



The Laboratory for Student Success

***Small Learning
Communities***

prepared for
The Laboratory for Student Success

by
Diana Oxley

A Review of the Research



The Mid-Atlantic Regional Educational Laboratory at
Temple University Center for Research in Human Development and Education

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Foreword

To date, writing about small learning communities has generally been dominated by “true believers” and those with a particular point of view to put forward—the virtues of career academies, for example. Although a number of scholars have written on the topic, they have generally done so as true believers rather than as scholars, and little rigorous research has been conducted. Instead, we have a literature—often described incorrectly as “the research on small schools and small learning communities”—that is full of anecdote and argument, often very telling but without any particular order to it.

Diana Oxley’s *Review of the Research* for the Laboratory of Student Success makes an original and significant contribution to the field of small learning communities in two ways. It does a credible job of bringing order to the otherwise random body of literature. Of course, she can not make up for the lack of peer-reviewed research, but what she has done is to thresh the available literature, winnow out the best practices that have been linked to more effective small schools and small learning communities, and then present them in a logical and useful way. She herself does not call the work a “research synthesis” (because there is little or no research to synthesize) but a “collection of best practices,” of which hers is the best available.

Her second contribution is the “nest” she has written in which those best practices sit. This is not simply a collection of quotes from other people’s writing but a tightly reasoned argument for certain practices, remarkable for its brevity and lucidity, and often making telling points that are not reliably made elsewhere.

David Zuckerman, Ed.D.
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A Review of the Research

Small Learning Communities

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Several publications summarize the demonstrated positive effects of small learning communities (SLCs) on students and teachers (Cotton, 2001; Fine & Somerville, 1998; Raywid, 1996). They have helped to establish SLCs as an approach to school improvement that not only enhances student achievement but also appears to lessen the achievement gap among students from different ethnic backgrounds. In spite of their contributions to our understanding of the potential of the SLC approach, these publications beg the question of what specific organizational, curricular, and instructional practices produce these desired outcomes. In response, this *Review of the Research* brings together in one place the published findings of research and documentation that address this question. Its purpose is to identify those SLC practices that have been empirically linked and are perhaps essential to achieving desired educational outcomes.

What's in a Name?

The term applied to the practice of organizing individual high schools into a number of small learning units has undergone many changes over the past 4 decades. The terms “houses” and “schools within schools” were used to designate this practice in the 1960s, “magnet schools” and “mini schools” in the 1970s, “charter schools” in the late 1980s and 1990s, and most recently “small learning communities.” The evolution of terms is significant because it parallels the development in thinking about the crucial ingredients of effective education. The earlier terms emphasize small structure along with curricular specialization and choice, features crucial to engaging academic programs but not complete. The term “small learning community,” in contrast, encompasses these elements and more, including a focus on learners and learning and, in particular, the active and collaborative nature of teachers’ and students’ work. Furthermore, it is a designation that emphasizes the importance of autonomy and flexibility in functioning within large, rigid educational bureaucracies (Cotton, 2001), and it reflects the movement

to a student-centered curriculum, instruction, and collaboration among all members of the community (Fine & Somerville, 1998; Wasley et al., 2000).

Just as the designations for the small unit organization have evolved, so has the body of knowledge on which the practice of the small learning community (SLC) now rests. This complex form of school organization, curriculum, and instruction now begs for a stipulation of current practices and empirical validation. What specific practices must educators use to realize the SLC approach?

Inconvenient Truths

Two central ecological facts about educational organization make it necessary to stipulate SLC practices on each of three dimensions: small unit organization, curriculum and instruction, and school and district accommodation.

School organization and curriculum and instruction are mutually supportive practices, dependent on one another to realize their desired effect on student learning (Cuban, 1986; Eisner, 1988).

“Small is not enough” is a refrain of SLC initiatives across the country (Fine & Somerville, 1998; Wasley et al., 2000). Small size creates the conditions to carry out student work that is active and collaborative. However, small size is not an end in itself. Teachers who lack knowledge of and training in innovative teaching practices may not be able to envision what comes after creation of a small community. But, on the other hand, innovative curriculum and instruction are also insufficient by themselves to increase student learning. As detailed in the next section, the size of the school community, an interdisciplinary team, and common planning time are also important.

Educators who are otherwise enlightened about curriculum and instruction may still underestimate the importance of the structure within which they work (Cuban, 1993); as a result, they may overestimate the extent to which structural reforms have actually been made (Jackson, 1990). Researchers repeatedly find that implementation of the structural elements of SLCs is incomplete (Felner et al., 1997; Oxley, 2001). Members of interdisciplinary teams lack common planning time or teach only a few of their classes in the SLC; an SLC has hundreds of students

in it, offers only a few courses, or fails to admit a mix of students. Such missing structural elements prevent teachers from realizing the fruits of their planned curriculum and instruction improvements.

Significant investments of time, effort, and funds in professional development and curriculum and instruction planning are needed to make small communities small *learning* communities. Without the implementation of key SLC organizational structures, these investments are quickly dissipated, teachers become cynical, and the dismal history of school reform that faculty of almost every high school are familiar is repeated once again.

Curricular and instructional reorganization cannot be fully achieved unless the larger system of which it is a part also changes to accommodate the new practices (Cohen, 1995; Elmore, 1988).

SLCs cannot be simply added on to the existing school organization (Cook, 2000; Oxley, 2001). The larger school structures and operations limit SLCs in three ways. First, traditional practices in place at the building level often compete with those in SLCs. Administrative, counseling, and special education staff members who continue to operate at the school level carry out their roles without the intimate knowledge of students that SLC staff have. In turn, SLC staff members are unable to engage in decision-making processes and student support that would maximize their responsiveness to students' needs. Second, the simultaneous operation of old and new forms of school organization is not cost efficient. In a situation of already inadequate resources, fledgling SLCs seldom receive the level of staff, materials, and space they require to function optimally. Grants used to establish SLCs may obscure this fact, but only until the grants expire. Third, practices that are inconsistent with or contradictory to SLC practices communicate by their continuing existence that SLC practices are exceptions to more general or better "laws" governing education. The continuance of older practices implies that SLCs constitute a remedy only for certain students (e.g., students who are low achieving, in transition to high school, or in the last years of high school) or one that is possible only under special budgetary conditions.

Overprescription or Undertreatment?

Interrelationships among practices on different levels and dimensions of educational organization dictate the need to identify essential SLC practices in the areas of small unit organization, curriculum and instruction, and school and district accommodation. To some, such elaborate delineation may appear to be overprescription (Fine & Somerville, 1998), and it would be counterproductive if SLCs appeared to have too many requirements. However, full implementation of SLCs is crucial to their success and long-term maintenance. The accumulated research on school reforms of the past several decades strongly suggests that lack of

implementation, rather than inherent weakness of the model in question, dooms school reorganization efforts to failure (Cuban, 1992; Goodman, 1995; McCabe & Oxley, 1989; Muncey & McQuillan, 1993; Wehlage, Smith, & Lipman, 1992).

Therefore, it is important to recognize that the implementation of SLCs represents a complex change and a schoolwide reorganization, not merely a simple addition of school programs. All desirable SLC practices cannot be established at once or even in a year or two.

Therefore, it is important to recognize that the implementation of SLCs represents a complex change and a schoolwide reorganization, not merely a simple addition of school programs. All desirable SLC practices cannot be established at once or even in a year or two. Education that serves all students well, like democracy, is a continuous effort to improve practice by deepening and extending a highly promising approach (Senge, 2000). The payoff for comprehensive identification of essential SLC practices may

be its provision for next steps, a general direction to proceed in, and a vehicle for maintaining focus.

What Makes Small Learning Communities Work: Toward Standards for Practice

The SLC practices documented in the next section are features common to SLCs for which positive effects on student outcomes have been empirically demonstrated through research and documentation. This body of research helps answer the question of what constitutes optimal SLC practice insofar as

it establishes a link between a set of general strategies and positive student outcomes. The research does not statistically evaluate the independent effect of individual practices on student outcomes and is limited in its ability to do so. As already stated, SLC practices are interdependent (Felner et al., 1997; Oxley, 1994b). The effectiveness and implementation of practices on one dimension of educational organization depend on the implementation of others in the same and other dimensions, and it is their combined action that likely produces meaningful impact. Even so, systematic study and continuous improvement efforts can help to sift out specific strategies that best realize the generic practices identified to date.

Small Unit Organization

Research and the practice of highly successful learning communities finds that the following SLC organizational practices are linked to positive student outcomes:

- **The SLC enrolls no more than a few hundred students.**

Decades of research on school size provide substantial evidence that small high schools are more often associated with favorable student outcomes than are large high schools (Cotton, 2001; Gladden, 1998). Small high schools have unmistakably greater holding power: Students are less likely to drop out, more likely to attend, and more likely to participate in school activities (Lindsay, 1982; Pittman & Haughwout, 1987). Small high schools evidence less student disorder and violence (Garbarino, 1978; Gottfredson, 1985).

Small high schools—despite having a more restricted set of curricular offerings—are also associated with greater academic achievement than are large high schools (Fowler & Walberg, 1991), although the findings for the small schools are more mixed than they are for the large ones. Recent, precise analysis, able to tease out the effect of size from the effects of other factors that covary with school size, points out that small high schools are not only associated with higher achievement but also greater equity in achievement than are large schools (Lee & Smith, 1995). That is, the achievement gap usually found among students of certain ethnicities is reduced in small high schools.

But exactly how small should an SLC be? This is obviously one of the central questions in establishing SLCs. One study of high schools—not SLCs—suggests that a size of 600 is an appropriate target (Lee & Smith, 1997). But this finding pertains to schools with traditional curriculum and instruction organization. It is also inconsistent with a basic premise of SLCs—that all members of the community know each other—because it is impossible for teachers to know even the names of more than 500 students (Panel on Youth, 1973).

Small learning community practice counsels schools with 200–400 students as an optimum size (Cook, 2000; Fine, 1994). Some of the most successful SLCs have as few as 100 students (Ancess, 1995). The latter is comparable to Coalition of Essential Schools (Sizer, 1992) and National Association of Secondary School Principals (1996) recommendations that teachers instruct approximately 90 students at any one time. These recommended small numbers of students derive from considerations for meeting minimum standards for teaching effectively: Teachers are able to get to know students’ needs and interests and to provide regular, individualized responses to students’ work.

- **The SLC encompasses at least a half-day block of students’ instructional day.**

Small schools advocates argue that students’ entire school day must be organized within their SLC in order to give teachers the degree of autonomy and flexibility they need to be responsive to students (Fine & Somerville, 1998). Research on half-day SLCs has shown favorable effects on students’ sense of community and academic achievement (Felner & Adan, 1988; Felner et al., 1997; McMullan, Sipe, & Wolf, 1994; Oxley, 1990, 1997b). In all cases, the half-day arrangement included courses in four core academic disciplines. Students in half-day units were assessed relative to those in no unit or units organized around only one or two classes but not in comparison with students in all-day units. Consequently, it is not possible to say how much stronger the effect of an all-day arrangement may be.

It is clear from both research and practice that students register little to no sense of community from two-course blocks such as the language arts/social studies blocks frequently found in high schools (Oxley, 1990, Oxley, Croninger, & DeGroot, 2000). Moreover, splitting up a half-day equivalent of SLC classes among classes outside the SLC community also diminishes its impact.

- **The SLC encompasses at least 2 years of study in the SLC.**

Small learning communities that have attained national prominence on the basis of their students' success encompass the entire 4 years of high school study (Cook, 2000; Meier, 1995). Common to prominent high-school reform models are SLCs that extend across at least 2 years of study (Legters, Balfanz, & McPartland, 2002).

A mechanism of this success may be the cross-grade coherence of the academic program (Newmann, Smith, Allensworth, Bryk, 2001a, 2001b; Wasley et al., 2000) because students are more likely to learn when new materials build on students' prior knowledge (Bransford, Brown, & Cocking, 1999). Moreover, students are more motivated to learn when teachers make academic coursework just ahead of students' level of competence (Csikszentmihalyi & Rathunde, 1993). Teachers in multiyear SLCs can use the knowledge they gain about students in one year to shape students' subsequent learning experiences (Fine & Somerville, 1998). A second mechanism of these successful multiyear SLCs may be that they promote connections between older, more competent peer role models and younger students, another factor shown to enhance learning (Benard, 1990; Fazio & Ural, 1995).

High teacher turnover rates emerged as an enduring problem in the ninth-grade success academy, in contrast to 9th- to 12th-grade SLCs, in which teachers also taught students at other grade levels and found satisfaction in seeing students mature into graduating seniors.

Research by Quint, Miller, Pastor, and Cytron (1999) indicates that small unit organization confined to just the ninth-grade level, as in interventions designed to ease students' transition to high school, has positive but modest effects on students' academic outcomes. These researchers concluded that broader intervention was required. The Talent Development High School Model, which combines a ninth-grade success academy with 10th- to 12th-grade career academies, uses a separate transition year unit subdivided into smaller groupings and a specially designed curriculum. Ninth graders in this model passed state examinations in some areas and were promoted at higher rates than before the academy was implemented (McPartland, Balfanz, Jordan, & Legters, 1998). However, other research suggests that the Talent Development Model may not be as effective as continuous 9th- to 12th-grade SLCs (Oxley et al., 2000). Researchers

who compared ninth graders in a success academy with those in a comparable school organized into 9th- to 12th-grade SLCs reported that success academy students disliked being separated from the advanced students, and ninth graders in the 9th- to 12th-grade SLCs valued upper level students for “setting examples” and “show[ing] us around.” In addition, high teacher turnover rates emerged as an enduring problem in the ninth-grade success academy, in contrast to 9th- to 12th-grade SLCs, in which teachers also taught students at other grade levels and found satisfaction in seeing students mature into graduating seniors.

Schools that offer themed initial 9th- to 10th-grade and advanced 11th- to 12th-grade SLCs or career pathways (Allen, 2001; Legters et al., 2002) postpone transition to advanced SLCs until students reach 11th grade. In these 2-year SLCs, teachers can still capitalize on their knowledge of students from one year to the next (instead of having to start fresh with each new entering class of students) and can use upper grade students as role models. In addition, the two sets of SLCs, initial and advanced, increase students’ choices and opportunities for exploration.

A key to the success of the SLC and to improved student achievement is students’ advancing to upper level SLCs of some kind rather than to traditionally structured schools. Students and other stakeholders can readily infer from a failure to reorganize the upper grades that school leaders are not persuaded that SLCs represent a more effective form of schooling, one appropriate for advanced students as well as those with special needs (e.g., transition, remediation; Allen, 2001; Ready, Lee, & LoGerfo, 2000). Often, under these circumstances, lower grade SLCs also suffer from lack of full implementation.

- **Interdisciplinary teams of teachers share students in common.**

Traditionally organized schools, even small ones, are curriculum centered and organize teaching and teachers according to circumscribed subject areas. The SLC organizes teachers—one from each major subject area—into an interdisciplinary team that shares its students in common, creating a more student-centered form of schooling than in traditionally organized schools. These interdisciplinary teams allow for coordination of student support and instruction across core subjects. Research on learning and cognitive development (Bransford, et al., 1999; Caine & Caine, 1994) indicates that coherence in academic programs allows students to incorporate new understandings into prior knowledge and to alter prior knowledge

when necessary. Coherent programs give students recurrent opportunities to practice and apply knowledge and skills in new contexts. Cross-class as well as cross-grade teams are important vehicles for creating program coherence (Newmann et al., 2001a, 2001b; Wasley et al., 2000). Researchers find that SLCs evidence interdisciplinary collaboration and consensus (Oxley, 1997b) and instructional leadership, including program coordination (Wasley et al., 2000), to a greater extent than do traditional schools.

- **Team members instruct more than half their classload in the SLC.**

In the most successful learning communities, teachers instruct all (Cook, 2000; Meier, 1995) or at least most of their classes within their SLC. Teachers who divide their time between their SLC and classes outside their SLC run the risk of shortchanging their SLC's requirements for collaboration. Successful SLCs devote regularly scheduled time to student advisement, curriculum planning, and collaboration on problems of practice in addition to individual teacher preparation. At Urban Academy, a U.S. Department of Education Blue Ribbon School of Excellence and SLC of just 100 students, teachers devote 1 hour per week to student advising, 2.5 hours every 2 weeks to curriculum planning, and 3 hours per week to staff meetings—an average of 8.5 hours a week to noninstructional work (Ancess, 1995). Practically speaking, it is difficult for teachers to dedicate this much time to an SLC when it is not their primary commitment. In addition, the more classes SLC teachers instruct outside their SLCs, the more difficult it is to schedule common planning time with SLC team members.

- **The SLC team shares planning time in common.**

Common planning time facilitates collaboration among interdisciplinary team members. Research frequently identifies common planning time as a feature of successful teaming and academic programs linked to positive student outcomes (Felner et al., 1997; McPartland et al., 1998; Newmann et al., 2001a, 2001b; Oxley, 1997b). This is a nearly constant item on short lists of SLC practices necessary for maintaining a focus on instructional improvements (e.g., see Northwest Regional Educational Laboratory, 2003).

Among successful SLCs, common planning time comes in the form of shared teacher preparation periods during the school day, a single late-start or early-

release day each week, or a block of time during which students leave school to do community-based service or study (Meier, 1995). Common planning time does not guarantee improved teaching and learning, however. Teams must devote this time to curriculum and instruction planning and problem solving that increase program coherence and academic challenge (Newmann et al., 2001a, 2001b).

- **SLCs partner with parents and community stakeholders.**

The SLC concept of teaching and learning rests on the view that optimal teaching occurs in a context in which teachers, students, parents, and community partners know each other and share a commitment to the school’s mission (Bryk & Driscoll, 1988; Oxley, 1994b), and teachers in successful SLCs create a broad web of such collaborative relationships. The broad base of collaboration serves to expand teachers’ knowledge of students’ learning needs and the means to increase the coherence and authenticity of students’ educational experiences.

Parent collaboration allows for consistent communication of expectations and strategies for learning, which is key to program coherence and increased student achievement (Newmann et al., 2001a, 2001b). Collaboration with community partners allows teachers to pursue authentic, community-based education (Allen, 2001), including outside experts’ participation in reviewing student work (Ancess, 1995). Parent, student, and community partner participation is also vital to teachers’ reflection on practice and continuous program improvement (Christman, Cohen, & Macpherson, 1997).

- **The SLC has building space sufficient to create a base for collaboration.**

Research repeatedly finds that the physical proximity of the interdisciplinary team’s classrooms to one another is instrumental to key SLC functions. Physical proximity of teachers’ classrooms facilitates teacher collaboration (Christman et al., 1997; Wasley et al., 2000), promotes interaction among teachers and students (Ancess, 1995; Oxley, 1990), and helps to establish a separate identity and sense of community among members (Raywid, 1996).

Small learning communities may make do with a single large classroom or pair of adjacent classrooms. However, in this arrangement, teacher collaboration and students’ identification with their SLC will likely suffer. The inability to designate an adequate space may also reflect a lack of schoolwide commitment to

SLCs and the need to make painful adjustments to optimize their functioning. Other SLC requirements are likely to be compromised. In contrast, SLCs that provide a space where team teachers and their students can interact before and after class generates a feeling of belonging and a clear sense that teachers care about students, that “students learn that a school can be both educational and personal” (Ancess, 1995, p. 8).

- **Small learning community admission is driven by student and teacher choice.**

Research on and practice in SLCs indicate that their success largely depends on a self-chosen membership that shares a commitment to the SLC’s unique focus or mission (Allen, 2001; Ancess, 1995; Cook, 2000; Meier, 1995). Students’ ability to choose their SLC is consistent with a student-centered approach to education. Use of random assignment or admissions criteria to determine SLC membership eliminates the freedom students have, even in traditional schools, to match their interests with the courses they take. Traditional schools, however, offer choice in curriculum offerings at the expense of program coherence and sense of community. SLCs can offer choice at the program level—if not the course level—and, with sufficient flexibility, can also provide many choices within the program.

Students’ exercise of choice of SLCs places a premium on informing middle-school students about high-school SLC programs. Student choice also challenges teachers to develop a set of SLC programs that responds to students’ interests and offers equal challenges and opportunities for success.

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If teachers meet these challenges, the payoff appears to be more informed and empowered students and potent learning communities whose members have the opportunity to develop their interests with teachers and peers who share them. In a study of high schools organized into SLCs, researchers compared students who chose a SLC on the basis of curriculum theme with those who were randomly assigned (Oxley et al., 2000). In two study schools in which SLCs were organized

around curriculum themes and career interests, entering students reported that they chose SLCs other than those their best friends chose and got to know students they otherwise would not have met. In these schools, students developed positive identifications with SLC teachers and peers based on shared learning interests and styles. In a third study school, with transition-year units to which students were randomly assigned, students struggled to overcome their teachers' negative perceptions of first-year students and to distinguish themselves from less serious students.

- **Small learning community offerings attract a diverse group of students.**

The SLC staff members' ability to hold high academic standards for all students and to provide students an equal opportunity to succeed is vital. Randomly assigning students to SLCs neither ensures equal standards and opportunities nor engenders the kind of student motivation and interest that curricular themes do.

Successful SLCs are organized around curricular and instructional programs that appeal to diverse groups of students (Meier, 1995; Raywid, 1996). SLC programs may, intentionally or unintentionally, attract low or high achieving students, creating tensions among SLCs and long-term instability of small unit organization (Oxley, 2001; Ready et al., 2000).

The research described in the previous section suggests that small-unit organization can create communities of socially diverse students by attracting students on the basis of shared interest in the SLC's focus. Not all SLC offerings have this effect, however. In the study described above (Oxley et al., 2000), researchers also compared students in schools with SLCs organized around curricular emphases with students in a fourth school in which SLCs were organized according to differing pedagogical philosophies (e.g., cooperative learning). Students in SLCs organized by pedagogical style tended to choose an SLC on the basis of friends' choices and parents' beliefs about the SLCs' effectiveness and level of difficulty. These SLCs became identified with relatively homogeneous groups of students in terms of ethnicity, social class, gender, and academic aspirations.

Small learning communities organized around curricular themes are not immune to attracting socially or academically homogeneous groups of students. For example, Wasley et al. (2000) found that schools within schools, especially

those with mathematics and science themes, tended to attract higher achieving students than the host school's traditional classes.

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School and District Accommodation

Research and documentation of successful SLCs indicate that the following school and district accommodations are associated with more effective SLCs:

- **School administrators have particular assignments within an SLC.**

Assignment of administrators to SLCs is consistent with the idea that SLC staffs are better positioned to respond to their students' needs than are centralized staff. SLC staff members have more knowledge of their students, easier access, and a means of making consistent interventions across their students' classes. To the extent that SLC teams look out for their students' needs, they free up centralized staff members to take on instructional leadership and teaching roles within SLCs. Administrators' participation in SLCs reduces student-teacher ratios and increases the diversity of academic expertise and support available to students within their SLCs. Their participation in a particular SLC not only adds support to it but helps to transform traditional school structures that compete with SLCs in the areas of decision making and resource allocation (Oxley, 2001). In schools that have successfully implemented SLCs on a schoolwide basis, even principals serve as integral members of an SLC team (Cook, 2000; Ratzki & Fisher, 1989/1990), assuming both supervisory and teaching positions in addition to their schoolwide administrative roles.

- **Counseling staff members have specific SLC assignments.**

School counselors are assigned to particular SLCs in order to work closely with SLC teams in responding to students' needs. In this way, counselors and teachers are more likely to intervene with students in an informed and consistent manner. Staff members of successful SLCs interact with students across multiple

roles and contexts, as teacher, advisor, student admissions coordinator, and so on (Ancess, 1995; Oxley 1990, 1997b). In such communities, counselors use their individual and group process skills to help teachers organize student advisories, parent conferences, and classroom group work as well as to counsel students (Oxley, 1993). Counselors with teacher certification may also teach in the SLC.

- **Special educators and remediation specialists have specific SLC assignments.**

Teaching specialists, including special education staff members, are assigned to SLCs and work closely with the teacher teams to organize and carry out instruction and student support (Oxley, 1993, 1997a, 1997b). Specialists' integration with teacher teams replaces the traditional school practice of addressing students' learning needs in separate, specialized contexts apart from mainstream classrooms. Integrated teams with their augmented range of expertise work with inclusive classes to provide consistent instructional interventions, avoid negative student labels, and give special education students the same choices others students have. These practices are consistent with communal school organization as well as special education inclusion (Lipsky & Gartner, 1996) and the goal of the Individuals with Disabilities Education Act to meet students' needs in the least restrictive environment possible.

Unfortunately, SLCs' record of including special education students has been weak (McMullan et al., 1994; Wasley et al., 2000). Exclusion of special education students from SLCs may seem to lighten the instructional burden but actually excludes special educators with the pedagogical expertise needed to help content area specialists diversify their instructional strategies. However, there is a broad consensus that use of diverse instructional strategies holds a key to educational effectiveness (Legters et al., 2002)

- **Academic department goals are aligned with SLC needs.**

Academic department goals should support SLCs' interdisciplinary teamwork. Schoolwide, the emphasis of instructional leadership must be to accommodate interdisciplinary needs and approaches to teaching (McMullan, 1994; Ratzki & Fisher, 1989/1990). Interdisciplinary SLC teams may even operate in tandem with academic discipline-based teams that serve other school units. Both serve important ends. Discipline-based planning helps to ensure that interdisciplinary

programs incorporate important discipline-based knowledge and skills and are aligned with content standards. Experts in curriculum integration (e.g., project-based learning) do not see academic disciplines as competitors but rather the wells from which interdisciplinary programs draw (Allen, 2001; Beane, 1995).

Practically speaking, however, the operation of both SLC-based and academic discipline-based teams can create competition for reform priorities and available planning time (McMullan, 1994; Oxley, 2001). SLC teams combine teachers from different academic departments that may well prefer different pedagogical approaches, and the teams' efforts to develop authentic curricula often lead them to deviate from pacing and content of standardized, discipline-based curricula. SLC teams' curriculum development work also requires large blocks of planning time, yet planning time must be allocated to departments as well as schoolwide staff meetings. How instructional leaders resolve these conflicts is indicative of the school's commitment to SLC- and student-centered practice and plays a central role in SLC implementation.

- **Class scheduling and staffing are adjusted to enable SLC teams to establish innovative curriculum and instruction programs.**

In schools with successful SLCs, changes in class scheduling and staffing were made to allow SLC teams to implement innovative curriculum and instruction programs (Ancess, 1995, 2003; Darling-Hammond, Ancess, & Ort, 2002; Oxley 1990, 1997b; Ratzki & Fisher, 1989/1990). These programs use diverse strategies to reduce the number of students that teams instruct and to extend the amount of instructional time teams have with students. Increased instructional time with fewer students allows teams to be more responsive to individual students needs and to pursue community- and project-based learning requiring large blocks of time.

Innovative SLC programs necessitate shifts in building-level staffing and methods of scheduling classes to avoid cost increases. These shifts involve allotting more time to teaching by reducing noninstructional time, hiring dually

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certified teachers, incorporating separate remedial programs into core subject instruction, and creating more planning time for teachers. For example, in some schools qualifying for schoolwide Title I funds, staff members decided to incorporate separate reading classes into regular core subject classes and assign reading specialists to SLC teams to help organize reading across the curriculum as well as teach core subjects (Oxley, 1990, 1993). The reading classes with reduced class size were transformed into an extra period of instruction per week in each of the four core subjects. Instead of teaching five classes of students, team members taught four for the same number of periods of instruction, bringing the number of students they worked with down to 120.

In a school without federal funding, SLC team members who were implementing project-based learning were given a project period to teach in lieu of a sixth class of students. They used the project period to extend instructional time in their core subject to pursue projects. Because each SLC teacher taught one less core subject class, administrators augmented staffing in these areas through reclaiming some staff members' noninstructional time. In another transformed school, teachers in one small school worked exclusively with 100 students. Each staff member teaches and carries out multiple roles to minimize the student-teacher ratio (Ancess, 1995; Raywid, 1996).

Dual certification, which some U.S. teachers and all German teachers have, is another means of allowing teachers to teach the same students across courses to reduce the overall number of students they teach. In German secondary schools, including those that have been restructured into learning communities, teachers instruct 90 students each (Ratzki & Fisher, 1989/1990).

- **Dropout programs and tracked courses are adjusted to increase student choice and academic challenge across all programs and SLCs.**

Schools that implement SLCs simultaneously revamp dropout programs and academic tracks in order to make student choice and academic challenge actual, viable SLC educational strategies (Fine & Somerville, 1998, Oxley, 1994a, 1997b; and <http://www.sreb.org/programs/hstw/background/brochure.asp>). Not to adjust programs and tracks places the SLC in a precarious situation. To the extent that SLCs coexist with dropout and tracked programs, they become a *de facto* track.

Students, parents, and teachers look to higher academic track courses for academic challenge, to dropout programs for remediation and socialization, and to SLCs for something in between. In these circumstances, students' history of academic achievement drives program choice rather than substantive curricular interests. It is difficult for teachers and students alike to pursue high academic standards when programs imply judgments of students' abilities (Weinstein, 1998).

Research shows disproportionate numbers of White, middle-class students are associated with high academic tracks more often than are ethnic minority, lower class students (Oakes, 1985, 1995). SLCs that operate as *de facto* tracks replicate these social class disparities (Ready et al., 2000) as well as the inadequacies of remedial programs (Grannis, 1991; Wang & Wong, 1995). Consequently, dropout programs and tracked courses must also offer students choices and distinctive, substantive program offerings.

The necessity of school-level de-tracking does not rule out the practice of grouping students *within* SLCs on an *ad hoc* and fluid basis. Several SLC models create opportunities for remediation within the SLC's elective offerings (McPartland et al., 1998; Oxley, 1993).

- **School improvement goals are aligned with SLC goals and needs.**

A school's improvement process and goals must be consistent with its SLCs' practices and needs for improvement. Numerous, unrelated school goals and reforms detract from full and faithful implementation of any one promising reform (Cohen, 1995). Very often, reforms, including SLCs, do not advance beyond an initial stage of implementation before a new reform initiative emerges and fragments existing reform efforts. School improvement efforts that encompass sustained, coherent strategies are more likely to promote successful student outcomes (Newmann et al., 2001a, 2001b).

- **Small learning communities are represented in school governance structures.**

A distinctive feature of successful SLCs is their fair representation on building-level decision-making bodies (Cook, 2000; Oxley, 2001; Ratzki & Fisher, 1989/1990). Governance councils in the schools in which these SLCs reside may contain representatives of additional groups, including special education

and academic disciplines, yet make SLC representatives a proportion of council membership that is commensurate with SLCs' status as the major unit of organization.

- **School and district provisions for staff planning and development accommodate SLC needs.**

School and district provisions for professional development should reflect a sustained commitment to building capacity and consensus among teachers, parents, and administrators for implementing the essential practices of SLCs (Christman & Macpherson, 1996; Wasley et al., 2000). Given that different school improvement initiatives tend to travel along different channels with weak links to teacher practice, professional development is needed as a tool to create a coherent framework for school reform activities (Cohen, 1995). Professional development should be designed to help teachers strengthen connections among their efforts to develop more engaging and authentic curricula, raise standards for student performance, and build community—in short, carry out a coherent vision of SLC practice (Christman & Macpherson, 1996).

Curriculum and Instruction

The following SLC curricular and instructional practices are associated with positive student outcomes:

- **The SLC offers an authentic course of study.**

A distinguishing attribute of successful SLCs is a curriculum that has relevance to the world outside school and personal meaning for students. At a minimum, courses include interdisciplinary content to give students opportunities to explore topics within authentic contexts that are not limited by the boundaries of academic disciplines. Curricular themes, career interests (Legters et al., 2002; McPartland et al., 1998), and interdisciplinary inquiry (Ancess, 1995; Meier, 1995) create meaningful connections among courses. Courses integrate college and career preparation (Little, 1996) and blend classical studies with multicultural content and students' own lives and interests (Darling-Hammond et al., 2002). Teachers work with community partners to design curricula grounded in real-world work (Ancess, 1995).

- **The SLC has a rigorous, standards-based curriculum.**

Holding all students to high standards to ensure educational equity and access to postsecondary education and jobs is a centerpiece of all current major school reform initiatives (Legters et al., 2002), including the small schools/SLC movement (Fine & Somerville, 1998). In practical terms, holding high standards for academic achievement means offering a core curriculum to all students (Sizer, 1992), eliminating academic tracks and courses that water down content (Southern Regional Education Board, 2003), and providing support sufficient to enable all students to access the core curriculum (Weinstein, 1998).

- **Teacher teams actively collaborate on curriculum and instruction and student progress.**

Small learning community teams that spend common preparation time actively discussing and planning curriculum and instruction improvements as well as troubleshooting student progress contribute to SLCs' effectiveness (Darling-Hammond et al., 2002; Oxley, 1997b; Wasley et al., 2000). Successful SLCs do not appear to depend on extraordinary individuals as much as on regular collaboration (Darling-Hammond et al., 2002; Wasley et al., 2000). Collegial exchange among team members serves to broaden input and deepen consideration of the educational problems they face. Anness' (1995) description of a problem-solving session held by staff of a successful SLC provides a compelling illustration of a school that learns (Senge, 2000). Sharing ideas and observing each other's work provides an effective form of professional development by expanding individual members' teaching repertoires and socializing new team members (Darling-Hammond et al., 2002).

Team members' collaboration also engenders a sense of shared responsibility for their students' success Teams able to unify their efforts across disciplines and grades felt more efficacious and committed to students' ongoing learning than did teachers working in traditional schools.

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- **Active, authentic (student-centered) work occurs (including collaboration with community partners).**

Students in successful SLCs actively explore topics, problems, and questions

and produce authentic demonstrations of their knowledge (Darling-Hammond et al., 2002; Meier, 1995; Oxley, 1997b). SLC students play an active role in designing and carrying out academic work. They help teachers identify problems to study, questions to research, books to read, and methods of demonstrating their knowledge and understanding (Anness, 1995; Meier, 1995). They work individually and collaboratively using class conversations to express and revise their thinking. They work inside classrooms and out in the community alongside individuals with authentic expertise in the problem area under study. SLC students frequently engage in project-based learning that requires them to collect and critically analyze

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information, defend their conclusions, and make in-depth oral and written presentations of their findings (Darling-Hammond et al., 2002; Meier, 1995; Wasley et al., 2000). Research finds that student work that involves this active mode of acquiring knowledge (i.e., authentic pedagogy) is linked to heightened student achievement (Newmann, Marks, & Gamoran, 1995a, 1995b).

- **Teams make innovative, flexible use of time and space to meet the needs of all students.**

Teachers respond flexibly to student learning needs partly by taking full advantage of blocked instructional time to organize instruction in accordance with student needs (Darling-Hammond et al., 2002; McPartland et al., 1998; Oxley, 1997b; Ratzki, 1989/1990).

Traditional schools typically require students who fail to master the curriculum in the allotted time to repeat classes or participate in separate remedial courses or programs. The SLC structure gives teachers flexibility to tailor instruction to their students' needs. Teams can adjust instructional time as needed, group students for specialized instruction within the team, and diversify learning activities to increase routes to mastery (Legters et al., 2002; McPartland et al., 1998; Oxley, 1997b). SLC teams design and provide the support needed. The teams take responsibility for meeting all their students' needs rather than referring students to teachers who lack a developed knowledge of the students and may lack the contextual background to provide coherence of instruction

(Wasley, et al., 2000).

- **Teachers advise and mentor students and collaborate with parents.**

In successful SLCs, each teacher advises and mentors a small group of students on a regular, ongoing basis to troubleshoot their academic progress and as a means of further personalizing teaching and learning (Ancess, 1995; Darling-Hammond et al., 2002; Legters et al., 2002; McPartland et al., 1998; Oxley, 1997b). Advisories with teacher–student ratios ranging from 1:25 to 1:10 meet once a day to once a week. Teachers discuss personal as well as academic issues of concern to students (e.g., rules, graduation requirements, difficulties students are having) and contact parents as needed.

- **Teams reflect on practice and engage in continuous improvement with stakeholders and other critical friends.**

Research indicates that SLCs will realize their promise only if teachers engage in a continuous and inclusive process of improvement (Christman & Macpherson, 1996; Oxley, 2001). Ongoing efforts to deepen practice require regular teacher reflection on practice, including analysis of student work and collection of stakeholders' input. Furthermore, teachers in SLCs who embody a spirit of inquiry and demonstrate an interest in learning help to establish a modus operandi for the entire community (Senge, 2000). Such teachers' consideration of ways to improve practice benefits from students' replicating that involvement in identifying problems, weaknesses, and possible solutions (Ancess, 1995). Improving practice also requires consideration of the perceptions of parents, administrators, other teachers, and university researchers whose outside perspectives can broaden those of SLC teachers (Oxley, 1997b). To involve stakeholders in a meaningful way, SLC teachers must supply stakeholders with adequate information, especially access to classrooms and student work. Stakeholders and university partners, in particular, can help develop student data with which to assess changes over time in an objective fashion (Christman & Macpherson, 1996).

- **Teams set and pursue professional development goals that accord with SLC improvement needs.**

Small learning community teams identify and develop professional development opportunities that help them pursue their mission and specific improvement goals (Christman & Macpherson, 1996; Darling-Hammond et al.,

2002; Wasley et al., 2000). The teams avail themselves of both external and internal professional development but, to a large extent, arrange for exchanges among colleagues to enhance professional skills (Darling-Hammond et al., 2002). What is distinctive in either case is SLC teachers' own identification of the particular kind of professional development they need. As a result, SLC teachers have a better grasp than do traditional teachers of how the professional development fits with their goals and plans and how they will put new knowledge and skills to use (Wasley et al., 2000).

Conclusion

To date, theory and research have illuminated what the defining characteristics of small learning communities are and whether small learning communities in fact improve student achievement as expected. Characteristics and effects, however, do not define what is essential about small learning communities in terms of on-the-ground practices instrumental to enhancing students' learning. What does it mean to imbue schools with SLC-defining qualities such as personalization, identity, autonomy, teacher support, accountability (Cotton, 2001)? This paper attempts to identify the particular practices implicated in small learning communities' positive effects on students. Further, its goal is to organize these research-based practices in a manner that reveals the interdependency among practices and the necessary isomorphism of SLC curriculum and instruction with SLC organization and school and district-level practice.

The results of these efforts to delineate research-based SLC practices are perhaps both to clarify and make more complex small learning community reforms. Adding precision to reforms may threaten practitioners' spirit of local innovation even as it provides more concrete guidance. But it is important to recognize that the research-based practices identified in this *Review of the Research* are abstractions of the specific varieties of practice actually in place in the schools studied. It is plausible that the particularities of local practice are part of what makes it successful, building as it may on the school's unique strengths, history, and character. Personalization and local identity of SLC reforms may play an important role in their implementation and effect just as personalized and identity-bestowing practices within SLCs contribute to students' success.

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