

Chapter 9

Community in School as Key to Student Growth: Findings from the Child Development Project

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March, 2003

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Nearly 20 years ago, we at the Developmental Studies Center (DSC) began working intensively on a comprehensive elementary school improvement program aimed at enhancing students' academic, ethical, emotional, and social learning. This program is called the Child Development Project (CDP). In the course of this work, we found that helping schools to become a "caring community of learners" proved pivotal for enabling the full range of students to progress along these several dimensions of development (Schaps, Battistich, & Solomon, 1997). Along with other researchers (e.g., Bryk & Driscoll, 1988; Elias et al., 1997; Hallinger & Murphy, 1986; Hawkins & Weiss, 1985; Higgins, Power, & Kohlberg, 1984; Osterman, 2000) we now believe that this priority on community building in school provides a powerful focus for improving

educational practice, and especially for practice aimed at helping children to become caring, principled, and intrapersonally and interpersonally effective. But we also have come to believe, based on evaluation data gathered over time and described here, that a singular focus on community building may not be sufficient for promoting academic achievement, and that it must be combined and integrated with two other school improvement priorities in order to promote achievement, especially among low-income students.

In this chapter we first focus on the importance of strengthening students' sense of community in school and on how this has been accomplished in the CDP program. Then we report the findings from a series of evaluation studies of CDP. We conclude with a discussion of the relationship of community building to academic achievement.

Caring Community of Learners

Our phrase "caring community of learners" is only one of several terms used in the literature to refer to the prevalence of positive relationships, norms, and values within a school. Other researchers and theoreticians use such terms as "connectedness" (Resnick et al., 1997), "social bonding" (Hawkins & Weiss, 1985), and "social climate" (Comer & Haynes, 1999). Just as the terms themselves vary, so do their definitions and emphases. Perhaps the most critical dimension on which these conceptualizations vary is

the degree to which they refer to observable characteristics of the school's social environment, or alternatively, refer to students' subjective sense of positive connections and roles in the school. Despite these differences in conceptualization, researchers have consistently found that building students' sense of connection to and engagement in school has important benefits for a range of socio-emotional outcomes, including, for example, avoidance of problem behaviors such as drug use (Hawkins et al., this volume), student misconduct and rebellious behavior in school (Gottfredson, Gottfredson, & Hybl, 1993), social skills and assertive and cooperative behavior (Elliot, 1995), and violence and sexual activity in later life (Hawkins, Catalano, Kosterman, Abbot, & Hill, 1999).

For us, a "caring community of learners" exists when the full range of students experience themselves as valued, contributing, influential members of a classroom or school that they perceive as dedicated to the welfare and growth of all its members. We regard the key components of a caring community of learners as the following:

- Respectful, supportive relationships among students, teachers, and parents. Stable, supportive relationships with peers and adults affirm students, inspire their effort and initiative, and enable them to ask questions, venture opinions, make mistakes, reflect on experience, tackle new subjects, and

otherwise do all the risk taking that true learning entails. Supportive, mutually respectful relationships between parents and school enable communication and coordination on behalf of each student's interests, and make it easier for parents to take active roles in the school and in their children's education.

- Frequent opportunities to help and collaborate with others. We all learn by doing; we learn to do things well by doing them often; things done often can become second nature. So it follows that students should have regular opportunities to collaborate with or help others (be this academic group-work, community service, tutoring, or any other realm)--and they should be encouraged to reflect on the ins and outs and ups and downs of these interactions. They need to learn how to work well with others, and for the welfare of others, and why it feels good to do so.
- Frequent opportunities for autonomy and influence. People are invested in the choices they make for themselves; they feel little personal responsibility for the choices made for them. When students have a genuine say in the life of the classroom--class norms, study topics, conflict resolution, field-trip logistics, and so on--then they are committed to the decisions they have been trusted to make and feel responsible for the community they have helped shape.

- Emphasis on common purposes and ideals. Part of being a community is having a sense of common purpose; part of feeling included and valued in a community is living by that common purpose. When a school community deliberately emphasizes the importance of learning and the importance of behaving humanely and responsibly, students have standards of competence and character to live and learn by.

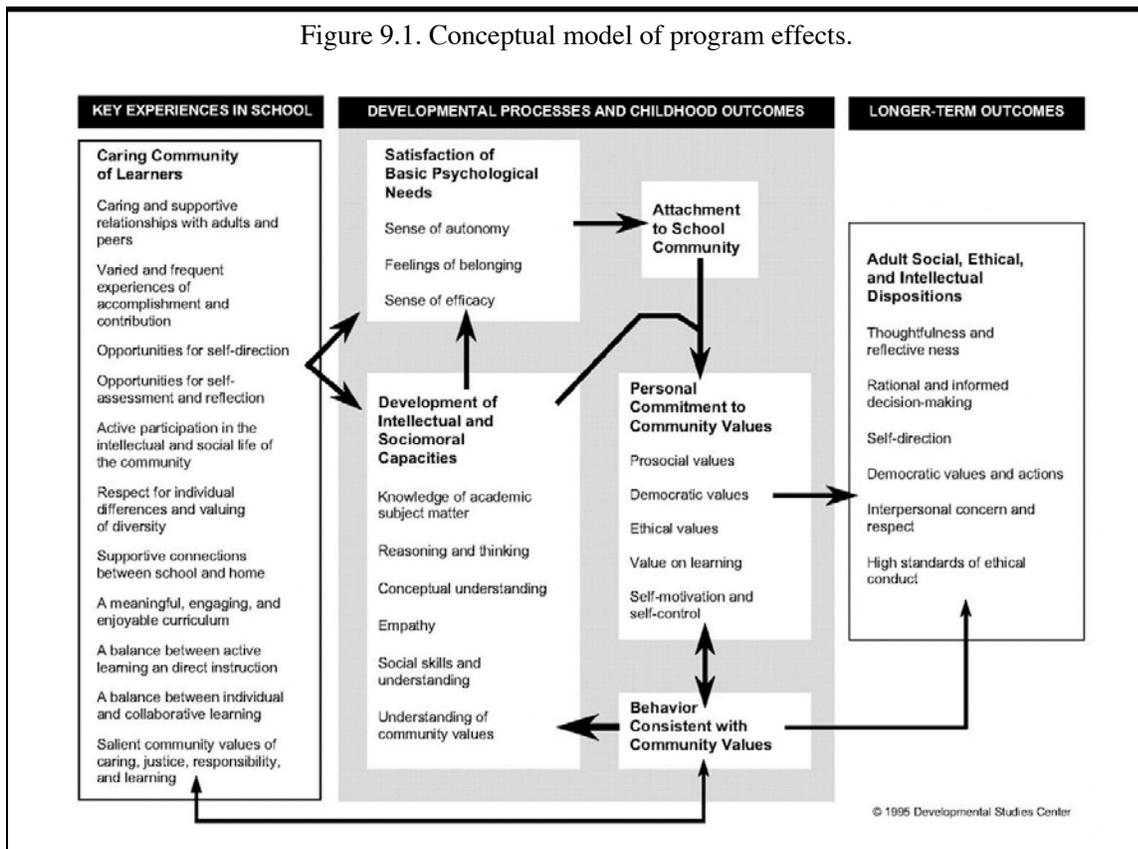
We advocate that these four principles be deliberately factored into educators' planning and decision-making about school policy, pedagogy, structure, and content. We believe that these principles need to be embodied in both the explicit and hidden curricula of the school and in the myriad choices that every member of the school staff makes every day.

How Sense of Community Influences Children's Development

We postulate along with Connell (1990) and Deci and Ryan (1985) that students have basic psychological needs for belonging, autonomy, and competence and that their level of engagement with school, or disengagement from it, depends on whether these needs are fulfilled there. When these needs are met through the creation of a school community, 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 (Solomon, Battistich, Watson, Schaps, & Lewis, 2000).

We believe that as shown in Figure 9.1, various experiences associated with participation in a caring school community help students to (a) satisfy their basic psychological needs, and (b) develop their intellectual and sociomoral capacities, including their knowledge of academic subject matter, their reasoning and thinking skills, their conceptual understanding, their empathy with others, their social skills and social understanding, and their understanding of the values of the community. The development of these intellectual and sociomoral capacities also, in turn, contributes to the satisfaction of basic psychological needs, particularly students' sense of efficacy. The development of these intellectual and sociomoral capacities also, in turn, contributes to the satisfaction of basic psychological needs, particularly students' sense of efficacy.

Figure 9.1. Conceptual model of program effects.



According to the model in Figure 9.1, when students' basic needs are met, they become attached to the school community. This attachment, combined with growing intellectual and sociomoral capacities (including understanding of the community's values), leads students to feel personally committed to the values endorsed in that school. In CDP schools, these include the values of learning, self-motivation, and self-control, as well as ethical and democratic values. Students who develop commitments to these values tend to behave in ways consistent with them. Such behaviors in turn help to solidify students' commitments to the community's values, help them to further develop their capacities, and help to reinforce the school conditions that, in combination, constitute a caring community of learners.

Finally, according to the model, children who develop long-term commitments to these values are likely to become adults with constructive intellectual and ethical dispositions. They are likely to become thoughtful and reflective, to make rational and informed decisions, to be self-directing, to maintain and act on democratic values, to be concerned for and respectful of others, to avoid courses of action that are harmful to themselves or others, and to maintain high standards of ethical conduct. These adult dispositions are also influenced by the behavior patterns developed by children, largely indirectly (through the effects of

that behavior on solidifying the commitments to community values) but also, to a degree, directly.

The CDP Program

The CDP school improvement program focuses on making comprehensive change in the classroom, in the school at large, and in the links between home and school. Until recently revised and streamlined, the CDP program included

- a reading and language arts curriculum based on high-quality children's literature drawn from many cultures, designed to help children see that reading can be both fun and informative, encourage them to explore the values and behaviors of characters in a wide variety of fictional situations, and sensitize them to the needs and perspectives of diverse others;
- cooperative learning, in which students are organized into small collaborative groups, both to master academic material and to learn to work with others in fair, caring, and responsible ways;
- an approach to discipline and classroom management which engages students in creating a warm and friendly classroom that stimulates learning, and which helps strengthen students' capacities to be self-disciplined. This approach focuses on deepening children's bonds with peers and teachers by, for example, helping children understand the effects of their behavior on others, by assuming the best plausible motives, by

encouraging children's own search for solutions and restitution, and by avoiding techniques that isolate or stigmatize individual children. It also calls for minimizing the use of coercion and extrinsic incentives and rewards, since extrinsic rewards have been shown in a number of studies to reduce intrinsic motivation (e.g., Deci & Ryan, 1985; Lepper, 1983).

- an extensive menu of home-school activities that invite families to shape and participate in the social life of the school, and share in and support their children's learning at home; and
- school service programs, such as a Buddies Program that pairs older and younger students and helps them build caring, helpful relationships with each other.

Beginning in 1982-83, we worked over a seven-year period with teachers at three elementary schools to implement the CDP program. We evaluated the program's effectiveness by following longitudinally a cohort of students in these schools and in three initially very similar schools, from their entry into the schools in kindergarten through their departure after sixth grade. Although the concept of "community" was not explicit in our initial formulation of the program, we came to see, as we refined our program and our thinking during these years, that what integrated the program's elements was the creation of a caring

school community--one that met students' basic needs and helped them to understand through direct experience the importance of values of fairness, caring, and responsibility.

CDP's Effects on Sense of Community

Our initial research on community focused first on whether the CDP program engendered a sense of the classroom as a community among students; and, if so, on how the sense of community was related to students' attitudes, values, motivation, and behavior.

Our initial self-report measure of classroom community tapped two dimensions of students' experience: (a) their perceptions that they and their classmates cared about and were supportive of one another (seven items: e.g., "Students in my class work together to solve problems." "The students in this class really care about one another." "My class is like a family."); and (b) their perceptions that they had an active and important role in classroom norm setting and decision making (ten items: e.g., "In my class the teacher and students plan together what we will do." "In my class the teacher and students decide together what the rules will be." "The teacher in my class asks the students to help decide what the class should do.").

We examined whether the CDP program was effective at enhancing students' sense of classroom community by administering this measure to students when they were in fourth, fifth, and sixth grades. In the initial longitudinal study, program students

scored significantly higher than comparison students on the measure each year, with the difference in mean scores ranging between one-third and one-half a standard deviation (Solomon, Watson, Battistich, Schaps & Delucchi, 1996). As expected, sense of community was significantly related to many positive student outcomes, either on its own or in combination with the CDP program (Solomon et al., 1996). These included both personal and social qualities (e.g., social competence, conflict resolution skill, empathy, and self-esteem) and some academic variables, such as liking for school, intrinsic academic motivation, and an open-ended measure of reading comprehension. No effects were found, however, on standardized achievement test scores, on which both program and comparison students scored very highly.

These findings from our initial study were limited to a small number of schools in a single suburban school district, with a largely white, middle-class student population. We wondered about the extent to which schools serving more diverse and disadvantaged student populations could be characterized as caring communities and, if so, whether community would be associated with a similarly wide range of positive effects. Theoretically, at least, the more diverse the population, the more difficult it might be to establish a sense of community. Yet doing so could be critical to maintaining social cohesion as our society becomes increasingly diverse. Similarly, the benefits of participating in a caring

school community could be particularly great for those students who, traditionally, have not been well served by our schools--the socioeconomically disadvantaged and socially disenfranchised.

Recent Six-District Study

A more recent study of CDP conducted in the early and mid-1990s (see Battistich, Solomon, Watson, & Schaps, 1997; Solomon et al., 2000) involved a more extensive examination of the effects of community at 24 elementary schools in six school districts across the United States--three on the West Coast, one in the South, one in the Southeast, and one in the Northeast. The schools in this sample--two program schools and two matched comparison schools from each district--were quite diverse. The schools ranged in size from fewer than 300 students to over 1,000 students. The student populations at these schools also varied greatly, with from 2% to 95% of students receiving free or reduced lunch, 26% to 100% members of minority groups, 0% to 32% limited or non-English speaking, and with average achievement from the 24th to the 67th percentile on standardized tests.

Teachers in the two program schools in each district worked to implement CDP. Baseline assessments were conducted in the program and matched comparison schools during the 1991-92 school year, prior to the introduction of CDP in the program schools in fall, 1992. Annual assessments were conducted in each of the subsequent three years, during which the program was being

gradually implemented. The major assessment procedures included classroom observations, teacher surveys, and student surveys.

We assessed students' sense of community using the measure of student autonomy and influence in the classroom from the original study, an expanded measure of classroom supportiveness, and a new measure of the supportiveness of the school environment at large (e.g., "People care about each other in this school." "I feel that I can talk to the teachers in this school about things that are bothering me."). The overall measure of students' sense of the school as a caring community included all three components.

Our assessment battery was extensive, encompassing school context and student demographic characteristics; classroom practices; classroom and school climate; teacher attitudes, beliefs, and behavior; and student attitudes, motives, behavior, and performance. These data were multilevel, and we examined the effects of school community at multiple levels of analysis (i.e., school, classroom/teacher, student), using various statistical procedures (e.g., multivariate and univariate analysis of variance, multiple regression, covariance structure analysis, and hierarchical linear modeling).

Relationships of Sense of Community to School and Classroom Characteristics at Baseline

One finding from our baseline assessment in the 24 schools was that the higher the poverty level in the community served by a

school, the lower the average sense of community among the students in that school. Our data indicate that both students and teachers were less likely to feel themselves members of a cohesive school community as the poverty level increased. The deleterious effects of poverty are well known, and another such effect may be less of a sense of connection and common purpose in school.

When analyzed at the classroom level, the baseline data showed that a number of general teacher characteristics (e.g., teacher warmth and supportiveness) and teaching practices (e.g., promotion of cooperation) were strongly related to students' sense of community and that these relationships were independent of the school's poverty level. Moreover, students' sense of community was strongly associated with numerous measures of student attitudes, motivational orientations, and behaviors. These relationships generally were reduced in magnitude when student poverty level was controlled, but many remained statistically significant. For example, students' sense of community was positively associated with their prosocial attitudes, motives, and behavior (i.e., concern for others, acceptance of outgroups, commitment to democratic values, and altruistic behavior), and conflict resolution skill (see Battistich, Solomon, Kim, Watson, & Schaps, 1995), and was negatively associated with students' drug use and involvement in delinquent behaviors (see Battistich & Hom, 1997).

Most relevant here, students' sense of community at baseline was consistently associated with a positive orientation toward school and learning, including enjoyment of class, liking for school, task orientation toward learning, and educational aspirations.

Program Implementation and Outcomes in the Six-District Study

In the six-district study, we compared program-relevant changes in teachers' classroom practice from baseline to the next three years in each of the 12 program schools, as measured against any changes in practice in their respective comparison schools. We found significantly greater changes toward implementing the elements of the CDP program in five of the 12 program schools, with average effect sizes of the differences ranging from .41 to 1.10. We did not find significant movement toward classroom implementation in the other seven program schools as measured against their comparison schools, with average effect sizes ranging from $-.06$ to $.20$. Because changes in outcomes can reasonably be attributed to the CDP program only in schools that had made progress in implementing the program relative to their comparison schools, we conducted separate analyses for the five schools that showed significant implementation gains and for the seven schools that had not.

Looking across the range of outcomes we assessed, student results were negligible or negative for the seven schools that did

not show significant gains in implementation, relative to their comparison schools. In these schools, student attitude, motivation, and classroom behavior measures generally declined relative to their comparison schools, as did some indices of achievement.

For the five high-change program schools, however, over 50% of the student outcome variables showed significant effects favoring program students, including the following:

- Effects on student attitudes, motives, and inclinations. A sizable proportion of the measured attitude variables showed positive changes from baseline for the program students (relative to the comparison students) in the five high-change schools, while none showed negative changes. The sociomoral variables showing statistically significant ($p < .05$) effects included sense of school as community, democratic values, outgroup acceptance, conflict resolution skill, intrinsic prosocial motivation, and concern for others. The academic variables showing statistically significant ($p < .05$) effects included liking for school, intrinsic academic motivation, task orientation, frequency of reading self-chosen books outside school, and frequency of reading self-chosen books in school.
- Effects on students' classroom behavior. The observation indices of student behavior did not show significant program

effects in the five schools that made progress in implementation.

- Effects on teacher reports of practices, attitudes, and perceptions. We examined the effects of participating in the CDP program on teachers' reports of their own classroom practices, attitudes about and commitment to teaching, and their views of the school "climate." Relative to comparison school teachers, program teachers in the five high-change schools reported significantly greater provision for student autonomy/influence, greater student participation in planning, reduced use of extrinsic control, reduced use of praise, and they de-emphasized control ideology.
- Effects on student achievement. We assessed achievement both with district-administered achievement tests, with a revised version of the higher-order reading comprehension assessment we had used earlier, and with a measure of inductive reasoning skill (from the Cornell Test; Ennis & Millman, 1985). We encountered problems in handling the district achievement test data because different districts used different tests, three districts changed their tests during the period of the testing, and districts differed as to the grade levels they assessed (and, in some cases, within a district over time). We therefore found it necessary to examine the standardized achievement test results separately in each district. Because

of these limitations, the achievement findings should be interpreted with some caution.

As a group, the five high-change schools showed no significant effects on the DSC measure of reading comprehension or the measure of inductive reasoning. Three of these five schools showed little effect on district-administered standardized achievement test scores, except for a negative effect on math achievement in one. The remaining two schools, however, showed large positive within-year differences from their comparison schools on a high-stakes, state-administered performance assessment. Students in one or both of these schools scored higher than those in their comparison school counterparts on reading, math, social studies, and science performance in one, two, or all three years of assessment.

An important contextual factor is worth noting here: We believe that "academic press" in this district--an emphasis on achievement for all children--may have been higher than in the other five districts because of state policies and assessment practices. Of course, this applies to the comparison schools in this district as well.

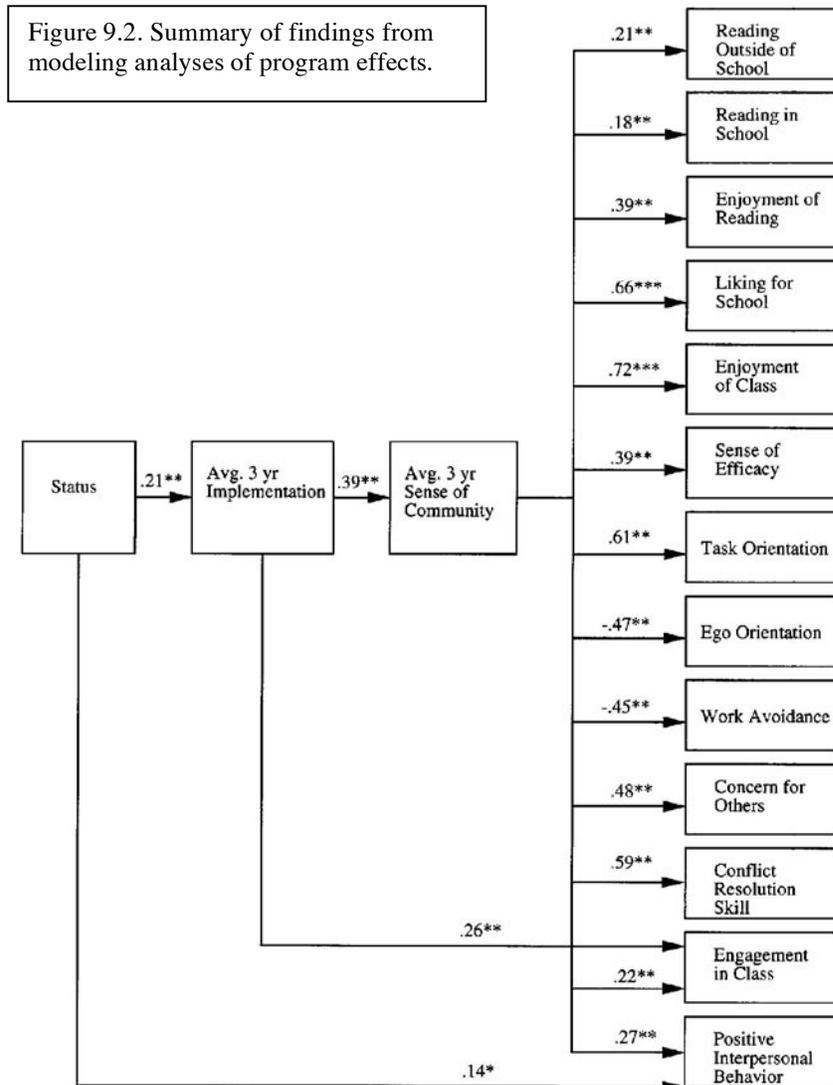
Modeling Analyses

We looked for additional evidence of the importance of community in school by analyzing the effects of CDP program implementation on student outcomes over time. In these analyses,

we combined seven of the observed classroom measures of teacher characteristics with four teacher attitude and belief measures to construct an index of program implementation. We then modeled the linkages between program participation, program implementation, sense of community, and the various student outcomes. Because we were interested in assessing changes in practices, behavior, and outcomes that were due to CDP, we controlled for baseline differences on the teacher and student measures.

Using EQS (Bentler, 1992), we tested the effect of program participation by estimating a path from a dichotomous indicator of program status (0 = comparison, 1 = program) to teacher practices in the three program years (with baseline scores controlled), and tested the effect on student outcome variables by estimating a path from sense of community to the measured outcome in the program years (with outcome scores at baseline controlled).

A summary of the findings from 13 such analyses is presented in Figure 9.2. For simplicity, the baseline effects are not shown, and paths to all 13 variables are shown in the figure, although each of these paths was actually estimated in a separate analysis.



The findings shown in Figure 9.2 indicate clearly that participation in CDP had positive effects on teachers' classroom practices, that these practices in turn influenced students' sense of community, and that these changes in sense of community brought about desirable changes in a range of student outcomes, including academic attitudes (e.g., liking for school, enjoyment of class, enjoyment of reading), academic motivation (task orientation,

engagement in class), and academic behaviors (e.g., reading in school, reading outside of school).

However, we did not find a mediating relationship when we used our available achievement data to examine the possible role of sense of community in mediating academic achievement. We examined both the model in Figure 9.2 and additional models in which engagement in class and student motivation were explored as alternative or additional mediating variables. These analyses involved district achievement data aggregated to the class level, which meant relatively small numbers of classrooms because tests were not given at all grade levels in most districts. But when we tested such models with our own measures of reading comprehension and writing quality, and with the measure of inductive reasoning, here too we did not find evidence of mediating relationships.

Middle School Follow-Up Study

In a four-year follow-up study, we tracked students from three high-change and three low-change program schools (all characterized as serving "high-risk" student populations) in three of the six districts, along with their comparison school counterparts, as they progressed through middle school. Annual assessments include student and teacher questionnaires, teacher ratings of student characteristics, and data from school records.

Former students from the low-change program schools have fared better during middle school, relative to former comparison

students. Analyses of data from the first three years of the follow-up study show statistically reliable ($p < .05$) or marginally reliable ($p < .10$) differences favoring students from former low-change program schools on 17% of 42 outcomes assessed, and no differences favoring comparison students. Thus the negative effects found during the elementary years for these schools did not continue through the middle grades.

Former students from high-change program schools outperformed their respective comparison students on 43% of the 42 outcomes. No differences favored their comparison students. Most interestingly, former program school students outperformed comparison students on two key measures of academic achievement. Their grade-point averages were significantly higher--nearly half a grade point on average--and they also scored significantly better than comparison students on district achievement tests. (It should be noted again that two of these high-change schools were in the district where academic press seemed highest because of state-level policies and high-stakes assessment practices.)

Conclusions and Recommendations

Overall, our research has shown that CDP program effectively strengthened students' sense of community in school, which in turn fostered academic motivation and aspirations, desirable character-related outcomes, social and emotional learning, and avoidance of problem behaviors. Many of CDP's benefits persisted during middle

school, and some new effects materialized, most notably a substantial effect on academic achievement.

But CDP did not consistently promote academic achievement during the elementary years. Because elementary schools are under increasing pressure to show achievement gains quickly, and to reduce the disparities in achievement among various racial, ethnic, and income subgroups, it is not enough for their “graduates” to do well in middle school. Elementary schools must now show achievement gains in third or fourth grade, and sometimes even earlier.

In light of these pressures, we have come to believe that elementary schools that wish to focus on building community must also establish two additional priorities. Specifically, they must establish a) high expectations for the learning and growth of all students, and b) important, challenging, engaging learning opportunities for all students. These additional priorities, which are sometimes labeled “academic press” and “academic support,” are subject to varying definitions and conceptualizations (as is sense of community). And so we offer our view of what is key to each:

- High expectations. Although we advocate setting high expectations for all students across domains (i.e., social, emotional, and ethical as well as academic), we do not expect that every student will progress in the same way, or at the same rate, or even to the same level in each domain. Rather,

recognizing that students differ in strengths and abilities, we advocate that schools commit to working for every student's continuing progress. This requires a school's staff to come to know each student; to track each student's learning in an ongoing way; and to adjust expectations accordingly in order to support further growth.

- Important and engaging learning opportunities. "Important" learning opportunities provide students with the skills and knowledge they need for effective learning in the various disciplines, and also to begin assuming adult roles and responsibilities. "Engaging" learning opportunities connect to students' interests and prior experiences--and in this way they tap intrinsic motivation to learn. Making learning both important and engaging involves a) teaching for both understanding *and* skills development; b) ensuring that essential content is covered *and* that students can pursue their own interests at times; and c) balancing and integrating the use of didactic and experiential pedagogies.

Other Research

Others have investigated the relative importance of sense of community and academic press for boosting academic achievement (e.g., Bryk, Lee, & Holland, 1993; Shouse, 1996; Schaps & Lewis, 1999; Hawkins, Smith, & Catalano, this volume). Most recently, Lee and Smith (1999) found that without an emphasis on academic press,

fostering community in school is inadequate for producing achievement gains among low-income, urban students. Lee and Smith concluded "Only in schools with an organizational thrust toward serious academics does social support (i.e., sense of community) actually influence learning" (p. 937).

How complicated is the task of promoting students' academic attainment and also their character and interpersonal and intrapersonal growth? A growing body of research indicates that a relatively focused reform agenda can effectively attain these multiple goals. That agenda--academic press, academic support, and a focus on building community in school--may powerfully meet the needs of both students and society. Of special interest are the indications that this agenda may be particularly beneficial for disadvantaged students. More research is needed on this topic, but challenging, engaging, and caring schools may provide the pivotal support needed by students who traditionally have been least likely to succeed.

Revised CDP

Finally, we have recently revised CDP to give it a stronger focus on literacy and especially the development of early reading skills. CDP now consists of a systematic word decoding program, a tightly focused reading comprehension program, and selected elements of the original community-building program (i.e., class meetings, buddies, parent involvement activities, and school-wide

community-building activities). We believe that the revised CDP program will be more responsive to students' academic needs and more feasible for a wide range of schools to implement. And we believe it will continue to enhance students' sense of community in school and to yield the wide-ranging, enduring benefits that follow from such a focus.

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