, while the racial and cultural groups in the school grow farther and farther apart (p. 3).

There are many different perspectives on why cooperative learning might be associated with such effects. From a behaviorist perspective, when cooperative learning is used, reinforcement for learning comes not only from the teacher but also from an often more significant source: fellow students (Slavin, 1987; 1990). Social psychologists focus on how the feeling of positive interdependence that cooperative learning seeks to encourage among students leads to a larger sense of belonging and support among students, thus facilitating learning, as well as positive opinions about self and others, including people of different backgrounds (Aronson & Goode, 1980; Johnson & Johnson, 1989).

Cognitive psychologists emphasize the way that the give and take among students in cooperative groups leads to them to rehearse, deepen, and reformulate their understanding of content (Hythecker, Dansereau, & Rocklin, 1988). Finally,
from Deweyian and humanist perspectives, cooperative learning gives students an opportunity to learn democratic procedures, to enjoy working with others, and to be more active participants in their own learning (Sapon-Shevin & Schneidewind, 1991; Sharan, 1987).

Now let's turn to the second reason for using cooperative learning in conjunction with peace education: the compatibility of their messages. "Interdependence" is an important word in the lexicons of both peace education and cooperative learning. Interdependence basically means that what affects one person affects many others as well. In other words, we live in a world full of connections with our fellow humans and with everything else animate and inanimate on the planet and, increasingly, to the solar system beyond it. We see this concept brought to life everywhere we look. For example, many of the goods we consume are made of products from many different places. Or, the pollution created in one country soon drifts over to poison the people, animals, water, and air in another land.

Basically interdependence means that we live in an interrelated world, one in which what affects one affects has reverberation globally. In the cooperative learning literature interdependence is a key concept. Within schools, classrooms, and groups of students, three different forms of interdependence can be present, sometimes simultaneously (Deutsch, 1949; Deutsch & Krauss, 1965; Johnson, Johnson, & Holubec, 1990): noninterdependence, negative interdependence, and positive interdependence.

A situation of noninterdependence exists when people see no relation between what happens to themselves and what happens to others. Negative interdependence is the opposite; what helps one person is seen as harming the others, and what harms one as helping the others. Positive interdependence implies that a feeling exists among people in which they view what helps one of them as helping them all and what harms one of their number as harming them all.
Let's look at some classroom examples of these three types of interdependence. The prototypical example of noninterdependence among students is when they are all seated in individual seats working by themselves and are graded via a criterion-referenced measure, i.e., grades are assigned in relation to a preestablished standard, not according to students' achievement relative to classmates. In this situation, conferring with classmates is often frowned upon and students are admonished to, "keep their eyes on their own paper."

An example of negative interdependence in schools is the practice of grading on a curve, i.e., norm-referenced grading. In such a situation the high achievers are often disliked by classmates because they bring down others' grades. Another instance of negative interdependence is when students raise their hands, each vying to answer the teacher's question. One student is called upon to answer, the others may cheer an incorrect response because it gives them a chance to shine.

Creating a feeling of positive interdependence is one of the main aims of cooperative learning. An instance of such a feeling among students could be the situation when a group is preparing a report to the class on a particular topic. If each member does a good job, all benefit. Thus, everyone may want to help each other. Cooperative learning also aims to build a feeling of solidarity beyond the group level to include a whole class or an entire school. An example of classwide cohesion would be groups combining their stories into a book published by the whole class.

How do these three types of interdependence relate to the global realm, to issues in peace education? There may have been a time when people could reasonably argue that countries were in a position of noninterdependence in relation to each other. Today, that is clearly not the case, although events such as the 500th anniversary of Columbus' first voyage to the Western Hemisphere may cause some to wish
it were. Further, individuals have, since prehistoric times, depended on help from others and their environment to survive and thrive.

Many people hold the view that on an international, as well as personal, level the world is characterized by negative interdependence. In this view, countries and individuals are involved in a zero sum game with other countries and individuals, as well as with the environment, in which there are necessarily winners and losers. Those who hold the negative interdependence view usually regret this state of affairs but regard any other perspective as unrealistic. (See Kohn, 1990 for a refutation of these ideas.)

Finally, there is the belief that the relationship between countries and individuals, as well as the environment, is one of positive interdependence. From this perspective, we all benefit from what helps one of us and all are harmed by what harms one of us. Many who hold this view believe that a key stumbling block to peace is that people are unaware of how positively interdependent the world is.

While agreement on which type of interdependence is dominant in the international arena is not likely in the short-run, what is emerging is a consensus that cooperation is key on the interpersonal and environmental level. The interpersonal level is the main, but not the sole, focus of cooperative learning. Perhaps, successful interpersonal interactions in the classroom will lead students to be more willing to engage in collaboration personally outside school and to encourage their social groups, organizations, and governments to do likewise.

To conclude, two important reasons for the inclusion of cooperative learning in peace education are that: (1) cooperative learning has been shown to be effective in facilitating key educational outcomes, such as achievement, liking for others, self-esteem, and perspective taking; and, (2) both seek to promote awareness of the interdependent
nature of our world. We live in a world plagued by the destruction of competition. However, at the same time, we see countless instances of collaboration for the betterment of all. Peace education strives to promote such collaboration. It is our belief that cooperative learning can assist in this goal.
REFERENCES


