STUDENT TEAM LEARNING IN MUSIC INSTRUCTION: RESTRUCTURING THE TRADITIONAL TASK-INCENTIVE SYSTEM

BERNARD W. ANDREWS *University of Ottawa*

ABSTRACT. When a classroom is structured in a way that enables students to work cooperatively on learning tasks, the students benefit academically and socially. In both these areas, there is a wide range of positive outcomes that have been found in the research. Cooperative methods are usually inexpensive, and they require minimal teacher training. Moreover, there is a growing and widespread use of this approach to structuring the classroom environment. Music instruc-tion is predominantly characterized by competition, ensemble discipline, and a high level of technical proficiency. Students often feel that the subject does not value their views and that only the most talented succeed. As a result, many students are alienated and do not remain in the music programs. In this paper, the writer examines the benefits of cooperative learning, and he applies the principles of Student Team Learning, a cooperative approach, to restructure the music classroom into a more interactive and participatory environment.

RÉSUMÉ. Lorsqu'une salle de classe est structurée de telle manière que les élèves peuvent collaborer à des tâches d'apprentissage, cela leur profite sur le plan scolaire et social. Dans ces deux domaines, on a constaté un vaste éventail de résultats positifs. Les méthodes d'enseignement coopératif coûtent généralement peu cher et elles nécessitent un minimum d'activités de formation des maîtres. De plus, on a de plus en plus recours à cette méthode pour structurer le milieu scolaire. L'enseignement de la musique se caractérise avant tout par l'esprit de compétition, la discipline d'un ensemble et un haut niveau de compétence technique. Les étudiants ont souvent l'impression que la matière ne valorise pas leurs points de vue et que seuls les plus talentueux d'entre eux réussissent. C'est pourquoi beaucoup se sentent aliénés et abandonnent les programmes de musique. Dans cet article, l'auteur analyse les avantages de l'apprentissage coopératif et il applique les principes de l'apprentissage en équipe pour restructurer une salle de classe de musique en un milieu plus interactif et participatif.

> Students may feel that they can get shoddy work past their teachers, but not their peers, the way a musician might feel he or she could get by with a less than perfect performance in the orchestra that would be immediately noticed in an individual lesson. (Slavin, 1983, p. 56)

Bernard W. Andrews

In most music classrooms, large group instruction is the prevalent form of instruction. The traditional task-incentive structure of this format has the students learning individually, competing for grades, and challenging their peers for a higher position (e.g., second to first clarinet). In such an environment, where competition, ensemble discipline, and technical proficiency are highly valued, helping and encouraging behaviours among students are not likely to occur. In contrast, organizing a class into teams alters the competitive task-incentive structure. In a team environment, students are more likely to give their peers support, and help them where they are in need of assistance. The purpose of this paper is to describe a potential model for music instruction adapted from Student Team Learning (STL), a cooperative learning- teaching strategy. This approach offers the potential of shifting the high level of competition between individuals in performing groups to intragroup competition where helping behaviour between peers occurs.

Within the classroom context, there are both formal and informal structures. The former include statements of goals and objectives, operating policies and procedures, and formal evaluation processes. The latter include patterns of interpersonal and group relationships, group norms, and emotional feelings, needs, and desires. Dividing a large class into small groups and focusing on team building is a useful method for gaining information about, and control of, the informal processes. An effective team utilizes discussion; members listen to each other; feelings and ideas are expressed openly; there is an ongoing self-evaluation; and most decisions are reached by consensus.

Above all, the dynamics of group interaction are cooperative rather than competitive, and the atmosphere is informal, comfortable, and relaxed. Participation on a team offers students a greater feeling of control over their course work; this in itself engenders an identification with a discipline and commitment to a program. Problem solving in a group assists individual members to learn about the technical complexities of a task, and higher quality decisions are generally reached with the combined resources and increased amount of input.

Tasks and incentives may be structured competitively or cooperatively in a classroom setting. A task may be completed individually (competitive task) for a mark (competitive incentive) or, conversely, worked at collectively (cooperative task) for a group mark (cooperative incentive). The traditional incentive system in music instruction has the students learning individually within a large class and competing for grades, which "makes helping and encouraging among students unlikely

and may lead to anti-academic norms among many students" (Coleman, 1961). In contrast, organizing the class into teams alters the traditional task-incentive structure. Team learning emphasizes cooperation within the group and competition external to it. In team competition, students are more likely to give their peers support and encouragement to succeed, and help them when they are in need of assistance. For this reason, **interteam cooperation** and **intrateam competition** have been shown to be an effective classroom reward structure, and an alternative to the class lecture format (Bronfenbrenner, 1970; Coleman, 1959: Deutsch, 1949:, DeVries & Slavin, 1978; Sherif & Sherif, 1953). Further, achievement, attitude, and friendship scores have been shown to increase through team learning contexts based on intragroup competition (Slavin & Karweit, 1984; Slavin, Leavey, & Madden, 1984; Stallings & Stipek, 1986).

DIMENSIONS OF COOPERATIVE LEARNING

Cooperative learning is defined as a teaching-learning environment where "there is positive interdependence among a group of students in the learning process and each student is both individually accountable for her or his own learning and responsible for other group members' learning as well" (Sapon-Shevin, 1992, p. 12). Generally, cooperative learning is supported in the literature because it promotes achievement and positive interpersonal and social behaviour among children (e.g., problem-solving, communication skills, sense of community) (Sapon-Shevin, 1992). Group work provides students with the time to think and talk about what they are learning, and it enables them to construct their knowledge of the world around them (Johnson & Johnson, 1984, 1987; Johnson, Johnson, & Holubec, 1987). Children can share their experiences and thoughts with teammates and, consequently, learning becomes more personal than in the traditional classroom (Slavin, 1990a).

Research on cooperative learning within the school setting demonstrates that norms in support of a goal are valued by peers (Thomas, 1957); cooperation increases retention (Sharon, 1979); cooperative groups produce more and better ideas than competitive ones (Deutsch, 1949); individuals working in cooperation learn to like one another (Deutsch, 1949; Dunn & Golman, 1966; Jones & Vroom, 1964); and group learning fosters friendships and working together (Fiedler, 1967; Haines & McKeachie, 1967; Jones & Vroom, 1964). Cooperation is more effective than competition where coordination of efforts is vital to learning (Slavin, 1977), but least effective for independent tasks

(Miller & Hamblin, 1963); and two or more students can figure out a concept faster than individuals working alone (Lemke, Randle, & Robertshaw, 1969; Laughlin, McGlynn, Anderson, & Jacobson, 1968). Because the more able students may do most of the work, productivity and learning may reveal inconsistencies. Cooperative groups may cover more material but not do any better on exams than students in competitive situations (Haines & McKeachie, 1967); more ideas may be expressed in a cooperative group, but with no difference in recall than in a competitive situation (Johnson, Johnson, Johnson, & Anderson, 1976); and on tests given on an individual basis, cooperative group members may do no better than those studying alone (Johnson, Johnson, & Anderson, 1976), and sometimes worse (Johnson, Johnson, & Scott, 1978). Cooperative strategies have been introduced across the curriculum in elementary (Hollifield, 1989) and secondary (Lockwood, 1988) settings; and have been proven to increase student achievement in mathematics (Davidson, 1985; Mevarech, 1985; Noddings, 1989); reading and composition (Dansereau, 1988; Slavin, 1990b; Stevens, Slavin, Farnish, & Madden, 1988); creative writing (Stevens, Madden, Slavin, & Farnish, 1987); social studies (Smith, Johnson, & Johnson, 1981); and industrial arts (Perreault, 1984).

The greatest strength of cooperative learning is the wide range of positive outcomes, both academic and social, that have been found in the research (Sapon-Shevin, 1992; Slavin, 1987). Further, this approach teaches students to work together (Johnson & Johnson, 1991) and assists teachers to create a caring and sharing environment (Solomon, Watson, Schaps, Battistich, & Solomon, 1990). The major problem with cooperative learning is the diffusion of responsibility. For example, it is possible "for individuals to be rewarded even if they themselves made little contribution to the group, or for individuals to fail to be rewarded even though they have done their utmost" (Slavin, 1983, p. 14). In order to combat diffusion of responsibility in society, we use the pep talk, the speech to the nation to pull together, rallies and cheering, or peer pressure. Cooperative incentive structure increases diffusion of responsibility because it reduces the chances that additional effort will be rewarded; and thus, it is also likely to reduce performance. In contrast, cooperative task structures "increase performance by increasing helping among group members to encourage one another to perform the group task" (Slavin, 1983, p. 15).

The teacher may reduce the diffusion of responsibility by holding individuals accountable to their groups. This may be achieved by making individual contributions visible and quantifiable, so that contribut-

ing and noncontributing members can be identified. For example, a group's success could be contingent upon individual scores on a theory test, performance exam, or music history quiz, which would be posted on a notice board (Kagan, 1988). By formulating team scores from individual marks and making the students' rewards dependent on the academic achievement of their peers, students are motivated to help one another towards improving their group's standing. Giving a group mark for chamber music, based on how each individual plays his or her part, encourages the 'help' in the practice sessions to focus on learning to play musically, rather than on just getting the notes right.

Overall, there is more consensus among cooperative learning research-ers than areas of disagreement. Reviewers have concluded that coopera-tive groups can and usually do have a positive effect on student achieve-ment (Slavin, 1990c). There is almost as strong a consensus that the achievement effects depend on two crucial elements: **group goals** and **individual accountability**, especially at elementary and secondary lev-els (Davidson, 1985; Johnson, Maruyama, & Johnson; Nelson & Skon, 1981; Newman & Thompson, 1987; Slavin, 1983,1988a). With group goals, teams must work together to earn indicators of group success, such as recognition, grades or rewards in a context that is described as a cooperative task-incentive structure. For individual accountability, the group's success is dependent on the learning of all group members. Not all researchers, however, are totally convinced, claiming that at the college level there is some evidence that students can engage effectively in cooperative learning without group goals or individual accountabil-ity, but more research is needed in this area (Dansereau, 1988). An-other area of disagreement is the value of competition. In team models of cooperative learning, team identity is used to foster accountability to peers, and the potential of winning is used to motivate effort (Slavin, 1986). There are detractors who argue that intragroup competition in the classroom impedes achievement and long-term interest in learning (Johnson & Johnson, 1989; Kohn, 1992; Nicholls, 1989). However, placed within a controlled context, there is evidence that intrateam competition improves personal achievement, especially where group goals and personal accountability are emphasized (Slavin & Karweit, 1984 & 1985; Slavin, Leavy, & Madden, 1984; Stallings & Stipek, 1986; Slavin, 1990d). Newman and Thompson (1987), in their review of cooperative learning strategies, state:

> The pattern of results supports the importance not only of a coopera-tive task structure, but also of group rewards, of individual account-ability, and probably of group competition as well.

ADAPTING STUDENT TEAM LEARNING TO MUSIC INSTRUCTION

Among the most widely used cooperative learning strategies are those of Student Team Learning (STL) developed by Robert Slavin, David DeVries, and Keith Edwards at Johns Hopkins University (Slavin, 1980a, 1988b). The methodology focuses on four strategies that explore the possibilities of cooperative task and cooperative incentive structure: Student Teams Achievement Divisions (STAD), Teams-Games-Tournament (TGT), Team Assisted Individualization (TAI), and Jigsaw. STAD involves organizing the class into teams (four or five students) of mixed ability who work in pairs on assignment worksheets. At the end of the unit, each student individually completes a quiz. Team scores are based on individual improvement, that is, the difference between the previous week and current tally, and the team is recognized in a newsletter. In TGT, students play academic games with members of other teams who are comparable in past performance, and scores are calculated on the number of games won. This form of equal competition allows students of all levels to contribute maximum points to their teams. TAI requires team members to work in pairs, using programmed materials. Skill sheets are marked by team-mates; tests are scored by student monitors with the numbers of tests completed; and marks are combined to formulate a team score. In Jigsaw, the members of different teams meet in groups to study a portion of a lesson and become experts in an area. On returning to their own teams, each member teaches his or her group the material learned in the expert groups. Then, individual quizzes covering all the topics are distributed by the teacher, and team scores are calculated from individual marks.

STL is most successful when the teacher uses a moderately high amount of structure in the instructional environment; where there is a regular schedule of learning activities and well-specified learning objectives; a system of clear accountability for performance among team members and a well-defined group reward system is established; and recognition is provided for successful groups (Slavin, 1980b). Slavin and Karweit investigated the effectiveness of STL, and they concluded that the various strategies produced positive outcomes on student friendships, liking of school, self-esteem, and language and reading achievement (Slavin & Karweit, 1981). Their findings replicated earlier studies which found that cooperative learning increases students' liking of school and number of friends, and improves self-esteem, social confidence, and academic abilities (Slavin, 1980c). Studies have also shown team learning improves human relations and reduces minority group

isolation (Michael, 1982; Roberts, 1982). Also, difficult students prefer team learning over traditional teaching methods (Manos, 1988); and interracial exposure is increased with a team approach (Rossell, 1983). Team learning has been introduced in such diverse areas of the education field as special education (Allen & Vansickle, 1984; Kansas City School District, 1985), multicultural education (Conrad, 1985), minority group achievement (Frechtling, 1984), and native education (Swisher, 1990).

STL cannot be directly transferred to music education without some modification. Instrumental music involves both performance and nonperformance studies and utilizes performing, creating, and listening activities, whereas the work of Slavin, DeVries, and Edwards is primarily concerned with academic learning. For example, TGT would not be appropriate for individual creative activities, such as improvising or composing. Such activities cannot be suitably structured in a game format with winners and losers. Further, musical groups can seldom be organized on either an evenly-mixed or purely-equal ability basis as required for STAD or TGT, respectively. To a large extent the teacher is limited: chamber ensembles must be organized according to the requirements of a particular instrumental grouping (e.g., a brass quintet requires two trumpets, a French horn, a trombone, and a tuba); the playing standard of each section (e.g., flutes vs. clarinets) can vary considerably; and mini-bands (i.e., groups that duplicate the class instrumentation on a smaller scale) depend more on the exigencies of the score than on the students' abilities. Further, the large ensemble format prevalent in music classrooms is structured on a competitive task-incentive structure (Andrews, 1985; Rose, 1990). Music students compete for grades and for their position (first chair, second chair, etc.) within the musical organization (Benner, 1972; Dodson, 1989). Consequently, many students feel that the discipline does not value their point of view and, because they feel alienated, they do not remain in the programs (Ball, 1990; Shepherd, 1983). For them, the institutional music culture simply does not engender a cooperative and helping environment (Roberts, 1991; Shepherd & Vulliamy, 1983).

I have explored the use of team learning in music instruction as both a practitioner and teacher-educator and found that the basic principles of Slavin's approach – accountability to one's peers and a cooperative task-incentive structure for the group (Slavin, 1990c) – can be translated into a team approach for a variety of musical activities in a modified form. The notion of restructuring the classroom environment

was presented to me by my principal who was concerned that, like many music department heads, I was experiencing frustration administering a growing and successful music program, despite several years experience in the field. The pressure to constantly produce a number of performances each year with several ensembles resulted in my using a teacher-directed conductor approach far too often. The principal (a former physical education department head) suggested adopting a team approach to the music classroom so that the responsibility for learning could be shared with the students. I investigated small group instruction and cooperative learning and conceptualized four from the literature – Reciprocal Learning, Student Team Learning, Group Investigation, and Role-playing – that appeared appropriate to the context of musical performing groups (Andrews, 1985). I experienced considerable anxiety sharing responsibility, especially in the earliest attempts at using small groups, but overall the experience was positive both for me and the students (Andrews, 1989). These experiences convinced me of the need to document the students' experiences and adapt these approaches so that they could be realistically implemented within the unique context of instrumental performing ensembles. As a teacher-educator, I continued to refine these strategies with the assistance of student-teachers. The adaptation of the other small group approaches is detailed elsewhere (Andrews, 1993; Andrews, 1995; Andrews, 1996).

In my teaching years, I found that the subject-specific nature of the STL strategies restricted their usage with performing groups. However, by adopting an eclectic approach to delivery, implementation became feasible. Musical teams were organized on a sectional, chamber grouping or mini-band basis, and they undertook an assignment at a work station over a given period of time. On a designated day, each team presented its findings (e.g., a musical performance, group improvisation, or the results of a listening quiz) to me and I scored the results. Each student received an individual mark for her or his work which contributed towards the team score. When the groups were of equal ability, the scoring was cumulative and represented a comparison of each team's achievement (after TGT and TAI). When the teams were of unequal ability, the scoring reflected improvement. Each team's achievement was judged against the previous assignment and points allocated for the degree of improvement (after STAD). I found the focus on improvement particularly important for beginning instrumentalists. For example, when I compared the attitudes of two classes of grade 9 experienced instrumentalists to two classes of grade 9 beginners,

the experienced players enjoyed the challenge of intragroup competition. However, the beginners lacked self-confidence and required a high degree of encouragement. Consequently, the improvement emphasis was much more effective with them, and it resulted in a higher number of them continuing to take music as an option in grade 10 than was the case in previous years.

Later, as a teacher-educator responsible for instrumental music certification, I collaborated with teacher-candidates during a four-year period to refine the adaptation of STL to music instruction through reflective journals and practicum supervision. We found that it was essential to adopt a step-by-step approach to prevent discipline problems occurring. Class performing groups of thirty-five students traditionally operate with a conductor and rehearse the music all together (in the manner of a professional ensemble, such as a symphony orchestra). Students were not familiar with small group learning and had to be provided with specific instructions. Consequently, a three-phase plan was articulated where students were taught to **practice** their assignment, **share** their ideas, and **present** their findings.

In planning a team lesson, the teacher-candidate identified a musical objective, selected an appropriate activity, and designated the teams (either a chamber ensemble, section or mini-band as outlined previously). For example, each team would be required to demonstrate articulation skill (objective) by performing an *étude* or study (activity). During the lesson period, each team worked on the articulation study in a designated area, such as practice rooms, music office, or different areas of the bandroom, away from other teams. In the **practice** session, team members were expected to cooperate and **share** their expertise by: 1) controlling their own operating procedures (i.e., initiation, pacing, and adjustments; 2) focusing on the sensory, technical, and expressive qualities of different articulations; and 3) making constructive comments that contributed to the improvement of each team member's skill. The teacher-candidate circulated and coached each team to ensure that members directed their attention to the appropriate learning objective and helped their peers in a positive manner. During the latter part of the class, or alternately the next period, each group was provided with the opportunity to **present** their version and demonstrate mastery of the *étude*. Class members were encouraged to make constructive comments, and the teacher-candidate provided comments on pertinent points concerning execution and scored each group member's performance.

As I had experienced in my own teaching, the teacher-candidates confirmed that if the teams were of equal ability, it was more effective to have each team member's mark accumulate to provide a team score as they enjoyed the challenge of intragroup competition. However, if the teams were of unequal ability, points were allocated to each individual, based on their improvement, and these points accumulated to formulate the team score. The sample of a musical passage from a grade 9 band class in Table 1 illustrates how equal and unequal groups can be scored by a teacher.

There were three key issues that developed in refining and adapting STL to music instruction: logistics of implementation, shifting the role of the teacher, and ensuring positive peer interaction. Teacher candi-

TABLE 1. Student team learning: Scoring sample

ARTICULATION STUDY SEGMENT

TOTAL ARTICULATIONS = 10

Equal Groups (Achievement)

Team 1	Correct	Possible	Team 2	Correct	Possible	Team 3	Correct	Possible
Jane	8	10	Amy	8	10	Chris	4	10
Fred	6	10	George	7	10	Tom	7	10
Susan	4	10	Ted	8	10	June	6	10
Barry	5	10	John	3	10	Ed	6	10
David	6	10	Leroy	6	10	Alice	7	10
TOTALS	29	50		32	50		30	50

Unequal Groups (Improvement)

Team 1	Previous	Correct	Points	Team 2	Previous	Correct	Points
Ed	6	8	4	Tom	8	7	-2
Susan	4	8	8	Alice	6	6	0
Leroy	6	6	0	Grace	7	8	2
George	3	5	4	Fred	6	9	6
Lewis	7	5	-4	David	7	9	4
TOTALS			12				10

dates reported that often the logistics of the school environment were not conducive to small group instruction. Sometimes it was simply difficult to organize musical teams where no studios were available. Among the solutions rendered in university classes and applied in practice were: 1) timetabling music classes during the lunch periods when additional classrooms were available; 2) the use of back halls and stairwells (a recurring tradition in music education); and 3) supervising practice sessions before and after school, thus reserving class time for presentations. Teacher-candidates found the coaching role most problematic as they were comfortable in a teacher-directed conductor environment. Consequently, there was a tendency to "conduct" the teams in the helping sessions rather than getting off the podium and assisting from the sidelines. To overcome this tendency, the teacher-candidates received instruction on the organization of small groups and on techniques of effective coaching. Further, candidates experienced some frustration when encouraging their students to focus on constructive suggestions rather than critical comments (a characteristic of performing ensemble instruction). For example, in one small group I observed, a group leader commented to a team member, "You stink!" when referring to the playing of a particular passage. This completely befuddled the teacher-candidate, who was advised during the break to instruct the team members to focus their comments on the music and not at the person, and to do so more constructively.

DISCUSSION

In the curriculum literature, there is much research that focuses on documenting the realities of development and implementation for the purpose of generating more effective ways of improving instruction (Harris, Bell, & Carter, 1981; Guba & Lincoln, 1981; Patton, 1987). The naturalistic-formative approach outlined in this paper offers the opportunity to obtain an in-depth understanding of how instruction can be effectively designed, developed, supported, and adapted. There is a closeness to the classroom which is more defensibly developed within a qualitative paradigm. As Patton (1987, pp. 18-19) states:

> The qualitative-naturalistic-formative approach is especially appropriate for programs that are developing, innovative, or changing, where the focus is on program improvement, facilitating more effective implementation, and exploring a variety of effects on participants. This can be particularly important in the early life of a program or major points of transition.

In adapting STL to music instruction through a naturalistic-formative approach, some of the controversial issues that permeate the cooperative learning literature emerged.

Competition within a cooperative learning environment

In the literature on cooperative learning, there is considerable debate concerning the worth of competition within the cooperative learning paradigm. Essentially, there are those who argue that intragroup competition increases student achievement and motivation (Slavin & Karweit, 1984; Slavin, Leavy, & Madden, 1984; Stallings & Stipik, 1986), and there are others who suggest that the thrill of team competition also offers a diversion from the restrictions of the traditional classroom environment (Kagan, 1988; Noddings, 1989). In contrast, there are researchers who claim that the purpose of cooperative learning is to help one another, thereby engendering a feeling of total classroom cooperation (Johnson & Johnson, 1986; Johnson, Johnson, & Holubec, 1986). Proponents of the personal and social benefits of a cooperatively structured classroom claim that competition sabotages relationships and undermines self-confidence (Johnson & Johnson, 1989; Kohn, 1992; Nicholls, 1989). In a comprehensive review of cooperative learning, Newman and Thompson (1987) concluded that its effectiveness was dependent upon a cooperative task structure, group rewards, and probably group competition. Such a finding reinforced the intensity of the debate among researchers and suggests that the issue of intragroup competition is very much a philosophical difference over the moral value of competition (Noddings, 1989).

In contrast to the subject matter of research studies to date, music classes are predominantly characterized by performing groups which foster a high level of internal competition and focus on technical mastery. Music students compete for positions within a section (i.e., first, second, third, or fourth chair); sections compete for recognition within the concert band, symphony orchestra, or stage band (i.e., Which section is the best?); and all these instrumental ensembles perform in concerts and compete at festivals for prestige and prizes (i.e., Who has the best ensemble?) (Benner, 1972; Dodson, 1989). Indeed, the history of the growth and success of music instruction in elementary and secondary schools is intimately linked with the importation of the competitive festival system from Europe and its effective implementation throughout North America (Fenwick, 1951; Ford, 1981; Steinecker, 1981).

In reality, the implementation of a cooperative learning strategy without some element of competition is not likely to be supported by music teachers. The lack of competition could be viewed as a hindrance to building a successful performing ensemble, especially when there is a strong belief that the highest levels of musical excellence can only be achieved through festival performance or international competitions (Steinecker, 1981). At the same time, it must be recognized that excessive competition has created serious problems for music programs: musical understanding has suffered at the expense of acquiring technique (Ball, 1990; Benner, 1972; Steinecker, 1977); the music class is not seen as a helping environment (Roberts, 1991; Shepherd & Vulliamy, 1983); and students often feel alienated because there is not the opportunity for them to express a personal point of view (Roberts, 1991; Shepherd, 1983). Consequently, many students drop out of the programs (Ball, 1990; Shepherd & Vulliamy, 1983). For this reason, the intragroup competition in STL offers the possibility of balancing the demand for technical excellence achieved through competition with the needs of students to share ideas and express their views with team members.

Changing the role of the music teacher

Historically, the music teacher has functioned in the role of a conductor utilizing a highly-organized teacher-directed approach to music instruction (Andrews, 1985; Benner, 1972; Erbes, 1978). In this capacity, one controls the flow of the music through gestures and facial expression, and one is intimately connected to the interpretation of the performance that the audience experiences. In contrast, small group instruction requires that a teacher assume a coaching role. In this capacity, one is not directly involved in the "action" but must operate from the sidelines. A coach must monitor students' activities to ensure that team members stay on-task, that all members participate, and, above all, that learning does not regress to imitation or rote activity. As Moore (1970, p.110) notes:

> Coaching should strive for the production of insights. If a player understands the essential principle of an act, he can generalize and transfer his learning from an original situation to one in which the elements are essentially the same as the original.

Getting off the podium and assuming a coaching role represents a significant adjustment for music teachers. For STL to operate effectively in music instruction, however, it is essential that this shift in role

occur. I found this process quite disconcerting (Andrews, 1989), as did those teacher-candidates in my classes who explored cooperative learning in their classes (Andrews, 1991). Such feelings are consistent with the experiences of others who implement these strategies. For this reason, many teachers who attempt cooperative learning utilize teacher-directed small group instruction rather than assisting the group in a coaching role (Noddings, 1989). Cooperative learning reduces control and predictability in the classroom: "The traditional model of teaching amounts to a rehearsed solo performance by the instructor whereas cooperative learning not only offers instruments to everyone in the room but invites jazz improvisation" (Kohn, 1992, p.42). However, the benefits of shifting from conductor to coach and from teacher-directed instruction to cooperative learning are substantive. Learning not only occurs when a student makes sense of the musical score, but it can also happen as students interact with each other. One now has allies in instruction — thirty or more young minds and hands that can contribute to the solving of musical problems and the development of cohesive and meaningful musical interpretations.

Positive interdependence among music students

The central aspect of cooperative learning is positive interdependence; students are linked together in their learning endeavours. Learning activities are selected in such a way that every student's effort is required and is significant. Through positive interdependence, students interact and work together to ensure that all of them succeed. Traditionally, music students have had little opportunity to provide input into musical decisions or share their experiences (Ball, 1990; Shepherd, 1983). The stress on individual accomplishment demonstrated through technical mastery has created a classroom environment where helping behaviours are not commonplace. The shift from audience (i.e., receiving information) to participant (i.e., making decisions) is dramatic for students who have spent upwards of seven years enrolled in instrumental classes that are operated in a traditional large-group format. For example, in my first experience with cooperative learning, I asked the guidance head to assist a student committee which was charged with the responsibility for administering the Jazz Invitational. He reported back to me a week later in absolute frustration, asking me why was it that my music students could not sit around a table and reach an agreement on anything. I was not surprised — it was the first time I had provided them with an opportunity to accept responsibility and make decisions.

CONCLUDING COMMENTS

The cooperative atmosphere in STL engenders a higher level of learner participation and input than do the traditional teacher-directed forms of instruction. Further research will need to be undertaken to determine the degree of effectiveness of STL in a skill-based subject such as music, and also to explore such issues as retention, student motivation, and friendship patterns. It appears that STL would be a useful strategy for capitalizing on peer support and encouragement. Peers impact quite strongly on behaviours during the early teen years, a period when many are enrolled in instrumental music program. These students are undergoing a period of self-delineation where there is a tendency to rebel against most forms of authority. By utilizing a cooperative task-incentive structure and making students accountable to their classmates, the teacher can increase the possibility of learning becoming a peer norm. This will reduce somewhat the tensions and disruptions that tend to occur in the classroom at this stage of development. Further, music teachers can catalyze this change and assist their students to understand that shared power and collective success are meaningful ways to build viable ensemble programs, and, more importantly, valuable and meaningful ways to live together. Such an approach promotes those broader skills deemed essential for the twenty-first century: collaboration, teamwork, and systems thinking (as outlined in *The Common Curriculum*, Ontario Ministry of Education, 1995) "With that experience and consciousness of the prices and benefits of competition and cooperation in our society, students can determine how to work toward a future that will serve all people as well as cooperative learning has served all of them" (Kohn, 1992, p. 25).

REFERENCES

Allen, W., & Vansickle, R. (1984). Learning teams and low achievers. *Social Education*, 48(1), 60-64.

Andrews, B.W. (1985). An alternate approach to music instruction. *Teacher Education*, 26, 61-70.

Andrews, B.W. (1989). The case of the missing time. *Canadian Music Educator*, 30(4), 21-23.

Andrews, B.W. (1991). Re-shaping music teacher education for the 1990s. *The Recorder*, 32(4), 129-132.

Andrews, B.W. (1993). Group investigation: A pedagogical scenario. *Canadian University Music Review*, 32, 93-103.

Andrews, B.W. (1995). Personalizing music instruction. *Canadian Music Educator*, 36(6), 7-13.

Andrews, B.W. (1996). Musical role-play: A problem-solving approach. *General Music Today*, 9(2) 4-8.

Ball, C. (1990). Music education's missed opportunities. *Design for Arts in Education*, 91(6), 49-52.

Benner, C.H. (1972). From research to the music classroom. (No. 2). Washington, DC: Music Educators National Conference.

Bronfenbrenner, U. (1970). *Two models of childhood*. New York: Russell Sage Foundation.

Coleman, J.S. (1961). *The adolescent society*. New York: Free Press.

Coleman, J.S. (1959). Academic achievement and the structure of competition. *Harvard Educational Review, 29*, 339-351.

Conrad, B. (1985). Multicultural education through student team learning. *Journal of Staff Development, 6*(2), 60-66.

Davidson, N. (1985). Small-group learning and teaching in mathematics: A selected review of the research. In R.E. Slavin, S. Sharan, S. Kagan, R. Hertz-Larowitz, C. Webb, & R. Schmuck (Eds.), *Learning to cooperate: Cooperating to learn*. New York: Plenum.

Dansereau, D.F. (1988). Cooperative learning strategies. In E.E. Weinstein, E.T. Goetz, & P.A. Alexander (Eds.), *Learning and study strategies: Issues in assessment, instruction and evaluation*. New York: Academic Press.

Deutsch, M. (1949). An experimental study of the effects of cooperation and competition upon group process. *Human Relations, 2*, 199-231.

Dodson, T. (1989). Are students learning music in band? *Music Educators Journal, 76*(3), 25-29.

Dunn, R.E., & Golman, M. (1966). Competition and non-competition in relation to satisfaction and feelings toward own group and non-group members. *Journal of Social Psychology, 68*, 299-311.

DeVries, D., & Slavin, R. (1978). Teams - Games - Tournaments: Reviews of ten classroom experiments. *Journal of Research and Development in Education, 12*(1), 29-36.

Erbes, R. (1978). I used to direct my rehearsals like a drill sergeant. *Music Educators Journal, 65*(2), 50-53.

Fenwick, G.R. (1951). *The function of music in education*. Toronto, ON: W.J. Gage.

Fielder, F. (1967). The effect of inter-group competition on group member adjustments. *Personnel Psychology, 20*, 33-44.

Ford, C. (1981). *Canada's music: An historical survey*. Montréal, QC: GLC Publishers.

Frechtling, J. (1984). A review of programs and strategies used in American school systems for improving student achievement. Report prepared for the Department of Educational Accountability, Montgomery County Public Schools, Rockville, MD.

Haines, D., & McKeachie, W. (1967). Cooperation versus competitive discussion methods in teaching introductory psychology. *Journal of Educational Psychology, 58*, 386-390.

Hollifield, J. (1989). Children learning in groups, and other trends in elementary and early childhood education. ERIC Clearinghouse on Elementary and Early Childhood Education, Urbana, Ill.

Johnson, D.W., & Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Co.

Johnson, D.W., & Johnson, R.T. (1984). *Cooperation in the classroom*. Edina, MN: Interaction Book Co.

Johnson, D.W., & Johnson, R.T. (1974). Instructional goal structures: Cooperative or individualistic. *Review of Educational Research, 44*, 213-240.

Johnson, D.W., & Johnson, R.T. (1987). *Learning together and alone: Cooperative, competitive and individualistic learning*. (Second Edition). Englewood Cliffs, NJ: Prentice-Hall.

Johnson, D.W., & Johnson, R.T., & Holubec, E. (1987). *Circles of learning: Cooperation in the classroom*. Edina, MN: Interaction Book Co.

Johnson, D.W., Johnson, R.T., Johnson, J., & Anderson, D. (1976). The effects of cooperative versus individualized instruction on student behaviour, attitude towards learning, and achievement. *Journal of Educational Psychology, 68*, 446-452.

Johnson, D.W., Maruyama, G., Johnson, R.T., Nelson, D., & Skon, L. (1981). Effect of cooperative, competitive and individualistic goal structures on achievement. *Psychological Bulletin, 89*, 47-62.

Johnson, D.W., Johnson, R.T., & Scott, L. (1978). The effects of cooperative and individualized instruction on student attitudes and achievement. *Journal of Social Psychology, 104*, 207-216.

Jones, S.C., & Vroom, V. (1964). Division of labour and performance under cooperative and competitive conditions. *Journal of Abnormal and Social Psychology, 68*(3), 313-320.

Kagan, S. (1988). *Cooperative learning: Resources for teachers*. Laguna, CA: Niguel.

Kansas City School District (1985). Evaluation of the school within a school. Internal report prepared by the Kansas City School District, Kansas City, Mo.

Kohn, A. (1992). *No contest: The case against competition*. Boston: Houghton Mifflin.

Laughlin, P.R., McGlynn, R., Anderson, J., & Jacobson, E. (1968). Concept attainment by individuals versus cooperative pairs as a function of memory, sex and concept rule. *Journal of Personality and Social Psychology, 8*, 410-417.

Lenke, E., Randle, K., & Robertshaw, C.S. (1968). Effects of degree of initial acquisition, group size and general mental ability on concept learning and transfer. *Journal of Educational Psychology, 4*, 26-34.

Lockwood, A.T. (1988). Cooperative learning. *National Center on Effective Secondary Schools Resource Bulletin, 4*.

Manos, M. (1988). Youth development project: Preventive intervention in delinquency. Three year evaluation report, 1984-1987 by the Center for Youth Research, University of Hawaii, Manoa.

Mevarech, Z. (1985). The effects of cooperative mastery learning strategies on mathematical achievement. *Journal of Educational Research, 78*(6), 372-377.

Michael, C.B. (1982). Student team learning: An educational equity tool. *Tennessee Education, 12*(1), 26-32.

Miller, L.K., & Hamblin, R.J. (1963). Interdependence, differential rewarding and productivity. *American Sociological Review, 28*, 768-778.

Million, S., & Graham, P. (1986). The multiple-strategies model for effective teaching: Bridging the gap between inservice training and classroom practice. Paper presented at the Annual Conference of the National Council of States on Inservice Education, Nashville, TN.

Moore, J. (1970). *The psychology of athletic coaching*. Minneapolis, MN: Burgess Publishing.

Newman, F., & Thompson, J. (1987). *Effects of cooperative learning on achievement in secondary schools: A summary of research*. Madison, WI: National Center on Effective Schools.

Nicholls, J.G. (1989). *The competitive ethos and democratic education*. Cambridge: Harvard University Press.

Noddings, N. (1989). Theoretical and practical concerns about small groups in mathematics. *The Elementary School Journal, 89*(5), 607-623.

Ontario Ministry of Education. (1995). *The common curriculum*. Toronto, ON: Province of Ontario.

Perreault, R. (1990). Cooperative learning: Its effect on academic achievement in suburban junior high industrial arts classes. *Journal of Epsilon Pi Tau, 10*(1), 44-49.

Roberts, B. (1991). *Musician: A question of labeling*. St. John's, NF: Memorial University.

Roberts, J. (1982). Instructional improvement in Maryland: A study of research in practice. Report prepared by Research for Better Schools, Philadelphia, PA.

Rose, A. (1990). Music education in education: A critical analysis of reproduction, production and hegemony. Ph.D. dissertation. University of Wisconsin, Madison.

Rossell, C. (1983). A school desegregation plan for East Baton Rouge Parish (LA.). ERIC Document Reproduction Service.

Sapon-Shevin, M. (1992). If cooperative learning's the answer, what are the questions? *Journal of Education, 174*(2), 11-34.

Sharon, S. (1979). Effects of cooperative reward structures and individual accountability on productivity and learning. *Journal of Educational Research, 72*(5), 294-298.

Shepherd J., & Vulliamy, G. (1983). A comparative sociology of school knowledge. *Journal of Sociology of Education, 4*(1), 3-18.

Shepherd J. (1983). The role of the classroom music teacher: Conflict in patterns of socialization. *Canadian Review of Sociology and Anthropology, 20*, 22-43.

Sherif, M., & Sherif, C. (1953). *Groups in harmony and tension*. New York: Harper.

Slavin, R.E. (1977). Classroom reward structure: A practical and analytic review. *Review of Educational Research, 47*(4), 633-650.

Slavin, R.E. (1980a). *Using student team learning*. Baltimore, MD: Johns Hopkins University.

Slavin, R.E. (1980b). Cooperative learning in teams: State of the art. *Educational Psychologist, 15*(2), 109-115.

Slavin, R.E. (1980c). Cooperative learning. *Review of Educational Research, 50*, 315-342.

Slavin, R.E. (1983). *Cooperative learning*. New York: Longman.

Slavin, R.E. (1986). *Using student team learning*. Baltimore, MD: Johns Hopkins University.

Slavin, R.E. (1987). *Cooperative learning: Student teams. What research says to the teacher*. (2nd ed.). Washington, DC: National Education Association.

Slavin, R.E. (1988a). Cooperative learning and student achievement. *Educational Leadership, 46*(2), 31-33.

Slavin, R.E. (1988b). *Student team learning: An overview and practical guide*. (2nd ed.). Washington, DC: National Education Association.

Slavin, R.E. (1990a). Cooperative learning models for the 3 R's. *Educational Leadership, 47*(4), 22-28.

Slavin, R.E. (1990b). Learning together. *American School Board Journal, 77*(8), 22-23.

Slavin, R.E. (1990c). Research on cooperative learning: Consensus and controversy. *Educational Leadership, 47*(4), 52-54.

Slavin, R.E. (1990d). *Cooperative learning: Theory, research and practice*. Englewood Cliffs, NJ: Prentice-Hall.

Slavin, R.E., & Karweit, N.L. (1981). Cognitive and affective outcomes of an intensive student team learning experience. *Journal of Experimental Education, 50*(1), 29-35.

Slavin, R.E., & Karweit, N.L. (1984). Effects of whole class, ability grouped, and individualized instruction on mathematics achievement. *American Educational Research Journal, 22*, 351-367.

Slavin, R.E., Leavey, M.B., & Madden, N.A. (1984). Combining cooperative learning and individualized instruction: Effects on student mathematics achievement, attitudes, and behaviours. *Elementary School Journal, 84*, 408-422.

Smith, K.A., Johnson, R.T., & Johnson, D.W. (1981). Can conflict be constructive? Controversy versus concurrence seeking in learning groups. *Journal of Educational Psychology, 73*, 651-663.

Stallings, J., & Stipek, D. (1986). Research on early childhood and elementary school teaching programs. In M.C. Wittrock (Ed.), *Third handbook of research on teaching* (pp. 727-753). New York: MacMillan.

Steinecker, J. (1981). Band festivals: An adjudicator's perspective. *Canadian Music Educator, 22*(2), 17-33.

Steinecker, J. (1977). Teaching for musical understanding in the performing class. *Canadian Music Educator, 25*(1), 11-19.

Stevens, R.J., Madden, N.A., Slavin, R.E., & Farnish, A.M. (1987). Cooperative integrated reading and composition: Two field experiments. *Reading Research Quarterly 22*, 433-454.

Stevens, R.J., Slavin, R.E., Farnish, A.M., & Madden, N.A. (1988, April). The effects of cooperative learning and direct instruction in reading comprehension strategies on main idea identification. Paper presented at the annual convention of the American Educational Research Association, New Orleans.

Solomon, D., Watson, M., Schaps, E., Battistich, V., & Solomon, J. (1990). Cooperative learning as part of a comprehensive classroom program designed to promote social development. In S. Sharan (Ed.), *Cooperative learning: Theory and research* (pp. 371-402). New York: Praeger.

Swisher, K. (1990). Cooperative learning and the education of American Indian/Alaskan Native students: A review of the literature and suggestions for implementation. *Journal of American Indian Education, 29*(2), 36-43.

Thomas, E.J. (1957). Effects of facilitative role independence on group functioning. *Human Relations, 10*, 347-366.

BERNARD W. ANDREWS lectures in the Faculty of Education at the University of Ottawa. Current research interests include examining the impact of restructuring, evaluating the effectiveness of collaborative systems of curriculum evaluation, and assessing the efficacy of interactive teaching strategies in arts education.

BERNARD W. ANDREWS enseigne à la faculté des sciences de l'éducation de l'Université d'Ottawa. Ses intérêts de recherche portent notamment sur l'examen des retombées de la restructuration, l'évaluation de l'efficacité des systèmes coopératifs d'évaluation des programmes d'étude et l'évaluation de l'efficacité des stratégies d'enseignement interactif dans la didactique des arts.

Papke