Project ASSIST:

A Comprehensive, Systemic Change Initiative for Middle Level Schools

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Project ASSIST: Background

Origins and Purpose

Originally designed in 1995-96 as a comprehensive, systemic school reform initiative of the Missouri Center for School Improvement (MCSI), Project Assist currently resides in the Middle Level Leadership Center (MLLC), a research and service center located in the Department of Educational Leadership and Policy Analysis, College of Education, University of Missouri-Columbia, USA and directed by Professor Jerry Valentine. MLLC maintains a mission of positively impacting the quality of school leadership and thus the quality of schooling for middle level students (see www.MLLC.org for a discussion of the mission, vision, goals and projects of Center.) Project ASSIST is the hub of the Center's school improvement service efforts.

ASSIST, an acronym for Achieving Success through School Improvement Site Teams, is grounded in the premise that professional development and support provided to a school leadership team comprised of a nucleus of teacher-leaders and the principal can translate into school-wide improvement (Jackson & Davis, 2000; Maeroff, 1993; Valentine, Clark, Hackmann, & Petzko, 2004). The conceptual design of ASSIST is based upon two "frameworks" for comprehensive, systemic school improvement. The first is a "student-centered, content" framework that includes the major components of school culture, school climate, pedagogy, leadership, and organizational structure. The second is a "vision-driven, change process" framework that includes defining faculty values/beliefs/commitments, designing a school vision with goals and strategies for accomplishing the vision, and utilizing data to inform the goals and progress toward the goals (Valentine, 2001).

From 1996 through 1998, the first two-year ASSIST cohort of eight elementary schools, eight middle schools, and nine high schools attended bi-monthly work sessions at the university. The sessions were designed to build the various teams' knowledge of best educational practice and processes for leading change when they returned to their respective schools. The second two-year cohort of schools began in the fall of 1998 and concluded in the summer of 2000. The second cohort included 12 middle schools from across the state of Missouri. The shift to middle schools only was congruent with the goals of the MLLC and its primary focus on middle level leadership. The findings and discussions presented in this paper are drawn from the 1996-1998 and 1998-2000 Project ASSSIT cohorts.

Schools from the two ASSIST cohorts represented a cross-section of schools from rural, small town, small city, suburban, and urban communities. The cohorts also included schools with diverse economic and ethnic demographics and varied levels of student achievement. That diversity provided valuable perspective for the cohorts as they worked together in their bi-monthly work sessions with the university-based ASSIST staff.

Project ASSIST: Review of Literature

A brief literature review of the theoretical underpinnings of Project ASSIST is included in this section. The reviews are (a) learning organizations, (b) school culture, (c) organizational change, and (c) school improvement.

Learning organizations

Learning organizations are organizations skilled at creating, acquiring, and transferring knowledge as well as modifying their behavior to reflect new knowledge and insights (Garvin, 1993). Morgan (1997) defines learning organizations as those that 1) scan and anticipate environmental change to discover important variations, 2) develop an ability to challenge the daily norms and assumptions, and 3) allow an appropriate strategy of plan for the organization to emerge. He also asserts that learning organizations should attempt to become skilled in double-loop learning – the ability to take a "double look" at a situation by questioning the relevance of operating norms (p.90). Leithwood and Aitken (1995) define a learning organization as one where people are pursuing common purposes while collectively committing to regularly analyzing the value of those

purposes. A continuous effort is also undertaken to develop more efficient and effective ways to accomplish those purposes.

With the increasing pressure from federal, state, and local directives, schools must critically examine how they function as educational institutions. Seashore-Louis and Kruse (1998) suggest learning organizations do not change because of directives but because of the ability of both the individuals and groups to analyze, acquire, understand and plan around information from the environment while maintaining continuous internal monitoring. The ability of individuals and groups to engage in this process in all likelihood must be fostered by school leaders. Leithwood, Jantzi, and Steinbach (1998) found school leadership practices to be among the strongest direct and indirect influences on organizational leadership in their study of a group of Canadian teachers and principals.

Project ASSIST attempts to foster organizational learning through bi-monthly work sessions with members of the designated leadership team. Several teachers and the principal from each school serve as a leadership team, charged with the responsibility to lead the whole faculty in continuous change. These "ASSIST" teams meet bi-monthly with the University-based support team to analyze data and design school-specific strategies to advance the school toward becoming a learning organization. This process is viewed in Project ASSIST as critical to formulating the organizational knowledge necessary for growth. During the sessions the ASSIST team studies processes for group leadership and change as well as how to define, collect, analyze, and apply data for change. They build a picture of the school's current status while facilitating a value-driven plan of action. A continuous effort such as this enhances the 'knowledge spiral' within an organization and reorients and promotes fundamental values through collective commitment (Nonaka & Takeuchi, 1995).

School Culture

School culture can be defined as learned assumptions shared by group members as they solve problems related to "external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1992, p.12). Others have defined a school culture as being a set of values, beliefs, feelings, and artifacts "that are created, inherited, shared, and transmitted within one group of people and that, in part, distinguish that group from others" (Cook & Yanow, 1996, p. 440).

Schein (1985) and Deal and Peterson (1990) suggest that school cultures are networks of traditions and rituals that have developed over time as teachers, administrators, students, and parents work together to solve problems and celebrate accomplishments. Deal and Peterson (1999) state that culture helps school leaders better understand their school's own unwritten rules, traditions, norms, and expectations. These authors further suggest that school culture permeates everything within a school: "the way people act, how they dress, what they talk about or avoid talking about, whether they seek out colleagues for help or don't, and how teachers feel about their work and their students" (pp. 2-3). Culture also determines particular educational emphases or goals that prevail within a school (Hallinger & Heck, 1999).

School culture has been found to have significant effects on the success of the organization. Barth (2002) states that a school's culture has significant influences on learning and life within the context of the school environment. Deal and Peterson (1999) state that school successes "flourished in cultures with a primary focus on student learning, a commitment to high expectations, social support for innovation, dialogue, and the search for new ideas" (pp. 6-7). Healthy school cultures can "lead to enhanced commitment and performance that are beyond expectations. As a result, the school is better able to achieve its goals" (Sergiovanni, 2006, p. 155).

School leaders have an effect on the cultures of the schools they lead (Lucas, 2001; Miles, 2002; Schooley, 2005; Valentine, 2001). Leithwood and Riehl (2003) state that school leaders can influence culture through "practices aimed at developing shared norms, values, beliefs, and attitudes among staff, and promoting mutual caring and trust among staff" (p. 20). Bates (1981) states that principals shape school culture through conflict and negotiation. Bates also suggests that principals influence important factors, such as language, metaphors, myths, and rituals that can determine the culture of a school. The leader of a school's culture should

be a transformational leader who creates a caring, collaborative environment that focuses on the success of each student (Valentine, 2001).

In conclusion, one should note that culture does not just happen, it is a "negotiated product of the shared sentiment of school participants" (Sergiovanni, 2006, p. 138). School culture is both a product and a process. As a product, school culture embodies the accumulated wisdom of previous members of the organization. As a process, it is continually renewed and recreated as new members are taught the old ways and eventually become teachers themselves (Bolman & Deal, 1991). School culture is important to the development of healthy schools that focus on the achievement of the students they serve. A student-centered, collaborative culture represents a set of values and norms necessary to achieve success for all students (Valentine, 2001).

Organizational Change

Cuban (1988) poses the question, "How can it be, then, that so much school reform has taken place over the last century yet schooling appears to be pretty much the same as it has always been?" Organizational change involves many levels. Cuban posits two levels of change, first and second order, within an organization. First-order change is described as change that improves the "efficiency and effectiveness of what is done" (Cuban, 1988, p. 342). Such change might include, but is not limited to, revising busing schedules, playground schedules, increasing teacher pay, revising curriculum, etc. Second-order change encompasses changes that "seek to alter the fundamental ways in which organizations are put together" (Cuban, 1988, p. 342), and might include, but not be limited to, the hierarchy of leadership within a school, the control of the school, the culture of the school, etc. These two levels of change are concepts constantly stressed with the ASSIST teams.

Accomplishing comprehensive, systemic school change that improves student learning and fosters professional community requires staff members to aspire to a form of change that transcends simply improving efficiency and effectiveness of existing practices. These educators must value and act to alter the fundamental ways in which the school is organized; such alterations might include adopting new visions, appropriately evolving goals and changes in structure to meet the new visions. Staff must understand the existing school culture and partner with the administration to establish a culture that values continuous learning and change as a way of life in the school. In essence, the development of a culture for second-order change that fosters the capacity for teachers, principals, and communities to make a difference requires management of the change efforts at the local school level (Fullan and Miles, 1992).

School Improvement

School improvement often becomes a major focus for schools and districts that have repeatedly failed to meet the minimum requirement of state assessments. At this point district leaders typically attempt to implement a process to change the direction of their failing schools. As suggested by Fullan (1993), rather than change the educational system such attempts are more likely to result in retention of the status quo. By the accountability standards of the 21st century retaining the status quo will not suffice.

In a comprehensive study of school improvement, Newman and Wehlage (1995) found that school improvement efforts are helpful only to the extent that they focus on two critical components: "advancing the intellectual quality of student learning and the nurturing of professional community" (p. 14). Mai (2004) argues that if school improvement and reform are to be successful, leaders must play the role of critic/provocateur and learning advocate/innovation coach. In the critic/provocateur leadership role the leader must be willing to raise critical questions even when others prefer not to do so. In the role of advocate/innovation coach the leader must support a number of learning activities, especially problem solving as a team, knowledge sharing, and using data to guide innovation.

Project ASSIST teams focus on engaging the school faculty in the critical questions about their efforts. This process often challenges these schools to avoid retaining the status quo and seek ways to actively engage in a school improvement process that will ultimately improve student achievement.

Project ASSIST: Frameworks

The overall design of Project ASSIST is based upon two unique but interrelated "frameworks" for improvement. The frameworks are somewhat complex and require time to understand and establish. Once established, they are fragile and difficult to maintain. The following discussions briefly explain each framework and the significance of the concepts "comprehensive" and "systemic." (See Valentine, 2001 for a more detailed discussion of the ASSIST Frameworks.)

The Student-Centered Content Framework

The Student-Centered Content Framework (Appendix A) identifies selected "best educational practices" deemed important for comprehensive change. This "content" framework personalizes the knowledge of effective schooling, drawing upon a contemporary understanding of best pedagogical practice, the most effective leadership competencies, and the organizational structures that support pedagogy and effective leadership.

To positively impact success for each student, the student-centered framework has three primary components that must be implemented within a caring, collaborative school culture and a climate or environment of trust and respect. The components are Organizational Leadership, Organizational Pedagogy, and Organizational Structures. The culture is Caring and Collaborative, and the environment is Trusting and Respectful (Valentine, 2001). The following sections describe these basic components as they are implemented in Project ASSIST.

Organizational leadership. Leadership within an effective school begins with a highly competent principal who exhibits effective transformational, instructional, and managerial leadership skills (Andrews & Soder, 1987; Brewer, 1993; Duke & Leithwood, 1994; Jantzi & Leithwood, 1996). The principal must possess a servant mentality to build the trust and respect of teachers, students, and the school community (Patterson, 2003).

The successful transformational leader values the skills associated with "transformational" leadership. The principal exhibits competence identifying and articulating a vision, being a role model for the staff, marshalling staff support of school goals, supporting teachers, and stimulating their thinking while maintaining high expectations for success (Jantzi & Leithwood, 1996). The principal supports a process that disperses leadership and ownership for success across a wide segment of the school faculty (Valentine, et al., 2004).

Instructional leadership that makes a statement about the importance of quality educational practice is also essential. In recent decades educators have recognized the significance of instructional leadership, and few have expressed that significance more eloquently than the late Ron Edmonds. From the work of the early "school effects" researchers to the contemporary writings of today, authors have recognized the significance of principal leadership that understands, supports, and even champions the curricular, instructional, and assessment components of a school's programs (Purkey & Smith, 1983).

The effective principal, especially the effective principal in schools of poverty, possesses high levels of competence in managerial leadership (Muijs, Harris, Chapman, Stoll & Ross, 2004). The principal establishes effective and efficient policies and routines for smooth day-by-day school operations. He/she creates structures within the school to engage key school leaders in the leadership process. The principal fosters the creation of a culture that transforms how individuals view leadership, moving the mental image of leadership from one of power vested in a select individual or group to one of empowerment of all who would accept the challenge of ownership for student success. Transformational leadership generates the energy for ownership for student success. The capacity to lead change transforms staff members; they feel empowered to make a difference. Time invested outside the classroom takes on new meaning as staff members collaboratively work to support school-wide improvement. What teachers do within their classrooms also takes on new meaning as teachers attempt to match personal work with espoused statements of school-wide quality. Ownership for quality evolves because the principal creates the conditions that empower staff to redefine individual mission and vision into a collective commitment to the school's mission and vision. Empowering teachers is associated with teacher expertise and improved student performance (Sweetland & Hoy, 2000).

Organizational pedagogy. The responsibility to create learning and the related responsibilities for emotional, social, and physical development make the business of education unique. Any comprehensive approach to school improvement must address the core knowledge of schooling from the process of learning to the role of formative and summative assessment (Keefe & Howard, 1997). Integrated curriculum and authentic, constructivist teaching approaches are recognized as significant practices for student understanding of content, higher-order thinking, and problem-solving skills while more traditional practices are touted as appropriate for some students and some outcome goals such as measurements of factual recall. Exclusive use of one or two practices may not meet the needs of all students and may, based upon existing knowledge about how students learn, deny to many the opportunity to succeed. Differentiated approaches to instruction and varied formative and summative forms of assessment fit contemporary understandings of how students learn. Learning theories abound and educators must know those varied theories, understand their value in selected situations, and apply them effectively so each young adolescent is given the best opportunity to succeed. Meaningful efforts to improve the schooling process must include the study of such questions as: What is known about how young adolescents learn? In what ways are students different at the various developmental stages during the schooling experience? What curriculum, instruction, and assessment practices best fit these developmental progressions? And, such efforts must include the pedagogical components of understanding how young adolescents learn and the forms of curriculum, instruction, and assessment that match with learning for young adolescents. These components are the business of schooling (Jackson & Davis, 2000; Valentine, et al., 2004).

Organizational structures. The organizational structures of the school must fit the desired leadership and pedagogical practices established by the values and beliefs, the mission and vision, and the implementation strategies to accomplish the vision. Form should follow function and in the case of school improvement, the organizational structures must evolve from the leadership and pedagogical components of the framework. Staff members must collaboratively identify the best models for organizing time, scheduling curriculum, and defining the learning environment. Organizational structures in highly successful schools are purposefully designed to support the development of relationships (Valentine, et al., 2004). Structures should foster interaction and interpersonal relationship-building, both among and between students, teachers, administrators, parents, community, and others with vested interests in students' successes (Valentine, 2001; Painter & Valentine, 1999). Structures should also be established that collect and utilize data to assess and inform school improvement, school success, and individual student success (Quinn, Gruenert, & Valentine, 1999; Gruenert, Painter, Quinn, & Valentine, 1999). Staff members must be hired because they embody the competencies needed to educate young adolescents. Professional development must be designed and implemented to address the needs of those who teach young adolescents. Woven throughout the fabric of the structures used in the school are the essential elements of collaboration, relationship development, and progress toward the accomplishment of the school vision. The "vision-driven" process for change and improvement detailed later in this paper as the second framework is a prime example of how purposeful structure shapes the direction and vision of the school and, most importantly, the commitment of a faculty to that vision (Valentine, 2001).

Trusting, respectful climate. The climate of an organization is determined primarily by the relationships among the teachers and administrators of the school (Keefe & Howard, 1997). Those relationships drive the climate as well as the relationship the school's adults have with their clients, the students, parents, and school community. A school's climate is a function of the collective perceptions of the working relationships and conditions within which the educators function. Trust and respect are necessary if staff members, school administrators, parents, and others with vested interests in a quality school are to work together effectively (Hoy & Sabo, 1998). Discussions during the development of the values' and beliefs' statements build a foundation for trust and respect. Discussions that lead to collaborative development of the mission, vision, goals, and implementation strategies define those relationships. The manner with which a principal implements instructional and managerial roles further establishes images of trust and respect in the minds of the staff. And

finally, the principal's competence as a managerial, instructional and transformational leader directly correlates to the school's climate (Lucas, 2001; Painter, 1998; Prater, 2004; Quinn, 1999). The ability to empower and establish ownership among the faculty is associated with the skills of the principal and the climate the principal establishes. Without a climate of trust and respect, even the best pedagogy and structure will have marginal effect upon the success of each student because the support system to do the very hard work of education and maintain that work will be absent (Valentine, 2001; Tarter, Hoy, and Bliss, 1989).

Caring, collaborative culture. The culture of the school is a collection of the shared assumptions of the members of the school that either inhibit or facilitate student growth. Culture is often defined as the "way we do things around here" (Cunningham & Gresso, 1993). It represents the values, the beliefs, the assumptions, and the traditions of the organization (Schein, 1985, 1992). A caring, collaborative culture is slow to evolve and difficult to maintain (Valentine, 2001).

A school's culture should represent caring about the success of others, particularly students and the development of collaborative relationships that place the success of each student at the fore. The value system of the school should expect that each student will be given the support necessary to be a successful member of the school community. Effective cultures are led by transformational leaders who value and foster collaboration, empowerment, and ownership. Principals have the capacity to shape the culture positively or negatively by the manner with which they address these assumptions. Collaboration is likely to work only when the principal and a significant number of teachers at a school become convinced that it will actually lead to improved teaching and learning (Fullan & Hargreaves, 1996).

Once established, the truly caring, collaborative culture is the cocoon in which candid, difficult, challenging discussions and disagreements can occur that continuously progress the school toward those changes requisite to providing students with the best learning opportunities. A collaborative culture is the foundation upon which a professional learning community rests. Such a culture is an essential ingredient for long-term, continuous school improvement (Deal & Peterson, 1999). As a part of continuous school improvement, the culture must embrace on-going professional development, self-reflection, progressive thinking, and risk-taking, all in the interest of success for each student. Staff members place student success ahead of personal convenience. They are committed to a quality school for each student. (Valentine, 2001).

The Vision-Driven Change Process Framework

At the heart of continuous improvement in the ASSIST initiative is a vision for change, depicted in Appendix B. This "vision-driven process" framework defines the strategies used in Project ASSIST to initiate organizational change. These processes are discussed and implemented initially in a step-by-step, "learning-to-walk" structure. Eventually, the school leaders and faculty are expected to "internalize" these processes and will thus function in a more comprehensive manner (Appendix C). This conception represents a more fluid, macro image of continuous change. Both the initial and the internalized conceptions are grounded in the development, accomplishment, and maintenance of a "vision" (direction) for school improvement. The concept is, in most schools, slow to evolve and often takes two or three years of "step-by-step walking" before the processes become internalized as an artifact of the school's culture. With the pressure today to be "data-driven," many school leaders and teachers, bombarded with the detailed data associated with high-stakes testing, find difficulty in understanding the bigger picture of vision-driven change and instead cling to data-driven aspects of change (Gruenert, et al., 1999; Quinn, et al., 1999). The following section clarifies how Project ASSIST defines the differences between vision-driven and data-driven school improvement.

Vision-driven. At the core of the vision-driven framework reside the school's collaboratively-developed vision and the goals necessary to accomplish that vision. The vision is a conception, developed deliberately by the faculty and grounded in the knowledge of best practice, of what the school should become over the next three to five years. Collaboratively developed faculty values, beliefs, commitments, and mission directly inform this vision. Accomplishment of the vision is based on the accomplishment of goals derived from the vision.

Objectives, strategies and tasks form the basis for a school-wide action plan to accomplish the goals, and thus the vision. School component focus teams are empowered to develop the action plans. Each team is asked to view each goal through the lens of one of several major components necessary to school effectiveness, such as curriculum, instruction, leadership, resources, professional development, research, climate, and culture. Through this empowering process, all faculty members are engaged in the design of all sections of the action plan, contrasted to separate "committees" or "task forces" assigned to develop one aspect of the plan. As the action plans are implemented, progress is assessed and the formative data provide an understanding of successful accomplishment of each goal. The data simultaneously inform the refinement of the vision (Valentine, 2001).

The first time a school progresses through the steps of the vision-driven change process, each step is taken in a deliberate and unique fashion. Once the school has progressed through the linear steps two or three times, the understanding of the complexity of the process evolves and progression toward internalizing the process as part of the school's culture becomes evident. Once internalized, the process becomes a fluid sequence of "big picture" images, still centered on the vision, but implemented through a continuous process of building knowledge of best practice, refining the vision per best practice, assessing existing practice, establishing goals and plans for change, and implementing those plans. While values and beliefs are typically slow to change, the school's vision should be revisited annually, and development of professional knowledge should be a continuous process (Painter & Valentine, 1999).

Data collected during Project ASSIST about existing practices within the school setting are used to inform the organizational goals, not shape the vision. If the vision is solely data-driven, then the process becomes one of continually responding to specific deficiencies within the school setting, for example, low math achievement data, rather than addressing change via the knowledge of best practices. Deliberate change grounded in best practice is slow but has the potential to last. The "quick fix" strategies and repetitive leap-frog from one program or strategy to another often retards change. Change driven by deficiencies is short-lived and infrequently effective in making a meaningful difference in achievement. Such changes are often mandated by state or district policy and frequently are defined by specific student achievement scores. Improving test scores and any other form of student success is a complex challenge and requires a complex, not a simplistic approach. Only through comprehensive, systemic processes grounded in the content knowledge of best practice can meaningful change take place. Thus, the emphasis on the concept of "vision-driven change" rather than the more popular notion of "data-driven change" (Gruenert, et al.,1999; Quinn, et al.,1999; Valentine, 2001)

Comprehensive and Systemic

Both frameworks for school improvement are comprehensive and systemic. The following sub-sections provide an explanation of these important concepts as used throughout Project ASSIST.

Comprehensive. The frameworks are comprehensive because the components within the frameworks are broad in scope and reflect the best knowledge about multiple critical aspects of educational practices and organizational change. In the "content" framework, for example, changing organizational structures from a departmentalized to an interdisciplinary approach does not improve student academic achievement. To impact achievement, curriculum must be refined to fit with the organizational structure and instructional practices must be adapted to fit both the revised curriculum and the new structure (Valentine, 2001). Another example, within the "process" framework, would be the adoption of a set of goals designed specifically to improve classroom instruction. While such focus has the potential to impact student achievement, such a narrow focus on student achievement misses the mark needed to promote the continuous development of the social and emotional maturational skills essential to young adolescents' development. A focus on improving instruction might exist, but without a focus on building genuine relationships or establishing student self-discipline, efforts at instructional change fall short of making real differences in learning (Keefe & Howard, 1997; Valentine, 2001).

Systemic. The frameworks are systemic because the components are interdependent across the varied systems within the school setting. In the "content" framework, for example, having a skilled, likable manager with minimal expectations for student success is little better than having a tyrant with the same low expectations. Improving school leadership will not make a difference if leadership does not aggressively support the best practices of educational pedagogy (Valentine, 2001). The strategies throughout the "process" framework are systemic, and each is interdependent on the other. For example, to build a vision not grounded in the values and beliefs of the faculty or in best practice is a waste of time and energy. To engage but a portion of the faculty in the development of each of the components described in the process is just as futile. Each segment of the school community, and especially all staff responsible for achieving the vision, must be engaged in all processes for improvement. While time and energy are limited, the engagement of all in the discussions and decision-making associated with these essential components is necessary if continuous change is to be initiated and maintained (Keefe & Howard, 1997; Valentine, 2001).

Project ASSIST: Research Design

Research Questions

Throughout each of the ASSIST cohorts, quantitative and qualitative data have been collected for the major components of the ASSIST frameworks. Findings for the following research questions will be reported in this paper.

1.   Did school culture positively change as a result of the ASSIST comprehensive, systemic school improvement initiative?
2.   Did climate positively change as a result of the ASSIST comprehensive, systemic school improvement initiative?
3.   Did leadership ability of the principal positively change as a result of the ASSIST comprehensive, systemic school improvement initiative?
4.   Did instructional practices positively change as a result of the ASSIST comprehensive, systemic school improvement initiative?

Data Collection and Analysis

The research questions for this paper were answered primarily from quantitative data. The analyses were from Project ASSIST cohorts one (1996-1998) and two (1998-2002). In this study, the school was the unit of analysis. Quantitative data were collected prior to the beginning of ASSIST interventions and at the end of the second year of the Project. Qualitative data, in the form of transcripts of ASSIST work sessions, interviews, observations, field notes, and self-reporting narratives were collected throughout the Project and were used in this study to expand only to provide understanding for the interpretation of the quantitative findings.

When reporting the detailed findings in the paper, the quantitative data for each research question are presented in the form of tables showing the tests of differences between the pre and post data for each question. The following describes the quantitative variables and the types of qualitative data available to assess each research question.

Question 1. School culture quantitative data were collected using the School Culture Survey (SCS) (Gruenert & Valentine, 1998). The SCS is a 35-item, Likert-type teacher survey. The five factors of the School Culture Survey used for this research question and their reliability coefficients are: (1) teacher collaboration, .83; (2) unity of purpose, .82; (3) professional development, .87; (4) collegial support, .80; and (5) learning partnership, .66. The School Participant Empowerment Scale (SPES) (Short & Rinehart, 1992) was also used to collect data about school culture. The SPES is a 38-item, Likert-type teacher survey. The six factors of the SPES used for this question and their reliability coefficients are: (1) decision-making, .89; (2) professional growth, .83; (3) status, .86; (4) self-efficacy, .84; (5) autonomy, .81; and (6) impact, .82 (Short & Rinehart,

1992). The school culture qualitative data were also collected by the ASSIST staff through observations, interviews and school ASSIST team self-assessment protocols.

Question 2.   Quantitative climate data were collected using the Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) (Hoy & Tarter, 1997) and the Organizational Health Inventory-Middle. (OHI-M) (Hoy and Tarter, 1997). The OCDQ-RM is a 50-item, Likert-type teacher survey. The six scales of the OCDQ-RM and their reliability coefficients are: (1) supportive principal behavior .93; (2) directive principal behavior, .85; (3) restrictive principal behavior, .81; (4) collegial teacher behavior, .92; (5) committed teacher behavior, .60; and (6) disengaged teacher behavior, .46. The OHI-M is a 45-item, Likert-type teacher survey that measure six scales of organizational health. The six scales are: (1) institutional integrity, .88; (2) collegial leadership, .92; (3) principal influence, .82; (4) resource support, .90; (5) teacher affiliation, .90; and (6) academic emphasis, 92. The Staff Assessment Staff Assessment Questionnaire (SAQ) (Andrews & Soder, 1987) was also used to collect climate data. The factors of the SAQ used for this question and their reliability coefficients used to measure climate are: (1) positive learning climate, .83; (2) high expectations, .65; and (3) dedicated staff, .74. Qualitative data were collected through observations, interviews, and self-assessments.

Questions 3. Principal leadership was measured using the Principal Leadership Questionnaire (PLQ) (Jantzi & Leithwood, 1996). The six factors of the PLQ and the reliability coefficients are: (1) identifying and articulating a vision, .88; (2) providing an appropriate model, .86; (3) fostering acceptance of group goals, .80; (4) providing individualized support, .82; (5) providing intellectual stimulation, .77; and, (6) holding high performance expectation, .73. Principal instructional leadership was measured by the SAQ factor of strong instructional leadership. Strong instructional leadership is composed of 18 items with a reliability of .73 (Andrews & Soder, 1987). Principal leadership was also measured by the factor of collaborative leadership from the SCS. Collaborative leadership has a reliability coefficient of .91 (Gruenert & Valentine, 1998). Qualitative data were collected through observations, interviews, and self-assessments of the principals and the ASSIST teams.

Question 4. Instructional practices, more specifically student engagement in instructional practices, were measured through the classroom observation tool and protocols of the Instructional Practices Inventory (IPI) (Painter & Valentine, 1996). The six categories of the IPI are: (1) complete disengagement, (2) student work with teacher disengaged, (3) student work with teacher engaged, (4) teacher-led instruction, (5) student learning conversations, and (6) student active engaged learning. Categories five and six are coded only if the students are engaged in higher-order learning. The process for collecting IPI data includes a systematic progression by the observer from classroom to classroom throughout the school day, documenting the type of student learning taking place in the classroom at that time. The observer should make at least 100 observations per day and usually collects data for 120-150 observations per school per day. The observers for Project ASSIST were University personnel who selected multiple random days for observation throughout the Project. Observers were required to have an observation-coder reliability of .90 or higher to collect IPI research data. Instructional practices were also measured by three SAQ factors. Those factors and their reliability coefficients are: (1) curriculum continuity, .88; (2) early identification of student learning problems, .70; and (3) frequent monitoring of student progress, .91 (Andrews & Soder, 1987). Qualitative data from interviews and self-reporting protocols were used to expand the interpretation of the instructional practices quantitative data.

Findings

Data from the initial cohort of elementary, middle, and high schools documented significant positive changes in school climate, school culture, teacher empowerment, principal leadership, and classroom instructional practices. Data from the second cohort of only middle schools provided similar findings, with significant changes in school climate, culture, leadership, and instruction. In addition, changes in specific middle school programs and practices for young adolescents were noted. The findings reported in this paper will be for middle level schools only.

The number of schools served by Project ASSIST is relatively small compared to many reform models of the past decade and the primary work with middle level schools narrows the scope of the Project. Findings from the quantitative data presented in this section are organized by school culture, school climate, school leadership, and pedagogical focus. A brief discussion accompanies each section.

School Culture

Without question, a collaborative school culture is a critical component for any successful change (Cunningham & Gresso, Deal & Peterson, 1999; 1993; Valentine, 2001, Valentine, et al., 2004). As efforts of comprehensive systemic change are implemented, the school's culture should evolve into one of collaboration necessary for the development and maintenance of a professional learning community or learning organization.

The School Culture Survey (SCS) was used to collect data about the perceived artifacts associated with an effective school culture (Gruenert, 1998; Gruenert & Valentine, 1998). The School Organizational Climate Description Questionnaire-Revised Middle (Hoy & Sabo, 1998) and the Organizational Health Inventory-Middle (Hoy & Sabo, 1998) were the primary school climate instruments. The Staff Assessment Questionnaire (Andrews & Soder, 1987) and the School Participant Empowerment Scale (Short & Rinehart, 1992) were also used to collect teacher's perceptions about factors that provide understanding about school culture and climate. Data were collected prior to the start of the Project ASSIST initiative and collected again two years later at the conclusion of the project. The culture and climate data for the two ASSIST cohorts analyzed for this paper are presented in Table 1. More detailed data charts showing the group means, average change over the two years, t-test values, and degrees of freedom for each variable are provided in Appendix D.

Based on analysis of the data collected using the School Culture Survey (SCS), differences in the pre and post mean scores for the five SCS culture variables, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership, were significant. Teacher Collaboration measures the degree to which "teachers engage in constructive dialogue that furthers the educational vision of the school" (Gruenert & Valentine, 1998) and reflects changes in the way teachers across the school work and plan together and analyze and build an awareness of the practices and programs used by others throughout the school. Understanding the school's common mission and working toward accomplishment of that mission was analyzed by the variable Unity of Purpose. Unity of Purpose increased for both cohorts and was significant for the second cohort and the combination of the two cohorts. The Professional Development variable describes the degree to which teachers "value continuous personal development and school-wide improvement" Gruenert & Valentine, 1998). The degree to which teachers work together effectively, trust each other, value each other's ideas, and assist each other in work toward the tasks of the school organization was measured by the Collegial Support variable. The Learning Partnership variable of the SCS, which describes how well teachers, parents, and students share and communicate a common expectations for student success was also significant for the second cohort and the combined data from both cohorts. These findings affirmed a change in the project schools toward a more focused mission and a more collaborative and collegial effort to accomplish that mission.

Table 1
Pre-Post Test of Differences for Project ASSIST Culture/Climate Variables

Culture/Climate Variables	1996-1998 ML Schools (N=8)	1998-2000 ML Schools (N=12)	1996-1998 1998-2000 ML Schools (N=20)
Teacher Collaboration	0.015*	0.014*	0.000**
Learning Partnership	0.131	0.001**	0.000**
Unity of Purpose	0.180	0.000**	0.000**
Professional Development	0.018*	0.046*	0.002**
Teacher Collegial Support	0.226	0.001**	0.001**
Teacher Collegial Behavior	X	0.100	X
Teacher Committed Behavior	X	0.007**	X
Teacher Disengaged Behavior	X	0.001**	X
Teacher Affiliation	X	0.001**	X
Positive Learning Climate	0.021*	0.266	0.351
High Expectations	0.042*	0.301	0.352
Dedicated Staff	0.007**	X	X
Teacher Decision Making	0.061	0.004**	0.001**
Teacher Professional Growth Opportunities	0.217	0.034*	0.026*
Teacher Peer Status and Respect	0.350	0.838	0.396
Teacher Work Autonomy	0.546	0.408	0.852
Teacher Impact on School Life	0.408	0.817	0.456

X: Data not collected for that cohort
*Significant at .05 level
**Significant at .01 level

The perceptions of teachers that they are "empowered" supports the development of a collaborative school culture. The School Participant Empowerment Scale (Short & Rinehart, 1992) was used to measure factors of empowerment for both cohorts. The variables of Decision Making and Professional Growth Opportunities were significant for the second cohort and the combined cohorts. The Decision Making variable assessed the degree to which teachers "perceive they are involved in the decision making about issues of critical concern to them and their work, coupled with the belief that their involvement is genuine and their opinions are critical to the outcome of the decisions" (Short & Rinehart, 1992). The Professional Growth variable assesses the degree to which teachers "perceive the school provides them with opportunities to grow and develop professionally, to learn continuously, and to expand their own skills through the work life of the school" (Short & Rinehart, 1992). These measures supported changes in the schools toward a more participative, empowering, collaborative culture focused on individual and school-wide development.

School Climate
For the second cohort, the Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) and the Organizational Health Inventory-Middle (OHI-M) (Hoy & Tarter, 1997), developed specifically for middle level schools in the late nineties, were used to collect data regarding school climate. The OCDQ-RM measured Teacher Collegial Behavior, Teacher Committed Behavior, and Teacher Disengaged Behavior, and the OHI-M measured Teacher Affiliation. The findings from Teacher Committed Behavior affirmed that the teachers perceived increased effort to help students develop both socially and emotionally and invested extra hard work to ensure student success in school. Findings for the Disengaged Behavior factor identified increases in positive attitudes about the meaning and focus on professional activities and acceptance of colleagues. This

increase in positive attitudes was further supported by the findings for the Teacher Affiliation factor, which measured the "sense of friendliness and strong association with the school" and the degree to which teachers "feel good about each other, their job, and their students" (Hoy & Tarter, 1997).

Additional climate factors measured by the Staff Assessment Questionnaire (SAQ) (Andrews & Soder, 1987) supported changes in school climate in the ASSIST schools. The variable Dedicated Staff supported the "commitment to exercising a professional role with the school" (Andrews & Soder, 1987). Not all data from the SAQ, however, provided a clear picture of positive change. The SAQ factors of Positive Learning Climate and High Expectations were both significantly lower in the pre/post data collection for the 1996-1998 cohort. This finding implied that cohort members did not perceive the "degree to which staff provide student with structured, purposeful, and productive environments" (Andrews & Soder, 1987) and the "degree to which there exists within the school a climate of high expectations, characterized by a tone of respect for teachers, students, parents, and community" (Andrews & Soder, 1987) as positively at the conclusion of the project. Findings from the interviews and discussions with members of the ASSIST teams from those cohort schools revealed a perception that the faculties were relatively naïve about the components of effective schooling at the beginning of the project. As their knowledge grew as a result of the Project, they realized they were lacking in many areas that they previously thought were adequate. Therefore, when they completed the post-assessment their responses reflected a more critical analysis of their status than was the case when they completed the pre-assessments. While this is a plausible interpretation, one must wonder why the analyses of other variables from the first cohort were not consistently negative. Might they have had a better "starting" knowledge of some issues than others?

School Leadership

The teacher perception data about school leadership in the Project ASSIST schools were collected using the SCS, OCDQ-RM, OHI-M, and the SAQ instruments. The Collaborative Leadership Factor of the SCS (Gruenert & Valentine, 1998), the Strong Principal Leadership factor of the SAQ (Andrews & Soder, 1987), and the Collegial Leadership factor of the OHI-M (Hoy & Sabo, 1998) were the only variables with statistically significant differences in the pre-post measures. Collaborative Leadership measures the degree to which "school leaders establish and maintain collaborative relationships with school staff" (Gruenert & Valentine, 1998). The collaborative leadership factor describes leadership that values teachers' ideas, seeks input, engages staff in decision-making, trusts the professional judgments of teachers, supports and rewards risk-taking and innovation, and reinforces effective practices by staff. This factor from the SCS is used to define both effective leadership and a form of cultural leadership that provides a foundation for a collaborative school culture. Though positive increases were noted in the data for both cohorts and the combined cohorts, significant differences were found only for the second cohort and the combined data.

In contrast to the findings for the Collaborative Leadership Factor, the Strong Principal Leadership factor from the Staff Assessment Questionnaire (Andrews & Soder, 1987) provided teacher-perceived leadership data that declined significantly from the pre to post assessments for the first cohort and increased significantly for the second cohort, neutralizing any chance of a combined significance. The Strong Principal Leadership factor describes the "level of strategic interaction between the principal and teachers in areas of mobilizing resources, communicating, servings as an instructional resource, and being a visible presence" (Andrews & Soder, 1987). As noted previously for the SAQ factors of Positive Learning Climate and High Expectations, the significant decline in perceived leadership for the first cohort again raises the possibility of more informed, higher expectations by the time the post assessment was administered at the end of the second year of the Project.

Table 2
Pre-Post Test of Differences for Project ASSIST Leadership Variables

Leadership Variables	1996-1998 ML Schools (N=8)	1998-2000 ML Schools (N=12)	1996-1998 1998-2000 ML Schools (N=20)
Collaborative Leadership	0.127	0.008**	0.002**
Supportive Principal	X	0.106	X
Directive Principal	X	0.413	X
Restrictive Principal	X	0.483	X
Strong Principal Leadership	0.007**	0.034*	0.928
Collegial Leadership	X	0.020*	X
Principal Influence	X	0.071	X

X: Data not collected for that cohort
*Significant at .05 level
**Significant at .01 level

The factor of Collegial Leadership from the OHI-M was not available for the first cohort but was significantly positive in the post-assessment of the second cohort. The factor measures "principal behavior that is friendly, supportive, open, and guided by norms of equality" (Hoy & Sabo, 1998). The four other variables used to measure principal leadership (Supportive Principal, Directive Principal, Restrictive Principal, and Principal Influence) in the second cohort were not significantly different.

From an overall perspective teachers from the second cohort of ASSIST schools evidently perceived greater growth by their principals than was the case for the first cohort. Although that growth was not consistent across all variables, it does provide evidence that the principals who worked as integral members of their ASSIST teams did increase in their ability to function as more collaborative leaders and establish a more collaborative culture across their schools.

Pedagogical Focus

The final group of variables reported in this paper were from the "pedagogical" component of the Project ASSIST design. The pedagogical organization component focuses specifically on improving the curricular, instructional, and assessment aspects of schooling as well as the study of best practices for young adolescents as those practices relate to how students learn. Two forms of data are reported in Table 3. The first represents teacher perceptions for pedagogical variables from the OHI-M, SAQ, and SPES surveys. The second set of variables are from the Instructional Practices Inventory (IPI) observation data profiles collected periodically in each of the ASSIST schools.

Academic Emphasis measures the "extent to which the school is driven by academic excellence, with high but achievable goals established for students" (Hoy & Sabo, 1998). The data, available only for the second cohort, were highly significant. The factor of Resource Support of classroom materials and supplies, a second variable from the OHI-M associated with pedagogy, was also highly significant.

Three factors from the SAQ were used to assess the pedagogical component of Project ASSIST for both cohorts. The factor of Curriculum Continuity, which measures vertical and horizontal curriculum articulation, was not different in the first cohort but was so significantly different for the second cohort that it created significance for the combined cohort analysis. The factor of Early Identification measures "the degree to which school staff purposefully identify, in a timely manner, students with special needs" (Andrews & Soder, 1987). For the first cohort, the post-assessment data were noticeably lower, and for the second cohort the data were significantly higher. Analysis of the data for the SAQ factor of Frequent Monitoring of student progress and

instruction produced almost identical results, with the first cohort data being significantly lower and the second cohort data being significantly higher. The remaining SAQ factor did not produce significant results.

The pattern of teacher perceptions for the component of pedagogy follows the patterns noted for the components of climate/culture and leadership. The pre-post data for the first cohort are sometimes negative while the pre-post data for the second cohort are generally more positive.

Table 3
Pre-Post Test of Differences for Project ASSIST Pedagogical Variables

Pedagogical Variables	1996-1998 ML Schools (N=8)	1998-2000 ML Schools (N=12)	1996-1998 1998-2000 ML Schools (N=20)
Academic Emphasis	X	0.000**	X
Curriculum Continuity	0.985	0.015*	0.046*
Early Identification of Student Special Needs	0.053	0.005**	0.681
Frequent Monitoring Student Progress/Instru.	0.003**	0.004**	0.454
Resource Support Class Materials/Supplies	X	0.002**	X
Teacher Self-Efficacy for Student Learning	0.363	0.604	0.534
Student Engaged Higher-Order Learning	0.014*	0.002**	0.000**
Student High-Order Learning Conversations	0.219	0.176	0.058
Teacher-Led Instruction	0.837	0.003**	0.039*
Student Seatwork with Teacher Engaged	0.177	0.047*	0.024*
Student Seatwork with Teacher not Engaged	0.203	0.001**	0.001**
Student Disengagement	0.181	0.808	0.536
Student Higher-Order Learning	0.031*	0.016*	0.001**
Stu Higher-Order Learning/Tchr.-Led Instru.	0.036*	0.000**	0.000**
Tchr. Led Instru/Stu Seatwork Tchr Engaged	0.139	0.001**	0.299
Student Seatwork	0.055	0.000**	0.000**
Student Seatwork/Student Disengagement	0.030*	0.000**	0.000**
Stu Seatwork w/o Tchr./Stu. Disengagement	0.110	0.000**	0.000**

X: Data not collected for that cohort
*Significant at .05 level
**Significant at .01 level

The Instructional Practices Inventory (IPI) is a complex classroom observation process designed by Painter and Valentine (1996) for the ASSIST project to assess levels of meaningful student engagement in learning and the degree to which students are engaged in higher-order thinking. The data collection process involves scores of classroom observations per day pooled into a "profile" depicting student engaged learning across the entire school for a specified period of time, usually a full school day. In project ASSIST the data are collected periodically and each school's ASSIST team is prepared to lead the faculty in discussions about the data as a basis for self-reflection and goal setting. IPI data collectors must become valid coders of the classroom observations and demonstrate a coder-reliability and inter-rater reliability of .90 or higher to collect data for research. The web site of the Middle Level Leadership Center (www.MLLC.org) provides detailed discussions about the development of the IPI, the processes and protocols for codifying observations, and the workshops designed to establish coder reliability (Valentine, 2005).

The six categories of the IPI are (1) Student Disengagement, (2) Student Seatwork with the Teacher not Engaged, (3) Student Seatwork with the Teacher Engaged, (4) Teacher-Led Instruction, (5) Student Learning Conversations—Higher Order, and (6) Student Engaged Higher-Order Learning (Valentine, 2005). Generally,

the goals of most schools are to reduce the number of observations, meaning the frequency, of categories 1-2-3 while increasing the observations for categories 4-5-6. Most school faculties see the value of increasing learning experiences that authentically engage student in higher-order thinking and reducing the "busy" work often represented by worksheets and usually coded as a category 2 or 3 (Valentine, 2005). The analysis of the IPI data for both cohorts provided valuable insight about the actual form of instruction across the schools.

The findings presented in the lower two-thirds portion of Table 3 are for twelve pre-post analyses for each of the cohorts and the combined data set. In both sets of schools and the combined analyses the percentages of observations for category 6, Student Engaged Higher Order Learning, were significantly higher. The data for Student Learning Conversations, category 5, combined with Student Engaged Higher Order Learning, category 6, thus a measure of all student higher-order learning observed, were also significantly higher for both schools and the combined analysis. In a like manner, the data for categories 4-5-6, all higher-order learning combined with all teacher-led instruction, were also significantly higher for both cohorts and the combined analysis.

As noted, the goal of most schools is to increase categories 4-5-6, while decreasing categories 1-2-3. An analysis of category 1 did not show significant changes, but the analysis of category 2, student seatwork with the teacher not engaged, and category 3, student seatwork with the teacher engaged, were lower for both cohorts and significantly lower for cohort two and the combined analysis at the end of the Project. As expected other combinations of analyses for the six categories produced findings consistent with these results, documenting that the pre-post observational data differences for the ASSIST school were generally positive increases for categories that represented more use of higher-order learning and teacher led instruction and reduced use of student seatwork.

Conclusions/Implications

The purpose of Project ASSIST for the 1996-98 and 1998-2000 cohorts was to positively impact the school cultures/climates, instructional programs and practices, and leadership of participating schools by building the capacity among a teams of teachers and the principal to lead change from inside the school. To build a nucleus of leadership for change, each school's ASSIST team met bi-monthly with staff from the Middle Level Leadership Center to study best practices and strategies for applying best practices in the participating schools. MLLC staff engaged the teams in activities designed to build knowledge and transfer that knowledge to the teams' respective faculties. The development of teams involved strategies designed around the two "frameworks" for comprehensive, systemic change described in the early portions of this paper and itemized in the Framework schema of Appendices A, B, and C. The 1996-98 cohort of eight middle level schools were part of a larger cohort of 25 schools, including eight elementary and ten high schools from across the state of Missouri. The 1998-2000 cohort of 12 schools were all middle level schools from across the state. The activities the Center staff used to build the capacity for leadership of change for the ASSIST teams in the second cohort were more specifically embedded in middle level best practices, in contract to the more generic activities used to build capacity for the 25 schools of the 1996-98 cohort. This paper presented findings from pre and post data analyses for the 1996-98 and 1998-00 cohorts. Schools from the two cohorts volunteered to participate in the Project and were demographically representative of schools from across the state.

Positive changes in school culture and climate were evident. The most notable findings were those associated with an increased focus on the mission of the schools, the increased collaboration within the schools and increased perceptions of empowerment among faculty. Differences in the findings between the first and second cohort of schools were also evident.

Significant changes were also found in the analysis of the leadership variables from the pre and post assessment data. Collaboration was again a key concept, with greater skill in establishing collaboration evolving from the principals by the end of the Project. The collegial behavior of the principals supported the development of principal teacher relationships that are a key to both positive leadership and positive school climate. Again, differences in findings between the first and second cohort were evident.

The data analyses for the pedagogical component of ASSIST were especially informative. Significant findings were identified in teachers' perceptions from survey instruments and as described above, those perceptions were sometimes different between the two cohorts. But the most significant findings for pedagogy were the empirical data from the Instructional Practices Inventory classroom observations. Significant increases in best instructional practices were found for both cohorts. To a lesser degree than was the case for the components of culture/climate and leadership, the data for pedagogy were also more positive for the 1998-2000 cohort of schools.

The data from this study support the assumption that the ASSIST initiative developed the capacity among the teams of teacher leaders and principal to lead comprehensive, systemic change in middle level schools. Though the overall evidence was persuasive that the ASSIST initiative produced results in the three broad components of school culture/climate, leadership, and pedagogy, the different levels of success for the two cohorts poses important questions for future consideration. For example, were the teachers' perceptions in the first cohort more reflective of an initial lack of understanding of best practices when they completed the initial pre-assessment, therefore creating an artificially high set of initial assessment data that could not be surpassed as they developed a more accurate knowledge of best practices? In other words, were their expectations so low in the pre-assessment that they provided inflated data and more realistic about their shortcomings as they built knowledge throughout the ASSIST process? Some post-project discussions with teachers from the first cohort supported those possibilities.

Another question to consider is how advantageous is it for a school improvement process to be "grade-level" focused? The first cohort included elementary, middle, and high schools, whereas the second cohort was a group of "only" middle level schools. Narrowing the focus to middle level schools allowed the staff of the Center to use specific middle level examples and strategies. In addition, the level of expertise of the Center staff was more "middle" than elementary or high school. That deeper expertise may have influenced the results of change for the two cohorts. Yet another consideration is the size of the cohort groups. The second cohort was less than half the number of schools as the first cohort. The combined effect of fewer schools and only middle level school may have played a part in the more positive data for the second cohort of schools.

The very nature of the schools that participated in the project may have been an impacting factor. For example, some schools in the first cohort participated in Project Assist because their superintendents wanted the schools to improve and viewed the project as a vehicle for that improvement. Near the conclusion of the first cohort, middle level schools across the state were learning of the ASSIST process and beginning to request the opportunity to participate in the second cohort. The more "voluntary" nature of many of the second cohort schools, as compared to the more "directed" participation of the first cohort of schools may account for some of the differences in results for the two cohorts.

With evidence that the ASSIST process can impact school culture/climate, leadership, and pedagogy, the final critical question about the veracity of the ASSIST process is the degree to which the initiative can positively influences factors that will result in enhanced student achievement. Changes in state assessment measures during the multi-year process negated the opportunity to study the relationship of the ASSIST process to student achievement for the first cohort. Achievement data are currently being analyzed over a multi-year period for the schools in the second cohort. Middle level schools currently participating in a third cohort are now in the third year of a three-year commitment and may provide the greatest insight about the impact of ASSIST on student achievement. The challenges, however, are greater with cohort-three schools than with the first two cohorts because schools in the third cohort are all high-poverty, low-achieving urban schools who voluntarily participated in ASSIST in an effort to address severe achievement problems and avoid state sanctions as ineffective schools. The current focus for Project ASSIST is to make substantial change in achievement in a set of schools that has been deeply mired in poor performance for many years. Finding ways to move out of this downward spiral has been and continues to be the challenge for the Center staff and the ASSIST teams from the cohort-three schools.

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Appendix A: Project ASSIST Student-Centered Content Framework

CARING, COLLABORATIVE CULTURE
TRUSTING, RESPECTFUL CLIMATE

SUCCESS
for each
STUDENT

- Academic
- Social
- Emotional
- Physical

ORGANIZATIONAL LEADERSHIP

- **Principal/Administrative Team Leadership**
  - Establish Distributive/Participative Leadership (Capacity)
  - Establish Transformational Leadership (Change)
  - Establish Instructional Leadership (Pedagogy)
  - Establish Managerial Leadership (Efficiency)
- **Staff Leadership**
  - Accept Leader Roles (School Improvement Team)
  - Become a Community of Leaders (Staff)
  - Commit to Success for Each Student (Staff)
- **Parent Leadership**
  - Accept Leader Roles (Committees)
  - Provide Instructional Support (Volunteers)
- **Student Leadership**
  - Accept Leader Roles (Committees)
  - Develop Leadership (Student Governance)
- **Community Leadership**
  - Accept Leader Roles (Committees)
  - Provide Instructional Support (Volunteers)
- **District Leadership**
  - Understand Site-Level Needs
  - Support Site-Level Needs

ORGANIZATIONAL STRUCTURE

- **Change Processes**
  - Establish Comprehensive and Systemic Processes
  - Establish Vision-Driven not Deficit-Driven Change
  - Inform Change via Formative and Summative Data
- **Program Delivery**
  - Embed Basic Skills and Enrichment Programs
  - Require Core and Exploratory Curriculum
  - Provide Co-Curricular/Extracurricular Opportunities
  - Implement Student Grading and Homework Policies
  - Create Small Learning Communities/Teaming Structures
  - Implement Multi-Year/Extended Learning Relationships
  - Implement a Flexible Instructional Schedule
  - Implement Student-Adult Advisement Opportunities
  - Implement Multiple Transition Practices to/from School
  - Provide Service Learning/Volunteerism/Health Services
- **Personnel Policies**
  - Recruit, Select, Retain, Develop, Dismiss Aggressively
  - Engage Staff in the Design/Implementation of Continuous Authentic and Relevant Professional Development
  - Align Teaching Assignments to Teacher Ability and Program Needs
  - Organize Staff by Teams and Content Areas
  - Provide Teacher and Team Planning Times
- **Student Policies**
  - Assign/Group Students Heterogeneously
  - Establish Attendance and Behavior Policies
- **Resource Allocation**
  - Align with Vision/Goals

ORGANIZATIONAL PEDAGOGY

- **Standards-Based, Developmentally Appropriate Curriculum**
  - Align with State Standards
  - Align with Curricula of other Grade Levels
  - Align with Instruction and Assessment
  - Integrate across disciplines
  - Relevant and Authentic for Young Adolescents
- **Standards-Based, Developmentally Appropriate Instruction**
  - Align with State Standards
  - Align with Curriculum and Assessment
  - Engage Learners Actively (Mentally and Physically)
  - Relevant and Authentic for Young Adolescents
- **Standards-Based, Developmentally Appropriate Assessment**
  - Align with State Standards
  - Align with Curriculum and Instruction
  - Align with State/National Testing Methods
  - Relevant and Authentic for Young Adolescents
- **Grounded in Knowledge of Learner**
  - Match Academic Readiness and Capacity
  - Promote Socialization with Peers and Adults
  - Foster Emotional Self-Image and Self-Control
  - Foster Self-Esteem (General & Academic)
  - Match Physical Needs & Development

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Appendix B: Vision-Driven Process for Initiating School Improvement

Organizational Mission
"What is our organization's purpose?"

Organizational Values/Beliefs
"What do we value/believe about teaching, learning, professional development, and the process of change?"

Knowledge of Best Practice
"Do we understand best educational practice and systemic change?"

Assess School Action Plan
"How much of the plan have we accomplished?"

Organizational Vision
"What do we want our organization to look like over the next few years?"

Commitment to Best Practice
"Are we dedicated to the study of best practices and to the systemic processes for change?"

Periodic Assessment of Current Practice
"What data do we regularly collect and analyze?"

Organizational Goals
"How can we accomplish our organization's vision?"

Baseline Data About Current Practice
"What do we look like as we begin the process?"

Implement School Action Plan
"How do we collectively implement our action plan?"

Design Organizational Action Plan
"What objectives, tasks, responsibilities, and timelines are necessary to accomplish our goals?"

Organizational Component Focus Teams
What functions of our organization are necessary for effectiveness (e.g., Curriculum, Leadership, Facilities, Professional Development, etc.)?"

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Appendix C: Vision Driven Process of Internalized School Improvement

Organizational Values and Beliefs
"What do we value/believe about teaching, learning, professional development, and the process of change?"

Organizational Mission
"What is our organization's purpose?"

Knowledge of Best Practice
"Do we understand best educational practice and systemic change?"

Commitment to Best Practice
"Are we dedicated to the study of best practices and to the systemic processes for change?"

Vision
"What do we want our organization to look like over the next few years?"

Assessment of Current Practice
"What data do we periodically collect and analyze?"

Organizational Goals
"How do we accomplish our organization's goals?"

Implement School Action Plan
"How do we collectively implement our action plan?"

Assess School Action Plan
"How much of the plan have we accomplished?"

Organizational Component Focus Teams
"What functions of our organization are necessary for effectiveness? (e.g., Curriculum, Leadership, Facilities, Professional Development, etc.)"

Design Actions Plans
"What objectives, tasks, responsibilities, and timelines are necessary to accomplish our goals?"

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Appendix D
ASSIST Pre-Post Paired Sample Two-Tailed T-Tests

Culture/Climate Variables	Group	Source	Pre	Post	+/-	t	df	Sig.
Teacher Collaboration	96-98	SCS	2.80	3.18	0.38	-3.209	7	0.015
Teacher Collaboration	98-00	SCS	2.97	3.15	0.18	-2.910	11	0.014
Teacher Collaboration	96-00	SCS	2.90	3.18	0.28	-4.25	19	0.000
Teacher-Parent Partnership	96-98	SCS	3.31	3.50	0.19	-1.712	7	0.131
Teacher-Parent Partnership	98-00	SCS	3.13	3.41	0.28	-4.568	11	0.001
Teacher-Parent Partnership	96-00	SCS	3.20	3.45	0.25	-4.334	19	0.000
Unity of Purpose	96-98	SCS	3.76	3.88	0.12	-1.491	7	0.180
Unity of Purpose	98-00	SCS	3.51	3.96	0.45	-6.786	11	0.000
Unity of Purpose	96-00	SCS	3.61	3.93	0.32	-5.114	19	0.000
Professional Development	96-98	SCS	3.90	4.08	0.18	-3.065	7	0.018
Professional Development	98-00	SCS	3.73	3.87	0.14	-2.248	11	0.046
Professional Development	96-00	SCS	3.80	3.95	0.15	-3.604	19	0.002
Teacher Collegial Support	96-98	SCS	3.84	3.99	0.15	-1.327	7	0.226
Teacher Collegial Support	98-00	SCS	3.70	3.95	0.25	-4.316	11	0.001
Teacher Collegial Support	96-00	SCS	3.76	3.96	0.20	-3.765	19	0.001
Teacher Collegial Behavior	98-00	OCDQ-RM	2.74	2.81	0.07	-1.798	11	0.100
Teacher Committed Behavior	98-00	OCDQ-RM	3.05	3.17	0.12	-3.302	11	0.007
Teacher Disengaged Behavior #	98-00	OCDQ-RM	1.72	1.45	-0.27	4.213	11	0.001
Teacher Affiliation	98-00	OHI-M	3.17	3.33	0.16	-4.574	11	0.001
Positive Learning Climate	96-98	SAQ	2.41	2.14	-0.27	2.968	7	0.021
Positive Learning Climate	98-00	SAQ	3.46	3.54	0.08	-1.173	11	0.266
Positive Learning Climate	96-00	SAQ	3.04	2.98	0.06	0.956	19	0.351
High Expectations	96-98	SAQ	2.44	2.21	-0.23	2.484	7	0.042
High Expectations	98-00	SAQ	3.46	2.52	0.06	-1.085	11	0.301
High Expectations	96-00	SAQ	3.05	3.00	-0.05	0.954	19	0.352
Dedicated Staff	98-00	SAQ	3.83	4.00	0.17	-3.312	11	0.007
Teacher Decision Making	96-98	SPES	2.97	3.21	0.24	-2.232	7	0.061
Teacher Decision Making	98-00	SPES	2.98	3.13	0.15	-3.609	11	0.004
Teacher Decision Making	96-00	SPES	2.98	3.16	0.18	-3.853	19	0.001
Teacher Prof. Growth Opportu.	96-98	SPES	3.96	4.13	0.17	-1.358	7	0.217
Teacher Prof. Growth Opportu.	98-00	SPES	3.98	4.08	0.10	-2.416	11	0.034
Teacher Prof. Growth Opportu.	96-00	SPES	3.97	4.10	0.13	-2.411	19	0.026
Teacher Peer Status/Respect	96-98	SPES	4.15	4.25	0.10	-1.001	7	0.350
Teacher Peer Status/Respect	98-00	SPES	4.21	4.20	-0.01	0.209	11	0.838
Teacher Peer Status/Respect	96-00	SPES	4.18	4.22	0.04	-0.868	19	0.396
Teacher Work Autonomy	96-98	SPES	3.68	3.77	0.09	-0.634	7	0.546
Teacher Work Autonomy	98-00	SPES	3.73	3.69	-0.04	0.861	11	0.408
Teacher Work Autonomy	96-00	SPES	3.71	3.72	0.01	-0.189	19	0.852
Teacher Impact on School Life	96-98	SPES	4.10	4.18	0.08	-0.881	7	0.408
Teacher Impact on School Life	98-00	SPES	4.15	4.15	0.00	0.238	11	0.817
Teacher Impact on School Life	96-00	SPES	4.13	4.16	0.03	-0.761	19	0.456
Leadership Variables	Groups	Source	Pre	Post	+/-	t	df	Sig.
Collaborative Leadership	96-98	SCS	3.47	3.55	0.22	-1.734	7	0.127
Collaborative Leadership	98-00	SCS	3.25	3.51	0.26	-3.210	11	0.008
Collaborative Leadership	96-00	SCS	3.34	3.58	0.24	-3.559	19	0.002
Supportive Principal	98-00	OCDQ-RM	2.66	2.75	0.09	-1.763	11	0.106
Directive Principal	98-00	OCDQ-RM	1.90	1.86	-0.04	0.851	11	0.413
Restrictive Principal	98-00	OCDQ-RM	2.38	2.35	-0.03	0.725	11	0.483
Strong Principal Leadership	96-98	SAQ	2.48	2.18	-0.30	3.798	7	0.007
Strong Principal Leadership	98-00	SAQ	3.33	3.52	0.19	-2.424	11	0.034
Strong Principal Leadership	96-00	SAQ	2.99	2.98	-0.01	0.091	19	0.928
Collegial Leadership	98-00	OHI-M	2.78	2.93	0.15	-2.720	11	0.020
Principal Influence	98-00	OHI-M	2.78	2.91	0.13	-2.002	11	0.071

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Pedagogical Variables	Group	Source	Pre	Post	+/-	t	df	Sig.
Academic Emphasis	98-00	OHI-M	2.57	2.99	0.43	-9.395	11	0.000
Vert/Horiz Curricul.Articulation	96-98	SAQ	2.17	2.17	0.00	0.019	7	0.985
Vert/Horiz Curricul.Articulation	98-00	SAQ	3.65	3.81	0.17	-2.867	11	0.015
Vert/Horiz Curricul.Articulation	96-00	SAQ	3.06	3.16	0.10	-2.139	19	0.046
Early Identif. Special Needs	96-98	SAQ	2.33	2.00	-0.33	2.320	7	0.053
Early Identif. Special Needs	98-00	SAQ	3.59	3.88	0.29	-3.543	11	0.005
Early Identif. Special Needs	96-00	SAQ	3.09	3.13	0.04	-0.418	19	0.681
Frequent Monitoring Stu./Inst.	96-98	SAQ	2.36	2.11	-0.26	4.362	7	0.003
Frequent Monitoring Stu./Inst.	98-00	SAQ	3.42	3.69	0.27	-3.607	11	0.004
Frequent Monitoring Stu./Inst.	96-00	SAQ	3.00	3.05	0.06	-0.764	19	0.454
Resource Support Class Materials	98-00	OHI-M	2.78	2.97	0.19	-4.119	11	0.002
Teacher Self-Efficacy Stu. Lrng.	96-98	SPES	4.20	4.29	0.09	-0.974	7	0.363
Teacher Self-Efficacy Stu. Lrng.	98-00	SPES	4.25	4.24	-0.02	0.534	11	0.604
Teacher Self-Efficacy Stu. Lrng.	96-00	SPES	4.23	4.26	0.03	-0.633	19	0.534
Stu. Engaged High-Order Lrng.	96-98	IPI-6	15.63	28.00	12.38	-3.246	7	0.014
Stu. Engaged High-Order Lrng.	98-00	IPI-6	17.92	25.25	7.33	-3.978	11	0.002
Stu. Engaged High-Order Lrng.	96-00	IPI-6	17.00	26.35	9.35	-43898	19	0.000
Stu. High-Order Lrng. Conversat.	96-98	IPI-5	3.63	1.38	-2.25	1.350	7	0.219
Stu. High-Order Lrng. Conversat.	98-00	IPI-5	3.67	2.25	-1.42	1.445	11	0.176
Stu. High-Order Lrng. Conversat.	96-00	IPI-5	3.65	1.90	-1.75	2.018	19	0.058
Teacher-Led Instruction	96-98	IPI-4	42.75	41.88	-0.88	0.213	7	0.837
Teacher-Led Instruction	98-00	IPI-4	27.00	36.92	9.92	-3.775	11	0.003
Teacher-Led Instruction	96-00	IPI-4	33.30	38.90	5.60	-2.222	19	0.039
Stu. Seatwork Teacher Engaged	96-98	IPI-3	23.38	18.88	-4.50	1.503	7	0.177
Stu. Seatwork Teacher Engaged	98-00	IPI-3	21.83	19.33	-2.50	2.236	11	0.047
Stu. Seatwork Teacher Engaged	96-00	IPI-3	22.45	19.15	-3.30	2.456	19	0.024
Stu. Seatwork Tchr not Engaged	96-98	IPI-2	11.13	7.25	-3.88	1.404	7	0.203
Stu. Seatwork Tchr not Engaged	98-00	IPI-2	23.83	11.17	-12.67	4.503	11	0.001
Stu. Seatwork Tchr not Engaged	96-00	IPI-2	18.75	9.60	-9.15	4.155	19	0.001
Student Disengagement	96-98	IPI-1	4.00	2.63	-1.38	1.487	7	0.181
Student Disengagement	98-00	IPI-1	5.75	5.17	-0.58	0.249	11	0.808
Student Disengagement	96-00	IPI-1	5.05	4.15	-0.90	0.630	19	0.536
Student Higher-Order Learning	96-98	IPI-5&6	19.25	29.38	10.13	-2.694	7	0.031
Student Higher-Order Learning	98-00	IPI-5&6	21.58	27.50	5.92	-2.805	11	0.016
Student Higher-Order Learning	96-00	IPI-5&6	20.65	28.25	7.60	-3.898	19	0.001
Stu Hig-Ord Lrng/Tchr.-Led Inst.	96-98	IPI-4&5&6	62.00	71.25	9.25	-2.595	7	0.036
Stu Hig-Ord Lrng/Tchr.-Led Inst.	98-00	IPI-4&5&6	48.58	64.42	15.83	-7.404	11	0.000
Stu Hig-Ord Lrng/Tchr.-Led Inst.	96-00	IPI-4&5&6	53.95	67.15	13.20	-6.593	19	0.000
Tchr Led Inst/Stu Seatwork w/tch	96-98	IPI-3&4	66.13	60.75	-5.38	1.667	7	0.139
Tchr Led Inst/Stu Seatwork w/tch	98-00	IPI3&4	48.83	56.25	7.42	-4.277	11	0.001
Tchr Led Inst/Stu Seatwork w/tch	96-00	IPI3&4	55.75	58.05	2.30	-1.067	19	0.299
Student Seatwork	96-98	IPI-2&3	34.50	26.13	-8.38	2.298	7	0.055
Student Seatwork	98-00	IPI-2&3	45.67	30.50	-15.17	5.579	11	0.000
Student Seatwork	96-00	IPI-2&3	41.20	28.75	-12.45	5.509	19	0.000
Stu.Seatwork/Stu.Disengagement	96-98	IPI-1&2&3	38.50	28.75	-9.75	2.720	7	0.030
Stu.Seatwork/Stu.Disengagement	98-00	IPI-1&2&3	51.42	35.67	-15.75	7.231	11	0.000
Stu.Seatwork/Stu.Disengagement	96-00	IPI-1&2&3	46.25	32.90	-13.35	6.678	19	0.000
Stu.Seatwork w/o Tchr./Stu. Dis.	96-98	IPI-1&2	15.13	9.88	-5.25	1.829	7	0.110
Stu.Seatwork w/o Tchr./Stu. Dis.	98-00	IPI-1&2	29.58	16.33	-13.25	7.111	11	0.000
Stu.Seatwork w/o Tchr./Stu. Dis.	96-00	IPI-1&2	23.80	13.75	-10.05	5.593	19	0.000

Group: Defines Cohort by Year e.g. 1996-1998, 1998-2000, 1996-1998 and 1998-2000. Source: SCS: School Culture Survey; SAQ: Staff Assessment Questionnaire; SPES: School Participant Empowerment Scale; OCDQ-RM: Organizational Climate Description Questionnaire-Revised Middle; OHI-M: Organizational Health Inventory-Middle; IPI: Instructional Practices Inventory. Pre/Post: Means for each variable; Change: Difference in Means. See www.MLLC.org for detailed descriptions and appropriate author contact information for use of the data collection instruments used in Project ASSIST.