

Sense of Community as a Mediating Factor in Promoting Children's Social and Ethical Development

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Abstract

This paper describes effects on students' social and ethical attitudes and behaviors of a comprehensive elementary school program that was

implemented in 12 elementary schools in six school districts in the United States over a four-year period, with an additional 12 schools serving as a comparison group. The program as a whole is designed to promote a sense of the school as a community, and includes five components: (1) a literature-based reading and language arts program centered around works that evoke empathy, interpersonal understanding, and ethical issues; (2) a collaborative approach to classroom learning; (3) an approach to classroom management and discipline that attempts to optimize student autonomy and self-determination; (4) the promotion of active parent involvement; and (5) schoolwide activities that are inclusive and non-competitive. Data, collected in a baseline year and each of three program years, included classroom observations and student and teacher questionnaires. Structural equations modeling analyses of classroom-level data showed clear support for a model in which the effects of program practices on social-ethical outcomes for students were mediated through intervening effects on students' sense of the school as a community.

Sense of Community as a Mediating Factor in Promoting Children's Social and Ethical Development

The Child Development Project (CDP) is an approach to school restructuring that seeks to revamp teaching, learning, school organization, school climate, and teachers' work environments. Over the past seventeen years, in collaboration with parents, teachers, and principals in a number of schools, we have developed a program to change: (a) the content and processes of classroom teaching; (b) the ways in which the school involves parents; and (c) the overall environment of the school as it affects both students and staff. For children, the goal of CDP is to help schools become communities in which they feel cared for and learn to care in return—communities in which they are helped to develop the practical skills needed to function productively in society, and the ethical and intellectual understandings needed to function humanely and wisely. For teachers, the goal of CDP is to help schools become respectful and inclusive communities that support their continued learning and provide opportunities for them to collaborate with one another and to contribute to decisions.

The CDP Program: The Content of Our Efforts to Change Schooling

The five components of the CDP program are derived from four, interrelated principles: (a) build warm, stable, supportive relationships; (b) attend to the social and ethical dimensions of learning; (c) honor intrinsic motivation; and (d) teach in ways that support students' active construction of meaning. Three of the program components focus primarily on the classroom, one focuses on parent involvement, and one on the schoolwide environment.

Component 1. Literature-based reading and language arts. The component of the program that focuses most directly on teaching for understanding and explicitly integrating social and ethical content into the curriculum is a literature-based reading and language arts program. The selection of books, the accompanying teachers' guides, and the supporting workshops are all designed to help teachers encourage children to think deeply about what they read, while helping them to develop greater empathy for and understanding of others, and an understanding of the humane values that need to govern our lives. Some of the selected books also describe the lives of people from varied cultures, ages, and circumstances as they deal with universal issues and concerns, helping children to empathize with people who are both similar and dissimilar to them, and to see the commonalities that underlie diversity.

The literature program uses "read-alouds" so that all students in the class have the shared experience of hearing good stories well told, and uses "partner reads" so that students have opportunities to build automaticity through reading with the support of a partner. Teachers lead their students in open-ended discussions of important issues evoked by the books, and provide structured opportunities for their students to have conversations about these with one another. Hearing and engaging with the new and different ideas expressed by one's fellow students is intended to create productive disequilibrium, thereby stimulating the continuing construction of meaning.

Component 2. Collaborative classroom learning. Our approach to collaborative learning emphasizes: (a) the importance of challenging and meaningful learning tasks; (b) the benefits of collaborating on such tasks; (c) the importance of learning to work with others in fair, caring, and responsible ways; and (d) developing the skills involved in working in these ways. Here we have not developed a specific curriculum as we did with our reading and language arts component; rather we focus on helping teachers learn the general principles by which collaborative learning activities foster students' social, ethical and intellectual development and help to make the classroom a caring community. We have developed 25 general lesson formats that can be used over and over in various academic areas, with approximately 10 sample activities to illustrate each format.

We consider two major types of experience to be essential for fostering children's academic and prosocial development: peer collaboration and adult guidance. Through their collaboration with equal-status peers, children learn the importance of attending to and supporting others, and negotiating compromises. Children can often achieve deeper understanding of a topic or activity through discussion, explanation, and working out disagreements within a group than they would by working individually. However, because peer interaction is seldom optimally collaborative, benevolent, or productive, the teachers carefully monitor groups as they work, watching for opportunities to help students to reach higher levels of collaboration, interpersonal understanding, or academic learning than they might have been able to reach unaided.

Component 3. Developmental discipline. Developmental Discipline is an approach to classroom management that explicitly focuses on building caring, respectful relationships among all members of the classroom community, and that uses teaching and problem-solving approaches rather than rewards and punishments to promote student responsibility and competence. This component is the one most explicitly directed toward developing and maintaining a culture of caring in the classroom. The teacher works to create a classroom setting in which all members—teacher, students, and aides—are concerned about the welfare of the entire group and all its members. They share common assumptions and expectations about the importance of maintaining a supportive environment in the classroom and the responsibility that each member has to make meaningful contributions to the life and welfare of the group.

We encourage teachers to look at discipline as a way to help children develop social and ethical understanding and related skills, rather than as a way to control them. For example, teachers involve children in shaping the norms of their classroom, helping them to understand that the norms are not arbitrary standards set by powerful adults, but necessary standards for the common well-being. Teachers also help children develop collaborative approaches to resolving conflicts, guiding them to think about the values needed for humane life in a group. Playground disputes become opportunities for students to learn about the needs and perspectives of other students, and to practice skills of non-violent problem-solving. Further, teachers avoid extrinsic incentives (rewards as well as punishments) so that children will learn to be guided by a personal commitment to justice, kindness and responsibility rather than by a calculation of "what's in it for me?" Teachers focus on preventing problems by helping their students anticipate and plan for them; when problems or

unacceptable behaviors occur, the teacher takes a "teaching" approach toward their resolution whenever possible. The teacher and students will try to determine the source of the problem, think about alternative solutions, and try to understand its actual or possible effects on others.

In addition to the three classroom components of the CDP program, two components go beyond the classroom.

Component 4. Parent involvement. The program incorporates two avenues for parent involvement: family participation activities that are coordinated with the curriculum and are relevant to family interests and experiences, and membership on a school "coordinating team" consisting of parents and teachers who plan schoolwide activities.

A central aspect of our parent involvement effort is called *Homeside Activities*—a series of simple conversations and activities that invite children and a parent or family friend to explore important issues that connect home and school life. For example, in "Family Folklore," an activity for fifth-graders, children ask questions to learn about their own family history; then they contribute to the classroom community by sharing some of these stories in class.

These activities are designed first and foremost to support warm and meaningful conversations between children and parents, the kind of conversations Nel Noddings (1994) calls "ordinary conversations," and to which she attributes considerable power for moral teaching. They are also designed with several additional goals in mind—to honor family traditions and culture; to provide parents with ways to talk with their children about school, thereby keeping them informed about some of the issues and events of their children's school lives; to help teachers know more about children's home life and culture in order to better teach each child; and to provide parents with a comfortable way to help their children progress academically.

Component 5. Schoolwide activities. The fifth program component is an approach to schoolwide activities that promotes inclusion, non-competitiveness, and the values of a caring community. When we first began working in schools we were surprised by the degree of competitiveness (child against child, classroom against classroom, and teacher against teacher) that pervades schoolwide activities in many schools, and so we began to work with teachers and parents to redesign these activities so as to be more clearly supportive of the ethical and intellectual values of the school and more conducive to building community. We now ask the parents and teachers on

the school coordinating team to examine their traditional schoolwide activities to assure that the activities allow participation by all, avoid competition, and respect differences but lessen hierarchical divisions between older and younger students, staff members and students, and teachers and parents.

Since they are designed by the school coordinating teams, with our advice and guidance, the specifics of these activities have varied from school to school. Activities that have been developed and used in various schools include: a *Buddies Program* in which upper-grade students, in the spirit of care and responsibility, meet regularly with younger students to engage in a wide variety of activities such as reading, attending an assembly, going on a field trip, or playing a game; a school-sponsored *science fair* which is organized cooperatively rather than competitively; "Grandperson's Day"Ñan opportunity for older family and community members to share their wisdom and experience the community's respect and appreciation; and "Family Read-Aloud" or "Family Film" nights which bring parents and their children together to read or watch a film and engage in learning activities.

Schools as Caring Communities: Educational Environments That Enhance Social and Moral Development

The remainder of this paper describes findings from a recent attempt to employ CDP in six varied school districts, and focuses on effects in the social/ethical realm. As noted, a central goal of CDP is to establish a sense of community in the schoolÑcharacterized by caring and supportive relationships among community members, opportunities to actively participate in and help influence community life, and shared goals and values. Our assumption is that active participation in a caring community meets studentsÕ basic psychological needs for autonomy, belonging, and competence, and that this, in turn, results in attachment to the school and motivation to adopt and abide by its norms and values. We therefore hypothesized that the sense of community would play a central mediating role, linking program practices with student outcomes.

Previous, cross-sectional studies by both ourselves (Battistich et al., 1997; Battistich & Hom, 1997) and several other investigators (e.g., Arhar & Kromrey, 1993; Bryk & Driscoll, 1988; Goodenow, 1993) have provided considerable evidence that the sense of school community is associated with a wide range of positive "outcomes" for teachers and students. Our own earlier research has found that the CDP program as a whole is effective at enhancing studentsÕ sense of their school as a community (e.g., Solomon, Watson, Battistich, Schaps, & Delucchi, 1996), and has also demonstrated

that the particular classroom practices of CDP are positively associated with students' sense of community (Solomon, Battistich, Kim, & Watson, 1997). However, none of this prior work has examined the hypothesis that program effects on students are mediated through effects on the sense of community. The purpose of the present research was to explicitly examine this model of program effects.

Methods

The Child Development Project was implemented in two schools in each of six districts throughout the United States. In each district a small "Implementation Team" of local staff developers and teachers worked with staff developers from the Developmental Studies Center, initially to learn the program and later to assist with staff development for other teachers in the district. Work with the Implementation Teams began in the 1991-92 academic year. Work with the entire staffs in the two program schools in each district began the following year and continued for three years (through 1994-95).

Participants and Design

Our evaluation is based on a quasi-experimental design involving two program and two comparison elementary schools in each of the six participating school districts. The districts and program schools were chosen to form a heterogeneous sample with respect to geographical region, urbanicity, and student populations. Comparison schools were chosen in each district to match the program schools as closely as possible, particularly with respect to student demographic characteristics (i.e., ethnic composition, socioeconomic status, academic achievement). Three of the districts are on the West Coast, one is in the South, one is in the Southeast, and one is in the Northeast. Of the 24 schools, 11 are in large cities, 4 are in smaller cities, and 9 are in suburban or rural communities. The schools range in size from about 300 to well over 1,000 students. The student populations at the schools range from predominantly white (less than 25% non-white) to entirely non-white, from virtually exclusively middle class (less than 3% eligible for subsidized school lunches) to virtually exclusively poor (95% eligible for subsidized school lunches), and with average academic achievement ranging from the 24th to the 67th percentile on norm-referenced achievement tests.

Baseline assessments were conducted in the program and comparison schools during the 1991-92 school year, prior to the introduction of CDP into the program schools in the fall of 1992. Annual assessments were conducted during each of the subsequent three years of program implementation.

Sample and Assessment Procedures

The major assessment procedures included classroom observations, teacher questionnaires, and student questionnaires. All classroom teachers ($n \approx 550$ -600 per year) at both the program and comparison schools were observed on four occasions during each school year, with each observation lasting approximately 90 minutes. All observers were trained to criterion in the use of a structured observation instrument (see Solomon, Battistich, Kim, & Watson, 1997), and were unaware that a particular program was being evaluated. The measures of classroom practices and student classroom behavior used in the analyses described here are from the classroom observations.

Teachers were also asked to complete an annual questionnaire, providing additional measures of classroom practices, as well as measures of teacher attitudes and beliefs and school climate.

Annual student questionnaires were administered to students in the upper three grades (grades 3-5 in four districts; grades 4-6 in two districts) who had parental consent to participate ($n \approx 4,000$ -5,000 per year). The student questionnaires provided measures of students' *sense of the school as a community*, *school-related attitudes* (e.g., liking for school), *motives* (e.g., task- and ego-orientation toward learning), and *behavior* (e.g., frequency of reading outside of school), and *personal and social attitudes* (e.g., sense of efficacy, concern for others), *motives* (e.g., intrinsic motivation for prosocial behavior), *values* (e.g., democratic values), and *behavior* (e.g., altruistic behavior). All of the measures have adequate to excellent internal consistency reliability. (A more complete description of the student questionnaire measures may be found in Battistich et al., 1995.) In this paper we are focusing on student variables in the social/ethical domain.

The questionnaire measure of students' *sense of the school as a community* includes two major components: (a) caring, collaborative, and supportive relationships among students (e.g., "students in my class work together to solve problems," "students in this class really care about one another," "my classmates care about my work just as much as their own"), and (b) student autonomy, influence, and decision-making in the classroom (e.g., "the teacher lets me choose what I will work on," "in my class the teacher and students decide together what the rules will be"). The internal consistency of the total scale was .91.

Student classroom behavior was represented by two scales derived from the classroom observations: *positive behavior among students* (e.g., student

helpfulness; student friendliness), and *student engagement* (e.g., student active participation in learning, on-task behavior).

Results and Discussion

Program Implementation

A measure of overall program implementation was constructed by combining seven scales derived from the classroom observations with four scales from the teacher questionnaire (the latter were included both because the observations did not provide adequate measures of some elements of the classroom program, particularly its more subtle aspects, and because the program is aimed not only at changing specific practices, but also at changing underlying attitudes and beliefs about students, teaching, and learning). The observation measures were: (a) *promotion of student autonomy and influence* (e.g., teacher gives students choice of activities; students participate in planning); (b) *use of cooperative learning activities* (e.g., teacher encourages helping/cooperation, percent of observed periods with students working in cooperative groups); (c) *promotion of social understanding and prosocial values* (e.g., teacher reads, uses media, assigns/leads activity focused on social understanding; teacher mentions, discusses, encourages, emphasizes prosocial values); (d) *personal teacher-student relations* (e.g., teacher makes effort to relate personally to students; teacher shows interest in student feelings about tasks); (e) *minimization of external control* (e.g., teacher use of rewards, grades, points, punishments—reflected; pervasiveness of teacher's control over students—reflected); (f) *emphasis on intrinsic motivation* (e.g., teacher talks about the inherent interest of academic activities; teacher talks about relevance of academic task/activity to other or long-range goals); and (g) *elicitation of student thinking and active discussion* (e.g., teacher asks for inferences/hypotheses; teacher emphasis on thinking/reasoning; teacher encourages students to follow-up on each others' ideas). The questionnaire measures were: (a) *optimism regarding students' learning potential* (e.g., "there is really very little I can do to insure that most of my students achieve at a high level"—reflected; "how much a student learns in my class depends more on the student's natural ability than on my teaching strategies"—reflected); (b) *trust in students* (e.g., "students can be trusted to correct their own tests"; "students can be trusted to work together without supervision"); (c) *belief in "constructivist" learning* (e.g., "students are strongly motivated by the need to understand things for themselves"; "students learn best when they are actively involved in exploring things,

*inventing and trying out their own ways of doing things*Ó); and orientation toward student autonomy (Deci, Schwartz, Sheinman, & Ryan, 1981).

The internal consistency reliability of this index, treating each of the 11 scale scores as an "item," was .74. The observation and questionnaire measures were rescaled to put all of the scales on a common metric. The scales derived from each instrument were then averaged to form two subscales ($r = .45$), and the final index was computed by averaging the observation and questionnaire subscales.

To validate this measure, our program staff identified a group of 20 program school teachers whom they considered to be particularly effective implementers of the program. We then conducted a discriminant function analysis comparing this group of nominated teachers, the rest of the program school teachers, and the comparison teachers. The three groups were clearly distinguished (Rao's $V = 158.11$; $p < .0001$), with the between-group differences being significant for each of the 11 scales ($F_s(2,322) > 11.00$, $p_s < .0001$), and with the nominated group scoring highest on each. Ninety percent of the nominated teachers were correctly classified into the "nominated" group by this empirical procedure.

Testing a mediated model of program effects. The hypothesized mediational model asserting that changes in program-relevant beliefs and practices have direct positive effects on changes in students' sense of community which, in turn, is linked to changes in various positive student attitudes and behaviors, was examined through a set of structural equations modeling analyses (e.g., Bentler, 1992). This basic model is illustrated in Figure 1.

We tested this structural model using data from the 24 participating schools. Program practices and observed student classroom behavior are inherently class-level measures. Sense of school community and student social and ethical outcomes were assessed at the student-level, but were aggregated to the class-level for the purposes of these analyses. Thus, in these analyses the same teachers are repeated across the measurement occasions (years), teaching the same grades, but the students in their classrooms are different each year.

Although aggregating scores within classrooms to examine program effects on students is not ideal, we took this approach here for a number of reasons. Due to limitations on assessment time, we were only able to assess about half of the outcome variables at all three grade levels during the four years of the study; most of the remainder were only assessed at a single grade each year. Therefore, longitudinal data for individual students were not obtained for a

large number of outcome variables. Moreover, even for those variables that were repeatedly assessed at all three grades, the cohort sequential design meant that no student had more than three years of repeated measurements. (The first longitudinal cohort had data from baseline through only the second of the three intervention years, and the second cohort had data for the three intervention years but no baseline data.) Thus, the only way to examine the hypothesized model using data from the complete four years of the study was to rely on class-level analyses.

Because we are interested in assessing changes in practices, behavior, and outcomes due to CDP, we controlled for baseline differences in these analyses. We tested the effect of program participation by estimating paths from a dichotomous indicator of program status (0 = comparison, 1 = program) to average program practices during the three intervention years (with baseline practices controlled), from average program practices to sense of community, and from sense of community to the measured outcome (both average scores during the three intervention years, with sense of community and outcome score at baseline controlled). Figure 2 illustrates the basic model examined in these analyses.

The findings for the eleven variables primarily representing students' social and ethical attitudes and behavior are summarized in Figure 3. For simplicity, the paths from the baseline scores are not shown in the figure. A separate analysis was conducted for each grade-level set of outcome variables because different subsamples of classrooms were involved (due to the assessment design described above). Thus, these analyses produced slightly different values for the linkages between program status, classroom practices, and sense of community. The mean values of these path coefficients are shown in the summary figure. Each of the paths (and path coefficients) shown in the figure represents a statistically significant relationship ($p < .05$ or better).

Overall, the findings provide considerable support for the hypothesized mediational model. Although a few of the overall chi-square tests of model fit were statistically significant, the comparative fit indices (Bentler, 1990) were all above .90, with most greater than .95, indicating good-to-excellent

correspondence between the model and the data. Moreover, with only two exceptions, post-hoc tests indicated that fit would not be significantly improved by incorporating additional paths, suggesting that program effects on student outcomes were fully mediated through effects on sense of community. The exceptions (indicated by dashed lines in the figure) were for the two measures of student behavior from the classroom observations. In one case—prosocial behavior in class—incorporating a direct path from program status (in addition to the mediated effect) significantly improved model fit. In the second—student engagement in class—classroom practices seem to have both a direct effect and an effect mediated through sense of community. Perhaps not surprisingly, it appears that with respect to students’ behavior in the classroom, the effects of the CDP program are not fully accounted for by the enhanced sense of the school as a community.

In summary, participating in CDP generally had a significant positive effect on teachers' classroom practices which, largely mediated through positive effects on students' sense of the school as a community, were linked to moderate-to-large gains in social and ethical outcome variables among students.

General Discussion

Dewey (1916/1966) was perhaps the first to argue that it was essential for schools to be democratic communities in which students could blend their individual skills and interests, and could experience the democratic process through collaborative deliberation and decision-making, thereby developing and becoming committed to common goals (see also Kahne, 1994). More recently, of course, Kohlberg developed the "Just Community" approach as a way of helping schools become democratic, moral contexts for the moral development of students (Higgins, 1991). The findings from recent research on schools as communities strongly support the value of these approaches.

Why does community appear to be such an important factor in promoting students' social and ethical development? As discussed in more detail elsewhere (Battistich et al., 1997; Solomon et al., 1997) we assume that students' experiences of fulfillment or frustration of their needs for belonging, autonomy, and competence in particular settings result in patterns of engagement or disengagement in those settings. This view is consistent with the motivational theory of self-system processes developed by Connell (1990), Deci and Ryan (1985), and their associates. However, in our view, the group does not merely provide its members with support and a feeling of belonging; it provides a focus for identification and commitment. Members feel both supported by the community and motivated to support one another. They feel personally committed to the shared group norms and values that they have helped to establish. Autonomy in a community, therefore, means not just that one has choices about personal goals, but also that one has influence on choices about the group's plans, directions, norms, and goals. Similarly, competence means that one can make effective and meaningful contributions to the group, as well as to the attainment of personal goals.

Our conception of community thus extends Connell, Deci and Ryan's psychological analysis of how the social context influences personal need fulfillment and goal attainment by adopting a social psychological focus on members' connection to the group, and on the group processes and social organizational factors that should promote mutual need fulfillment and shared goals and values. When a school or classroom functions as a community, we believe, a social context is created in which the processes that fulfill children's needs for autonomy, competence, and belonging are linked by their common focus on the group and on the individual's place within the group.

Our basic assumption is that when a sense of school community is established, students are likely to become affectively bonded with and

committed to the school, and therefore inclined to identify with and behave in accordance with its expressed goals and values. We see the sense of community and the community's norms/values as largely separate constructs. A central role of a strong community is to activate members' commitments to its norms and values, whatever they may be. This is why we want to foster in schools a caring community, a just community, and an inclusive community, where the social and ethical values necessary to a just, humane, and democratic society are explicit, and where discourse about "fairness," "responsibility," and "kindness" is as much a part of schooling as discourse about or mathematics or science.

Although the role of teacher as moral exemplar and advocate is undoubtedly important for students of all ages, for younger students, moral development requires more than moral discourse and a supportive and participatory school environment. Even when children are in a caring environment and want to treat others fairly and considerately, they are likely to fail on numerous occasions. These failures may result from their inability to see how humane values apply in a particular situation, or because they haven't yet developed the skills needed to apply those values. Thus, we believe that teachers of elementary-aged students must take an active teaching role in the area of social and ethical, as well as intellectual development—not only modeling moral behavior and engaging students in discourse about moral issues, and not only establishing a supportive and participatory environment in the classroom, but closely monitoring and guiding student interactions, intervening when there are opportunities for enhancing student understanding and interpersonal relations, helping students see the relevance of humane values to everyday situations, and helping them to acquire the skills needed to act in ways consistent with those values.

As Durkheim (1925/1961) argued, schooling plays an essential role in moral socialization as the "intermediary between the affective morality of the family and the more rigorous morality of civic life" (p. 149). Going to school represents the beginning of the child's entry into the larger society, with all its attendant responsibilities to self and others, such as the importance of following basic rules, the obligation to respect the rights of others, and a commitment to the general welfare of individuals and the community. In a caring school community—one that embodies core ethical values of kindness, respect, fairness, and personal responsibility—children develop their character by observing, experiencing, being taught, and practicing these values in their daily lives.

References

Arhar, J. M., & Kromrey, J. D. (1993). *Interdisciplinary teaming in the middle level school: Creating a sense of belonging for at-risk middle level students*. Paper presented at meeting of American Educational Research Association, Atlanta, Georgia.

Battistich, V., & Hom, A. (1997). *Students' sense of school community as a factor in reducing drug use and delinquency*. *American Journal of Public Health*, 87, 1997-2001.

Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). *Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multi-level analysis*. *American Educational Research Journal*, 32, 627-658.

Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). *Caring school communities*. *Educational Psychologist*, 32, 137-151.

Battistich, V., Solomon, D., Watson, M., Solomon, J., & Schaps, E. (1989). *Effects of an elementary school program to enhance prosocial behavior on children's social problem-solving skills and strategies*. *Journal of Applied Developmental Psychology*, 10, 147-169.

Bentler, P. M. (1990). *Comparative fit indices in structural models*. *Psychological Bulletin*, 107, 238-246.

Bentler, P. M. (1992). *EQS: Structural equations program manual*. Los Angeles: BMDP Statistical Software.

Bryk, A. S., & Driscoll, M. E. (1988). *The school as community: Theoretical foundations, contextual influences, and consequences for students and teachers*. Madison: National Center on Effective Secondary Schools. University of Wisconsin.

Connell, J. P. (1990). *Context, self, and action: A motivational analysis of self-system processes across the life span*. In D. Cicchetti & Marjorie Beeghly (Eds.), *The self in transition: Infancy to childhood*. Chicago: The University of Chicago Press.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientation toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, 73, 642-650.

Dewey, J. (1916/1966). *Democracy and education*. New York: The Free Press.

Durkheim, E. (1925/1961). *Moral education*. New York: The Free Press.

Goodenow, C. (1993a). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, 13, 21-43.

Higgins, A. (1991). The just community approach to moral education: Evolution of the idea and recent findings. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of Moral Behavior and Development (Vol. 3: Application)*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Kahne, J. (1994). Democratic communities, equity, and excellence: A Deweyian reframing of educational policy analysis. *Educational Evaluation and Policy Analysis*, 16, 233-248.

Noddings, N. (1994). Conversation as moral education. *Journal of Moral Education*, 22, 107-118.

Solomon, D., Battistich, V., Kim, D., & Watson, M. (1997). Teacher practices associated with students' sense of the classroom as a community. *Social Psychology of Education*, 1, 235-267.

Solomon, D., Watson, M., Battistich, V., Schaps, E., & Delucchi, K. (1992). Creating a caring community: Educational practices that promote children's prosocial development. In F. K. Oser, A. Dick, & J. Patry (Eds.), *Effective and responsible teaching: The new synthesis*. San Francisco: Jossey-Bass.

Solomon, D., Watson, M., Battistich, V., Schaps, E., & Delucchi, K. (1996). Creating classrooms that students experience as communities. *American Journal of Community Psychology*, 24, 719-748.

Solomon, D., Watson, M., Delucchi, K., Schaps, E., & Battistich, V. (1988). Enhancing children's prosocial behavior in the classroom. *American Educational Research Journal*, 25, 527-554.

Solomon, D., Watson, M., Schaps, E., Battistich, V., & Solomon, J. (1990). Cooperative learning as part of a comprehensive program designed to promote prosocial development. In S. Sharan (Ed.), Cooperative learning: Theory and research (pp. 231-260). New York: Praeger.
