Teacher Perceptions of Collaboration and Engagement in Five Twenty-First Century Restructuring Schools in Indiana

Cynthia L. Kujawski
Western Michigan University

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TEACHER PERCEPTIONS OF COLLABORATION AND ENGAGEMENT IN FIVE TWENTY-FIRST CENTURY RESTRUCTURING SCHOOLS IN INDIANA

by

Cynthia L. Kujawski

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TEACHER PERCEPTIONS OF COLLABORATION AND ENGAGEMENT IN FIVE TWENTY-FIRST CENTURY RESTRUCTURING SCHOOLS IN INDIANA

Cynthia L. Kujawski, Ed.D.
Western Michigan University, 2000

School restructuring is a process which can facilitate school improvement. One approach to school improvement is based on the principles of learner-centered instruction. These principles, “by focusing on students and bringing their frames of reference to the implementation of educational innovations” (McCombs & Lambert, 1998, p. 501), relate that more students will be successful in school, and the innovations will be more effective in improving achievement.

In Indiana, five restructuring “Indiana 2000” school proposals contained one or more goals for the development of collaboration and teacher-student engagement. Teachers at these restructuring schools completed a 60-item, investigator-created questionnaire designed to assess their perceptions of the inclusion of students as active engaged participants in the learning process within the framework of a more collaborative work environment. The questionnaire also elicited teacher perceptions about factors that enhanced or detracted from collaboration and engagement, including those specific inservices which facilitated collaboration and engagement.

The Pearson $r$ correlation was used to measure the relationship between the collaboration and student engagement variables for each school. The results of the questionnaire revealed that two of the five schools demonstrated a moderate positive relationship and two schools demonstrated a low positive relationship between the variables of collaboration and engagement. Teachers perceived the factor staff
ownership of the change process as enhancing collaboration, and the factor insufficient time for interaction, as detracting from collaboration. Teachers perceived three factors as enhancing student engagement: (1) risk-free environment to make changes, (2) belief that learner-centered instruction improves learning, and (3) assistance and support from colleagues. The factors perceived as detracting from student engagement included the following: (a) competing demands on time, (b) insufficient time to practice new skills, and (c) lack of opportunities to discuss instructional changes.

Teachers reported the inservices focused on team building, the C.L.A.S.S. Project (The Brain Compatible Classroom), and on leadership topics as those which enhanced collaboration. The inservices most helpful to teachers to engage students included Glasser's work, disciplinary strategies, and thematic learning.
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A special thank you to the Coquillard School teachers who served as my inspiration for this project. As a school principal, I was fortunate to observe the strength of collaboration in terms of accomplishments, when teachers agreed on school goals and worked diligently to accomplish them. Their ongoing efforts to work as a team to restructure their school for all children continues to be commendable.

A special thank you is extended to Coquillard, Edison Middle School, and the South Bend Community Schools' speech pathology staff who participated in the pilot study for this dissertation. I also want to include the five restructuring school participants, the individual teachers and principals in Indiana who willingly gave their time to be involved, as well as Dr. Ilene Block of the Indiana Department of Education, who assisted with the initial coordination of this project.

Lastly, I would like to thank my husband, Paul, for his support and sacrifices during this tedious process, and my two children, Erin and Ryan. It is my hope the children can retain the life lesson that persistence throughout any endeavor ultimately has one reaching the desired goals.

Cynthia L. Kujawski
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CHAPTER I

INTRODUCTION

The call to restructure schools was born from new challenges facing society as well as the educational system. While today's schools are established with order, uniformity and passivity, "massive changes in our world call out for diversity, initiative and inventiveness" (Lieberman, Darling-Hammond, & Zuckerman, 1991, p. 13). As Larry Cuban (1990) has noted, "Reforms do return again, again and again" (p. 11), but the important question is whether any substantive change has occurred as a result of these reforms. The real questions are, why have past reforms failed, why are schools hard to change, and what can be done to improve the teaching-learning process? (Cuban, 1990; Elmore, 1990; Jacobson & Conway, 1990). To find the answers to these questions, researchers must focus on the classroom teacher and the barriers to educational improvement. In school restructuring, teachers must become part of the active solution to problems instead of passive recipients (Bullard & Taylor, 1992; Kerr, 1987).

Several states have their own uniquely designed restructuring legislation. Indiana initiated several restructuring initiatives which focused on elementary, middle and high school renewal efforts. The first legislation was a mandate for the "Twenty-First Century Schools Initiative" in 1990. Since then, a second piece of legislation entitled "Indiana 2000" was approved. Additionally there were two elementary projects entitled "Relearning Initiative" and "Carnegie Middle School Initiative." Regardless of title, each of these initiatives with different emphases, were

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concrete examples of how Indiana was giving substantial meaning to the restructuring rhetoric.

While there were many ways to define restructuring, in Indiana the term meant the creation of new learning environments that were fundamentally different from those that currently existed. Particularly, it meant the conditions of teaching and learning were changing while simultaneously altering the rules, roles and relationships that supported school purposes. Restructuring also addressed the relationship of school to community and home environments, through envisioning ways to increase commitment by parents, business and community supporters. (Indiana Department of Education, 1990).

Schools that decided to apply for the Indiana 2000 designation filed a letter of intent to apply, followed by an application addressing criteria established by the Indiana Department of Education. The applications were generally reviewed for content regarding the school’s intent to change, and a plan for checking the school’s vision and its impact on educational practices and student learning outcomes. Each school submitted information in the areas of Commitment, Visioning, Evaluation, Professional Development and Expanded Management, Waivers, an Admission Plan for students residing outside of the district, and demographic data (Indiana Department of Education, 1990).

The collaboration of all stakeholders was necessary as state educators planned for changes in goals, evaluation methods and governance. As a result of a joint application process, six schools in Indiana received the original “Indiana 2000” designation. One primary component of their proposals supported the inclusion of students as actively engaged participants in the learning process within the framework of a more collaborative work environment. This study investigated the perceptions of
Indiana educators regarding the existence and strength of collaboration at these school sites, and addressed the issue of whether the strength of collaboration related to teachers' institution of student engagement practices.

Restructuring for School Improvement

Since the failure of past reform efforts and the release of several national reports there has been a call to restructure schools. Restructuring was a tool used to improve schools (Fullan, 1991; Newmann & Wehlage, 1995; Schlechty, 1990). It had no precise definition but the term implied that schooling needed to be comprehensively designed with substantial changes from conventional practice (Elmore, 1990; Newmann & Wehlage, 1995). New configurations of power and authority required teachers to perform new roles with requisite new skills and attitudes. Structural reforms such as shared decision-making, school choice, new forms of assessment and external standards, or the improvement of parts of schools, were not enough (Conley, 1991b; Elmore, 1990). These initiatives did not necessarily lead to improved student achievement. Process goals have been highlighted in school restructuring. The process goals involved the collaboration of all school stakeholders as they planned for changes in their schools goals, methods, evaluation and governance. It was the energizing collaboration that led teachers to improving the way they teach, thus leading, ultimately, to gains in student achievement (Ashton & Webb, 1986; Fullan, 1991; Sergiovanni & Moore, 1989).

Educational reforms have been expensive and not successful (Cuban, 1990; Mitchell, 1990; Schlechty, 1990). The numerous, discrete innovations have not yielded desired improvements in teaching practice or gains in student achievement (Ashton & Webb, 1986; Conley, 1991b; Fullan, 1991; Seashore-Louis & Miles,
1990). The research on innovation and change has demonstrated that the success of any reform rested not simply on the quality of the reform proposal, but on the process by which the reform was brought about (Ashton & Webb, 1986; Barth, 1990).

As a result of this new research and past failures, school reform became comprehensive with a focus on long term systematic change (Conley, 1991a; David, 1991; Murphy & Hallinger, 1993; Newmann & Wehlage, 1995). Nationally, a number of state and privately funded efforts were launched and entitled school restructuring initiatives. In general, school restructuring was complex and multi-dimensional, with a number of components and themes (Conley, 1991b). One of the key themes of school restructuring was the changing roles and responsibilities of parents, teachers, principals, and students (Barth, 1990; David, Perney, & White, 1989; Elmore, 1990). Another aspect of role change was the movement of the school from the traditional school culture, with the existing isolation of teachers, to one in which teachers worked collaboratively to improve practice. Teacher collegiality and elements of collaborative work cultures were related to the successful implementation of change efforts (Fullan, 1990). Another key theme in school restructuring was the shift from the traditional teacher-centered classroom with students in a passive role to the student-centered classroom (Murphy & Hallinger, 1993). This new paradigm of student-centered instruction characterized students as actively engaged in the educational process and responsible for their own learning.

Failure of Early Reform Efforts

Since the release of A Nation at Risk (National Commission on Excellence in Education, 1983), there has been widespread agreement that school reform was

As a result of previously failed reform efforts experts and practitioners recognized the need for comprehensive reform. The direction of change efforts took two very different forms. These two important attempts at school reform were frequently referred to as “first” and “second” wave reforms (Farrar, 1990; Petrie, 1990). First wave reforms stressed top-down school improvement through centralized regulatory mechanisms; however, these reforms occurred at significant cost without verifiable improvement in teaching practice or student achievement (Hawley, 1988).

The failure of first wave reforms spurred the development of second wave reform proposals. The second wave proposals broadened the reform agenda to include emphasis on special needs children, effective schools, teaching practices and professionalism, and school restructuring (Metz, 1988; Petrie, 1990).

As one result of second wave reforms, a number of state and privately funded school restructuring initiatives were launched across the nation. Generally, the focus of these initiatives was on the restructuring of the educational system as a whole with a primary goal of higher academic achievement for all students (David, 1991;
Lieberman & Miller, 1990). This systematic focus contrasted with the single, ad hoc innovations which evolved from prior first wave efforts.

One key theme of school restructuring not directly addressed in the effective schools research, was the changing roles and relationships of parents, teachers, principals and students (Barth, 1990; Elmore, 1990; Lieberman & Miller, 1990). These role changes characterized this restructuring effort. One aspect of the role change was movement from a traditional school culture with a focus on teacher isolation, to a more collaborative work environment in which teachers worked collegially with students, parents and the principal to improve education (Conley, 1991b; Lieberman, Darling-Hammond, et al., 1991; Murphy, 1991). The elements of collaborative work cultures have been linked to the successful implementation of change efforts (Fullan, 1990), the development of a cooperative student population (Smith & Scott, 1989), new teacher leadership roles (Murphy & Hallinger, 1993), instructional effectiveness (Newmann & Wehlage, 1995), and improved student achievement (Lieberman & Miller, 1984; Smith & Scott, 1990).

A second theme in school restructuring was the shift from the traditional teacher-centered classroom to the student-centered classroom (Murphy & Hallinger, 1993). This new paradigm was one in which students were actively engaged in the educational process having choices when given responsibility for their own learning. With students assuming an increasingly active role, the teacher’s role evolved from directive to facilitative. Positive benefits attributed to student engagement included higher student participation, increased ownership and responsibility in the learning process, and desired outcomes resulting in improved student motivation and increased achievement (Darling-Hammond, Ancess, & Falk, 1995; McCombs & Whisler, 1997; Newmann & Wehlage, 1995).
Smith and Scott (1990) reported no single model of the collaborative school existed; however, a review of the school collaboration and engagement literature provided the groundwork for definitions of school collaboration and teacher-student engagement. Smith and Scott (1990) described collaboration as having emphases on teamwork and norms of collegiality and continuous improvement. Additionally, the description included teacher involvement in decisions regarding school goals and goal implementation with commensurate responsibility and accountability for school outcomes. For this study, collaboration included three dimensions: teacher to teacher collegial interactions, school principal sharing of authority with teachers, and teacher to parent interactions.

Experts have cited a number of factors that impeded change and contributed to the traditional isolation of teachers. The factors included a lack of opportunity for professional growth and continuous learning and the support of others to discuss academic problems (Elmore, 1990). The factors also included the lack of commitment to the profession (Devaney & Sikes, 1988), development of self-efficacy (Ashton & Webb, 1986), collective consensus, and ownership of a collective vision and goals (Rosenholtz, 1989). These factors contributed to compel teachers to learn through trial and error (Rosenholtz, 1989), and to rely on individual judgment.

In contrast, the benefits of collaboration have included staff harmony, respect between teachers and principals (Fullan, 1991), a professional work environment with time for inquiry and reflection (Smith & Scott, 1990), teacher satisfaction (Barth, 1990; Smith & Scott, 1990), teacher leadership (Barth, 1990; Murphy & Hallinger, 1993; Rosenholtz, 1989), a greater likelihood of implementation of change initiatives (Joyce & Showers, 1988; Fullan, 1990), increased learning (Lieberman, Saxl & Miles, 1988; Schlechty, 1990), and a cooperative student body (Smith & Scott,
1990). These types of benefits were relevant to the important purpose of collaboration which Smith and Scott (1990) described as the facilitation of instructional effectiveness.

The definition of teacher-student engagement practices was derived from student-centered instruction (Murphy & Hallinger, 1993), constructivist principles (Brooks & Brooks, 1993), and a general definition of engagement (Byrk & Driscoll, 1988). Specifically, Byrk and Driscoll included components of shared goals/objectives, frequent communication, and mutual coordination and influence. Teacher-student engagement practices transformed the learner from a passive to an active role, and accorded the student choices in instruction, curriculum and assessment (Lambert & McCombs, 1998). Learners assumed some additional responsibility for their own learning. These tenets formed the basis for the definition of teacher-student engagement for this study, reported in this dissertation, specifically, those classroom practices which characterized students as active participants in education.

“Teacher to Teacher” Collaboration and Instructional Effectiveness

Teacher to teacher collaboration represented one of three dimensions of collaboration. Little (1982) reported a number of formal and informal teacher behaviors which characterized teachers in collaborative schools. Several case studies relating to the effective schools research suggested a correspondence between collaborative norms and student achievement, teachers’ openness to learning, and the overall improvement of teaching and learning (Little, 1982; Rosenholtz, 1989).
"Teacher and Principal" Collaboration and Instructional Effectiveness

Teacher and principal collaboration represented another dimension of collaboration. Teachers and principals together assumed responsibility for creating a collaborative environment, with the principal as the key person for initiation and facilitation (Fullan, 1991). Strategies such as principal feedback on teaching (Little, 1982), and principal support for collegial interactions in the form of time, resources and encouragement were mentioned (Lieberman et al., 1988).

"Teacher and Parent" Collaboration and Instructional Effectiveness

Teacher and parent collaboration was the third dimension of collaboration. This dimension was added to Smith and Scott’s (1990) definition of collaboration because of the goals for increased parental involvement in the "Indiana 2000" school proposals, and the recognized emphasis on parental roles in restructuring schools (Murphy & Hallinger, 1993).

The view of parental involvement in restructuring schools was enlarged as parents were provided input and encouraged to become active in the educational process to ensure student success. The powerful influence of parents in these situations required further documentation, but there was reason to suggest possible important effects on student learning (Murphy & Hallinger, 1993).

Teacher-Student Engagement and Instructional Effectiveness

Teacher-student engagement with the learner in an active role with choices in learning was related to increased student motivation (Murphy & Hallinger, 1993). In addition to motivation, teacher-student engagement in traditional schools was
demonstrated to be associated with student achievement (Byrk & Driscoll, 1988; Rosenholtz, 1989). Instructional effectiveness for teachers, as well as a number of other positive benefits for students, resulted from engagement (Newmann & Wehlage, 1995).

Collaboration and Teacher-Student Engagement

Most teachers used a very narrow range of teaching practices (Sirotnik, 1983), and new teaching practices were not adopted by teachers without extensive, carefully designed training (Joyce & Showers, 1988). In addition to training, the implementation of new teaching practices was linked to collaboration (Fullan, 1991; Lieberman et al., 1988).

Indiana generated its own initiative for school restructuring formally with legislation entitled “Twenty-First Century Schools.” It was jointly sponsored by the Governor’s Office and the Indiana Department of Education and designed for the purpose of promoting changes in schools.

Participating schools engaged in a process which involved all stakeholders that cared about schools including parents and community members. Using the input of stakeholders, schools delineated goals and evaluation methods for those goals. In a long-term process, schools used questions for discussion on the issues of how children learned best and how to best assess student progress. Additionally, schools discussed how school governance could be expanded utilizing all stakeholders.

Six schools were selected based on an extensive grant application process, with proposal content focused on governance, parental involvement, and innovative curriculum and instruction (Indiana Department of Education, 1995). The selected sites were representative of the northern, central, and southern regions of the state.
Each of the "Indiana 2000" school proposals supported the inclusion of students as active engaged participants in the learning process within the framework of a more collaborative work environment. Therefore, with the need for accountability, what were the perceptions of Indiana educators at these restructuring schools regarding their collaboration and student engagement practices? Additionally, what were the factors that enhanced or detracted from accomplishment of these practices?

Each of the "Indiana 2000" restructuring schools contained one or more goals for the development of collaboration and teacher-student engagement. These teacher-student engagement practices consisted of a new set of teaching practices with variant focuses and goals. Hence, what was the relationship between each teacher's perception of school collaboration, and each teacher's implementation of teacher-student engagement practices?

Statement of the Problem

A need exists to determine the effectiveness of the Indiana 2000 reform initiative on faculty and staff collaboration and student engagement practices, and to investigate other factors influencing the educational process.

Purpose of the Study

The purposes of the study were (a) to examine the strength of the relationship between school collaboration and teacher-student engagement practices, (b) to identify the factors that have contributed to achievement of collaboration and teacher-student engagement practices, and (c) to determine the factors that detracted from or compromised collaboration and teacher-student engagement practices. A
A strong relationship between collaboration and engagement should suggest the need for further study of collaboration and its impact, and would highlight factors for control for future study.

**Significance of the Study**

There was a paucity of educational research that focused on the work culture of educators, and the relationship of the school culture to the improvement of teaching practices. Extending beyond traditional measures of progress such as student achievement and attendance, this research constituted the first attempt to assess individual teacher perceptions of school collaboration and teacher-student engagement practices at restructuring sites.

The data provided the schools with feedback for reflection and discussion of restructuring progress. Also, the data served as a source of information to educators and state department officials for further study of the relationship between school collaboration and teacher-student engagement, and the relationship with instruction and student achievement.

**Pilot Study and Development of Data Collection Instrument**

**Item Analysis**

Items for the data collection instrument were derived from a number of sources for the variables of collaboration and teacher-student engagement. For the collaboration variable one source was Smith and Scott's (1990) collaborative model. Another was Little's (1982) "critical practices of adaptability." Items were created from descriptions of collaborative practices from these sources. For the variable of
teacher-student engagement, items were derived from sources with a focus on student-centered instructional practices and constructivist principles. The five proposals of the "Indiana 2000" schools participating in the study comprised another source for developing the instrument's items.

For internal validation of the instrument an item analysis procedure was completed for each of the questionnaire's items for the variables of collaboration and engagement utilizing 20 preservice teachers. Decisions on item retention were made using a discrimination index of 0.80 or above. Items below a discrimination index of 0.80 were revised for a second item analysis. This second analysis was completed using the responses of 20 practicing teachers. Based on the results of the second item analysis procedure using the same criteria, the instrument was revised for the pilot study.

The pilot study was conducted at two public schools, one elementary and one middle school, neither of which was involved in this study. Both of these schools had been identified as "Indiana 2000" restructuring schools with active and current restructuring initiatives during the 1996–97 school year. Eighteen elementary and 21 middle school teachers (80% and 50% of the school staffs, respectively) participated in the pilot. The investigator administered the data collection instrument. The instrument consisted of three parts: a 50-item Likert scale questionnaire, six checklist questions on demographics and inservice education, and four checklist questions on enhancers and detractors for the variables of collaboration and teacher-student engagement.
Data Collection Procedures

Upon identification of the six possible “Indiana 2000” school sites, the district superintendents were contacted by letter requesting permission to survey the school staffs. Upon receipt of the superintendents’ consent forms, building principals were contacted by letter regarding participation procedures. The student investigator met with building principals and school representatives in the early stages of design to discuss general parameters of the study, to obtain background information on each restructuring school’s progress, and to answer preliminary questions.

The investigator forwarded follow-up packets to principals with instructions on consent forms, distribution and collection, procedural time requirements, and background information on the study. The investigator visited each school site in the spring of 1997 and group-administered the questionnaire to participants, and obtained background information utilizing the principal interview. The principal provided absentee participants a questionnaire and an envelope for mailing the completed survey directly to the investigator.

Analysis of Data

Hypothesis: It is hypothesized that those teachers who report greater indications of a collaborative school work culture (collaboration) will report more instances of teacher-student engagement (engagement) in their classrooms.

A Pearson $r$ correlation of each teacher’s “school collaboration” score and each teacher’s “teacher-student engagement” score was used to test the hypothesis. For this study the independent variable was collaboration. The dependent variable was teacher-student engagement.
Data collected from Part II, the demographic section, were reported in narrative form for each of the schools. Data collected from Part III, the enhancers and detractors for the variables of collaboration and student engagement and teacher inservice education, were reported in narrative as well as in frequency response charts.

The original “Indiana 2000” proposals and yearly reports of progress for the five identified schools were used for background information and were summarized in Appendix B. Principal interview data were collected by the student investigator at each school site and were reported in narrative form in Appendix C.

Limitations of the Study

Limitations of the study included:

1. The study was limited to five participating “Indiana 2000” schools, with one of the eligible schools declining participation in this study.

2. The study was limited to two elementary schools, one middle school, and two high schools.

3. The study was limited to data generated by an investigator-created questionnaire consisting of items pertaining to school collaboration and teacher-student engagement practices.

Organization of the Study

The study is organized into five chapters. These include the following: Chapter I—Introduction, Chapter II—Review of Related Literature, Chapter III—Research Design, Chapter IV—Analysis of Data; and Chapter V—Conclusions and Recommendations.
CHAPTER II

REVIEW OF RELATED LITERATURE

A need exists to determine the effectiveness of the Indiana 2000 reform initiative on teaching staff collaboration and student engagement practices, and to investigate other factors influencing educational process. The purposes of the study were (a) to examine the strength of the relationship between school collaboration and teacher-student engagement practices, (b) to identify the factors that have contributed to collaboration and teacher-student engagement practices, and (c) to determine the factors that detracted from or compromised collaboration and teacher-student engagement practices.

Failure of Educational Reform

During the past 30 years a number of educational change efforts, estimated at hundreds, have failed to influence progress in education (Cuban, 1988a, 1990; Fullan, 1991). These reform efforts failed for a variety of reasons. One reason was that schools were inundated with innovations generated by multi-level sources within the system (Fullan, 1991). The potential sources of innovations included federal, state, and local school districts, individual schools and teachers. These multiple sources acted independently of each other and originated innovations. This resulted in schools being continually involved in both large and small scale changes (Fullan, 1991).

The vast number of reforms proposed have further complicated reform implementation (Fullan, 1991; Sarason, 1982). The number of reforms introduced in
schools during the 1960s and 1970s cannot be estimated (Fullan, 1991). Unfortunately, during the 1960s schools were recognized for the sheer number of innovations adopted, not for the quality (Fullan, 1991). This massive, unmanageable adoption resulted in noticeable failure of those reforms in the 1970s and early 1980s (Cuban, 1988a; Fullan, 1991).

In addition to the problems caused by the excessive number of innovations imposed or adopted voluntarily, difficulties arose when school leaders rapidly adopted innovations without clear conception of reasons for the change, or the meaning of the change itself (Anderson, 1989; Fullan, 1991). Disparate innovations were often prompted by very different philosophies of education (Mitchell, 1990). These new measures were piecemeal or bandaid changes promoted because of their simplicity and supposed ease of implementation. Instead of being effectively implemented, the reforms were partially attempted or not implemented at all. Thus, the number, sources, and the complexity of the change efforts complicated the individual school's ability to understand the meaning of the proposed changes (Fullan, 1991; Sarason, 1982). These constricting factors also affected the individual school's ownership of the proposed change effort (Huberman & Miles, 1984), and contributed to the failure of reforms being put into practice (Cuban, 1988b). Both of these missing factors, the meaning and the ownership of the change process, are considered as essential to the implementation of successful change efforts. (Fullan, 1991; Prospectus, 1988). When studying reforms, it is also important to examine the initiatives for patterns of failure (Cuban, 1988b).

The failure of past reform efforts has been attributed to poor quality of proposed changes (Fullan, 1991), faddism (Cuban, 1988a), and lack of clarity and multidimensionality of bureaucratic constraints (Huberman & Miles, 1984;
Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988), failure to encourage collaboration and provide multiple levels of support (Fullan, 1991), and problems with staff development and resource assistance (Huberman & Miles, 1984). Other problems noted were teacher resistance (Corbett & Wilson, 1990), lack of patience with the measurement of results (Kirst, 1991; Mitchell, 1990), lack of coping skills among participants (Fullan, 1991), and failure of participants to understand the change process (Cuban, 1990). Additionally, some innovations were resisted because the innovators appeared primarily interested in advancing their own careers (Fullan, 1991), or when changes were initiated and promoted by university professors who were seen as outsiders (Huberman & Miles, 1984). A prior history of failed change efforts in a district was also a negative implementation factor (Fullan, 1991).

Implementation of reforms was also affected by initial overenthusiasm, and impatience caused by failure to understand the time required for effective change to occur (Fullan, 1991). Reform efforts were hindered by the false assumption that the educational change process is rational and linear, and the failure to understand schools as complex sociopolitical organizations (Fullan, 1991; Kirst, 1991; Patterson, Purkey, & Parker, 1986). The poor results of educational change efforts, and the lessons learned from past efforts, caused a shift from the rational and linear models of change (Patterson et al., 1986) to a more comprehensive systems approach called restructuring (Fullan, 1991; Kirst, 1991).

Conceptual Framework of Restructuring

In order to conceptualize restructuring it is useful to differentiate the three groupings into which the majority of school activities can be sorted: renewal, reform,
and restructuring (Conley, 1991b). The distinctions are not determined by the actual activities but by the intent of the activities.

Experts defined renewal activities as those that assisted the organization in improving the quality or efficiency of change efforts. This type of activity implied a "backward look" to improve the future (Conley, 1991b, p. 11). It did not involve any re-examination of fundamental beliefs or practices. Examples of renewal activities included peer coaching programs, inservices on cooperative learning, and curriculum review and revisions.

Changes or activities that could be classified in the reform category were those that involved modification of existent procedures, rules, and requirements that enabled the organization to adapt the way it operated to new circumstances, requirements, and regulations (Conley, 1991b). Two specific characteristics of reform were the focus on procedures and policies, and the impetus for change deriving from external sources such as a board of education or state department. Examples of reform activities included the revision of graduation requirements, modifications of attendance policies, and the development of discipline policies. As the result of reform activities, new rules or procedures were established. Neither reform nor renewal activities involved examination of fundamental assumptions or practices (Conley, 1991b).

The third category of activities consisted of the examination of beliefs and practices. Numerous definitions of restructuring and the types of activities associated with restructuring were described in the literature (Conley, 1991b; Fullan, 1991; Lieberman & Miller, 1990). The lack of a consistent or precise definition paradoxically resulted in both a strength and weakness in the restructuring movement (Conley, 1991b; Newmann, 1991; Peterson & McCarthy, 1991). For example, the
flexibility in definition allowed a multitude of efforts to be labeled as "restructuring." This same broadness, however, resulted in the mislabeling of all new change efforts as restructuring (Olson, 1988).

A consistent definition of restructuring with common elements was derived from the definitions of restructuring proponents. Elmore (1990) defined school restructuring as comprised of three broad dimensions: changes in the way teaching and learning occur; changes in the occupational situation of educators, including entry conditions, licensure, work place conditions, and decision-making processes; and changes in the power distribution and governance structures. Subsequently, he created three models of school restructuring based on each of the dimensions.

The National Governor's Association (1986) similarly developed a model which paralleled Elmore's, with four areas of curriculum and instruction, authority and decision-making, new staff roles, and accountability systems.

Murphy (1991) formulated the major components of restructuring as work redesign defined as changes in roles and relationships, in organization and governance structures, and the core technology of schools, i.e., the educational processes. Lieberman and Miller (1990) conceptualized restructuring as "five building blocks" (p. 761). These included a re-thinking of curriculum and instruction, school structures and roles, a focus on teacher leadership in school governance and decision-making, the formation of school alliances and networks, and recognition of the increased participation of parents and community.

Sizer's (1984) Coalition for Essential Schools, one of the major ongoing restructuring efforts, was based on nine components. These included an academic focus, an emphasis on quality, the use of universal goals, the personalization of learning, an understanding of the student as worker, and the required demonstration
of student competencies. The final three components were staff attitudes, staff issues, and budget. Schlechty (1990) defined restructuring as occurring when "rules, roles, and relationships are altered in whatever way seems appropriate to assuring that the vision can be pursued in progressively more effective ways" (p. 146).

Based on these definitions, Ann Lewis (1989) derived the commonalities and stated the following basic components of restructuring. The process must create a central guiding vision, involve changes in curriculum and school organization, decentralize authority, contain both a student and teacher-centered focus, apply to all schools, and specify high expectations for both teachers and students.

With acknowledgment of minor variations in definitions of restructuring by various researchers, there were common dimensions. The common dimensions teased out included systematic changes in curriculum and instruction, changes in roles and relationships, changes in workplace conditions and organization and governance structures for the purpose of improved learning outcomes (Conley, 1991b; Elmore, 1990; Lieberman & Miller, 1990; Murphy, 1991; Schlechty, 1990). Conley (1991b) provided further clarification with a concise definition of restructuring: "Activities that change the fundamental assumptions, positions and relationships both within the organization and outside world that lead to improved student learning outcomes" (p. 15).

Within these dimensions of restructuring there were activities typically identified with restructuring initiatives. These typically included vision-building with discussions of beliefs of all stakeholders, goal setting, expanded decision-making, linkages with community, extended parental involvement and extensive staff development (Conley, 1991b).
From the definitions of restructuring it was clear that public school restructuring was complex and multidimensional with variables that directly and indirectly influenced student learning (Conley, 1991b). As conceptualized by Conley, curriculum, instruction, and assessment were the three variables that directly focused on learning. The learning environment, time, technology, and school-community relationships were the enabling variables that enhanced the learning process. Supporting variables were remote from the classroom setting such as personnel, working relationships, governance, and teacher leadership. Though these variables were highly interconnected, restructuring schools were not typically addressing all variables simultaneously (Conley, 1991b).

Lieberman, Darling-Hammond, and Zuckerman (1991) conceptualized the variables of restructuring as process and content variables. Process variables included those processes occurring in schools, that is, how teachers worked together; and how teachers, principals, and parents worked together. Examples of content results variables were “what provided the focus and justification for their work,” such as achievement and student motivation (Lieberman, Darling-Hammond, et al., 1991, p. 33). It was important to study process as well as content results variables because process variables influenced the essential content results variables. According to this definition, collaboration was one process variable, and student achievement was one content results variable.

Themes of Restructuring

School restructuring had a number of themes and activities (Conley, 1991b; Fullan, 1991; Murphy, 1991; Schlechty, 1990). One of the key themes of school restructuring was a redefinition of the roles and responsibilities of parents, teachers,
principals, and students, and the modified relationships among these groups (Barth, 1990; Elmore, 1990; Lieberman & Miller, 1990). One aspect of role change was the movement of a school from the traditional isolated culture to a more collaborative one in which teachers worked together with principals to improve teaching practice. The traditional teacher role in the work place was described not as one in which teacher members in a profession learned from one another, but one in which isolation from adults was the norm (Lieberman & Miller, 1984; Lortie, 1975; Rosenholtz, 1989). In faculty discussions, teachers most often discussed “student discipline and parental complaints” (p. 60), rather than more important goals or objectives, teaching approaches, curriculum policies, subject matter knowledge, or anything else related to the teacher’s instructional efforts (Bacharach, Bauer, & Shedd, 1986).

The need for movement from a traditional work culture stemmed from research on the negative effects of isolation. Researchers have concluded that the cost of teachers working continuously with children, in isolation from peers, is high (Little, 1982; Rosenholtz, 1984). Other negative effects included lack of opportunity for professional growth and continuous learning (Ashton & Webb, 1986), untapped human resource development (Lieberman et al., 1988), and lack of development of commitment and sense of community (Sarason, 1982). The effects also included the absence of norms supporting peer observation. The lack of peer observation as characterized by minimal or no time scheduled for inquiry or discussion (Fullan, 1991; Goodlad, 1984), prohibited the development of a shared culture for academic problem-solving (Goodlad, 1984; Lortie, 1975). The negative effects of teacher isolation also included the following: weak teacher commitment to the profession and attitude toward change (Lieberman et al., 1988); the lack of development of self-
efficacy (Ashton-Webb, 1986) and of teacher ownership of school vision, mission, and goals (Rosenholtz & Kyle, 1984); and lack of collective consensus.

The short-term negative effects also influenced a number of long-term effects that were detrimental to the teaching profession, and had more far-reaching consequences related to instruction. The negative effects, especially the isolation, played a decisive role in the decision of some beginning teachers to leave the profession (Gray & Gray, 1985). The isolated settings compelled teachers to be self-reliant rather than collaborative.

In a school where the goals were ambiguous and there was no common sense of purpose, teachers felt more uncertain about their instructional practices, and were less willing to share their insecurities. Rosenholtz (1989) discussed the important reciprocal relationship between teachers' certainty about their technical culture and instructional practices and their collaborative exchanges (p. 43). When there was no common discussion about instruction, teachers tended to commiserate, and discussed noninstructional duties and behavioral problem students. As well, they became turf-minded, unable or unwilling to solve classroom problems (Rosenholtz, 1989). In contrast, the sharing of teaching goals among teachers made them feel part of a teaching community which caused them to seek and offer help more readily (Rosenholtz, 1989).

A combination of structural and normative factors isolated teachers from each other and prevented the sharing of skills, knowledge and information, and resources they acquired through daily decision-making (Elmore, 1990; Rosenholtz & Kyle, 1984; Shedd & Bacharach, 1991; Smith & Scott, 1990). Finally, the isolation of teachers contributed to resistance of new ideas and reforms (Smith & Scott, 1989).
Throughout the years there was insufficient attention to the important relationships of adults in the school (Barth, 1990). The key to improving schools from within was attributed to improving the interactions among teachers and principals (Barth, 1990). The more positive rationale for serious examination of the collaboration of school staffs was the instructional effectiveness that resulted when teachers planned and participated collegially in school improvement (Barth, 1990; Darling-Hammond, Griffin, & Wise, 1992; Lieberman & Miller, 1991; Little, 1982; Rosenholtz, 1989).

Additionally, from investigations of effects of isolation, a number of studies attempted to examine schools with contrasts in amounts of teacher interaction in order to investigate the strength of collaboration. Rosenholtz (1989) classified 78 Tennessee schools with 65 described as “learning impoverished” and 13 as “learning enriched.” The learning impoverished schools exhibited the following characteristics: isolation among teachers, lack of teacher learning, teacher uncertainties in curriculum and instruction, and weak commitment to the individual school and teaching profession. In contrast, the learning enriched schools were described as having these characteristics: consensus on school goals, faculty collaboration, and ingenuity to create new programs and to solve problems.

In another study, Little’s (1982) focused ethnography studied the organizational characteristics conducive to continued learning. Little studied four relatively successful and two relatively unsuccessful schools. The successful schools were staffed by teachers who valued and demonstrated norms of collegiality and experimentation. These teachers engaged in professional interactions such as discussions of instruction, shared planning and peer observation activities.
Research has consistently shown that positive school effects result from collaboration. Leaders in successful schools cited collaboration as an element that made the school successful or effective. These professional communities shared their expertise, and the staff utilized each other for discussion related to the implementation of practice (Little, 1982; Louis, Marks, & Kruse, 1996). Through collaboration, teachers created shared understandings from complex data and increased their sense of mutual support for the collective responsibility for effective instruction (Lieberman & Miller, 1991; Louis et al., 1996).

Collaboration and School Restructuring

The research on school effectiveness and effective staff development practice emphasized the culture and organizational practice of schools as key to improving the school (Bacharach et al., 1986; Barth, 1990; Elmore, 1990; Fullan, 1991; Joyce & Showers, 1988; Smith & Scott, 1990). Increased employee participation positively enhanced employee motivation, involvement in the organization and support of changes (Bacharach & Conley, 1989).

School restructuring initiatives typically included systematic changes in curriculum, instruction, roles, relationships and workplace conditions, and changes in organization and governance structures (Elmore, 1991; Lieberman & Miller, 1990; Murphy, 1991). In order to accomplish these types of changes the collaboration of school stakeholders was an essential, inherent part of the process (Barth, 1990; Conley, 1991a).

New and emerging roles of teachers, parents, students, and administrators were reported in the early lessons and initial reports of restructuring schools (Conley, 1991a; Lieberman, Darling-Hammond, et al., 1991). One aspect of role change...
frequently cited in the initial reports was an increase in the collaborative behaviors of teachers and principals as they were afforded opportunity, structures, time and support for interaction and decision-making at the school site (Murphy & Hallinger, 1993).

Collaboration was more than simple congeniality or cooperation among a school staff (Barth, 1990). Collaboration was generally defined as teachers, parents, and principals working together and sharing decision-making authority on instructional decisions (Smith & Scott, 1990). In collaborative schools, the natural give and take of professionals occasionally resulted in conflict, disagreement and discord. These situations, however, were worked out for the good of students (Smith & Scott, 1990). The benefits of a collaborative work culture included the following: development of teacher leaders, teacher ownership and greater likelihood of implementation of change initiatives, greater opportunity for collegial reflection on instructional practices and curriculum, and expanded opportunity for feedback from peers without an evaluative purpose (Barth, 1990; Smith & Scott, 1990).

Smith and Scott Collaborative Model

Smith and Scott (1990) stated it was easier to describe than define the collaborative school. Although formal programs can encourage collaboration, it cannot be imposed upon a staff. Collaboration depended on professional educators’ voluntary efforts to improve their schools and their own skills through teamwork. According to Smith and Scott, the elements of collaboration included the following beliefs: (a) the belief that the quality of education was highly dependent on what happens at the school site, (b) the belief that instruction was governed by norms of collegiality and continuous improvement, (c) the belief that teachers were responsible
for the instructional process and its outcomes, (d) the belief that teachers implemented practices and structures that enabled school staffs to work together for school improvement, and (e) the belief that teachers were actively involved in school decision-making.

The overriding goal of the collaborative school was educational improvement (Smith & Scott, 1990). The primary rationale for collaboration was instructional effectiveness and professional growth that resulted when teachers participated collegially. The roles of teachers in the collaborative school were expanded to include leadership responsibilities, and increased control over the basic elements of instructional practice and the supporting variables of schooling, such as budgets and personnel (Murphy & Hallinger, 1993).

New research also tied collegiality and collaboration to other positive school outcomes. Ongoing research into school culture, change, and improvement found that success was more likely when teachers were collegial and worked collaboratively on improvement activities (Peterson & Brietzke, 1994). When teachers and administrators worked together, change efforts were more easily implemented and teachers experienced increased commitment, energy, and motivation. The degree of change experienced was related to the extent of teacher interaction with each other (Fullan, 1991).

Other positive results of collaborative schools were more complex problem-solving and sharing of craft knowledge, greater risk-taking and experimentation, and a richer technical language shared by educators in the school which transmitted professional knowledge expediently. Increased job satisfaction, identification with the school, increased continuous and comprehensive attempts to improve the school when combined with school-level improvement efforts, were also positive results.
(Fullan & Hargreaves, 1991; Peterson & Brietzke, 1994). These collaborative settings also supported practices that fostered success. Practices such as teacher sharing of uncertainties and discussing new ideas were instituted for teachers to receive support and provide help. A strong sense of common commitment was developed and the teachers received respect and consideration for their efforts.

Collaboration and Student Achievement

Collaborative schools had more productive work environments, and students demonstrated improved achievement (Smith & Scott, 1990). In several studies the collaboration of teachers, parents, and the principal was shown to have an effect on student achievement. For example, in collaborative school environments, The National Educational Longitudinal Study of 1988 (Lee & Smith, 1995a) database demonstrated the positive results of teacher responsibility for student learning. Lee and Smith (1995a) also reported a strong positive link between teachers' collective responsibility for student learning and student outcomes. Specifically, in those high schools where the collective responsibility was high, students demonstrated large gains in engagement and in student achievement, particularly for the subjects of math, reading, history, and science.

The Indiana 2000 schools proposed collaboration as a means to accomplishing goals. Each cited the interstaff discussions needed to further refine and adjust their goals on an ongoing basis (Indiana Department of Education, 1995).

Introduction of Collaboration in Schools

In collaborative cultures teachers developed a collective confidence and recognized the accomplishments of pupils. They were able to respond to changes
critically, selecting and adapting those elements that aided improvement in their own work context and rejecting those that did not (Fullan & Hargreaves, 1991). Many teachers were supported by the principal as teacher leaders, since leadership was widespread among the faculty (Fullan & Hargreaves, 1991).

In the collaborative school the role changes of teacher and principal were significant. These role changes involved sharing of leadership and decision-making. Little (1988) stated that the de-isolation of teachers should be integrated into the daily work routine and associated with the school improvement effort for effective change to occur.

Collaboration and Transfer of Teaching Practices

Change is endemic to the restructuring process. There are a number of factors that increased the likelihood of successful change efforts (Fullan, 1991). Change efforts were more easily implemented when teachers and administrators worked together (Moore-Johnson, 1990b). Specifically, principals promoted teacher leadership and encouraged teachers to work together (Peterson & Brietzke, 1994).

Another key aspect of collaborative cultures was the teacher’s sense of efficacy, that is, the extent to which a teacher believed in the capacity to impact student learning (Peterson & Brietzke, 1994). Teachers with a high sense of efficacy believed that their efforts and expertise had more impact on student learning than such external variables as parental support and student motivation (Peterson & Brietzke, 1994). Structural changes, such as site-based management, increased levels of teacher involvement, but did not necessarily change teaching strategies utilized in the classroom (Murphy & Hallinger, 1993).
Teachers with a high sense of efficacy were more likely to adopt new classroom behaviors (Joyce, 1990; Rosenholtz, 1989). Most teachers used a narrow range of practices and expanded their repertoire only when training was specifically designed and provided (Sirotnik, 1983).

Teachers were more likely to change their teaching behaviors when the following factors were present for teachers to: (a) learn by doing, (b) link prior knowledge to new information, (c) learn by reflecting and solving problems, and (d) learn in a supportive environment (Joyce, 1990; Murphy & Hallinger, 1993). This information was vital to the school restructuring movement.

Teacher-Student Engagement

The goals of restructuring schools resulted from the collaboration of school stakeholders, as opposed to being imposed by an external agency or administrative authority. (Barth, 1990; Elmore, 1990; Murphy & Hallinger, 1993). The goals were derived from a central guiding vision (Conley, 1991b; Elmore, 1990).

Each of the Indiana 2000 schools identified for this research specified a common goal containing movement toward including students as actively engaged participants in the learning process. (Indiana Department of Education, 1991). The five Indiana 2000 schools proposed collaboration as the tool that was to be utilized for achieving the changes in instructional methods in the classroom.

An additional key theme in school restructuring was the shift from the traditional teacher-centered classroom to the student-centered classroom (Murphy & Hallinger, 1993). The traditional classroom typically had students in a relatively passive role with the teacher in a directive role (Murphy & Hallinger, 1993). The student-centered classroom, however, reflected students as actively engaged in the
educational process and responsible for their learning (Baron, 1998). The teacher role
described in the student-centered classroom was facilitative (Gideonse, 1990).

The rationale for examining teacher-student engagement was based on the
negative results reported from teacher-directed instruction (Goodlad, 1984; Moses &
Whitaker, 1994), and the positive benefits attributed to student-centered instruction
(Darling-Hammond et al., 1995; Lambert & McCombs, 1998; Rallis, 1995). The
results of examining teacher-student engagement practices were that higher student
participation, ownership, and responsibility for the learning process and outcomes
resulted in higher student achievement (Darling-Hammond et al., 1995; McCombs &
Whisler, 1997; Newmann & Wehlage, 1995). Other outcomes included greater
student intrinsic motivation, greater sense of student control and confidence and the
development of student capacity to self-assess (McCombs, 1998). Additional benefits
were increased student interest, energy, creativity, and risk-taking, as well as higher

The research base for teacher-student engagement has been derived from
constructivist principles. Twelve principles were highlighted, centered around the
conception that learning occurred as the individual participated in the construction of
meaning (Brooks & Brooks, 1993; McCombs, 1998). Engagement was one element
of constructivism or a constructivist philosophy in cognitive psychology. According
to this view, students learned best when they were actively engaged. Students were
not seen as passive recipients of knowledge but rather as thinking individuals who
brought to each new situation prior knowledge, beliefs, and dispositions.

The research in motivation and affect has documented that personal
involvement, intrinsic motivation, and commitment contributed to greater learning
(Lambert & McCombs, 1998). Students learned best when they exercised choice,
control, and personal responsibility (Alexander & Murphy, 1998; Brooks & Brooks, 1993).

These studies of constructivism and motivation led to current reform movements with their focus on attention to the needs of the whole student, on achievement of higher academic standards, and to provision of integrative, relevant curricula and learning assessments (Lambert & McCombs, 1998). Shared responsibility for learning which occurred between teachers and students was a cornerstone of learner-centered practices (Elmore, 1988). The most important element was a change in the traditional or conventional teacher-student relationship. This new relationship was more collaborative with students having more voice, including an underlying trust and respect often absent in traditional teacher-student relationships (Sirotnik, 1987). Students were encouraged to take responsibility for asking questions and guiding their own learning. As a result of increased student participation, there was higher student motivation and achievement (Ammon & Black, 1998).

In terms of teacher to teacher relationships, professional communities fostered the sharing of expertise as faculty members called on each other to discuss the development of skills related to the implementation of practice (Little, 1990). Collaborative work increased teachers' sense of affiliation with each other and with the school, as well as their sense of mutual support and responsibility for effective instruction (Moore-Johnson, 1990a). The collaborative work created shared understanding and meaning from complex data (Louis, 1992; Moore-Johnson, 1990a).

In the area of parent-teacher relationships, parents assumed an increasingly responsible role in the school. This role was not limited to fund raising and other
traditional parent involvement activities. The new role included decision-making in the areas of curriculum and instruction (Murphy & Hallinger, 1993). Other roles with administrative direction included the following: active outreach to community agencies, the recruiting and training of parent volunteers, surveying to learn about the needs of parents and to obtain feedback, and assisting in the development of a school climate conducive to parent involvement. Additional role changes involved parents in the development of performance assessments, and parental participation in school governance and inservice opportunities, through available grant opportunities to support parent activities and education at the school site (Moses & Whitaker, 1994). These activities generally represented a blurring of the boundaries between the home and school, the community and school, and school professionals and lay constituents (Murphy & Hallinger, 1993).

Parent involvement contributed most to a school when it reflected consensus between parents and staff over the school's mission. (Newmann & Wehlage, 1995). If there was general agreement between parents and staff regarding the school's mission, then parent involvement provided assistance and reinforcement of the collective responsibility for the students' success. Augmenting the parental role in these ways increased the parents' commitment to the educational program. Epstein and Dauber (1988) stressed that those schools involved in the promotion of parent involvement were more likely to be involved with other types of parent activities, and noted that "multiple forms of involvement have a mutually reinforcing, synergistic positive impact" (p. 240).

Schools reaching the goal of high achievement for all students created a new culture that reflected continuous improvement and learning as an ongoing goal. It was a goal for not only for the students, but the teachers, parents, administrators, and
community members as well (Barth, 1990; Lambert & McCombs, 1998; Smith & Scott, 1990). The culture was developed in a process which included a shared common purpose or goal, a commitment to continuous improvement and lifelong learning, and a shared sense of responsibility for reaching this goal among all participants of the system. At the core were shared norms and values with a collective focus on learners and learning, with the development of the culture emerging in a process involving reflective dialogue and collaboration (Ammon & Black, 1998; Barth, 1990; Lieberman, 1988).

Equally important in the development and maintenance of a culture committed to continuous learning and change was ongoing attention to the organizational, personal and technical supports needed. From the perspective of the organization there must be planned time to meet and discuss, physical proximity for team collaboration, communication structures, and shared decision-making processes (Elmore, 1990; Kruse, Seashore-Louis, & Byrk, 1994).

In research by the Center for School Restructuring, Kruse et al. (1994) found that attention to the personal domain was more critical to the development of a sense of professional community than structural conditions. This finding contributed to the argument that the structural elements of restructuring, such as site-based management, have received too much emphasis in reform proposals, “while the need to improve the culture, climate and interpersonal relationships in schools has received too little attention” (Kruse et. al, 1994, p. 6).

The research, with a focus on students and their needs, demonstrated that more students were successful and satisfied in school. Current innovations were more effective in improving achievement, learning, and motivation for all students (Lambert & McCombs, 1998).
Conclusion

Reform and restructuring consumed more time in secondary schools, because of the needed dramatic changes in the professional community and the transition from departments and specializations toward broader, school-wide goals (Seashore-Louis & Miles, 1990). High schools were less likely than elementary or middle grade schools to focus school-wide professional development on curriculum and instruction. In elementary schools, goal consensus was already a characteristic of many schools (Louis et al., 1996).

Changing school structure improved professional community. These new conditions included the provision of time for teacher decision-making. There was consistency with a previous survey of teachers in restructuring schools. These schools demonstrated collaborative opportunities and teacher empowerment as significant factors associated with teachers’ quality of work life (Marks & Seashore-Louis, 1997).

This study suggested that professional community may be something worth striving for at all levels, even if it means questioning features of high schools such as departmental structure, impersonal relationships between teachers and students, larger school sizes, and a wider variety of program offerings. Recent analyses of National Educational Longitudinal Study of 1988 (NELS: 88) (Lee & Smith, 1995a) data also suggested simplification of high schools and their offerings and size and creation of more community interest within the high schools. These factors enhanced both disadvantaged students’ learning as well as teachers’ professional community (Lee & Smith, 1995a; Newmann & Wehlage, 1995).
In general, it was more difficult to “reculture” schools than to restructure (Louis et al., 1996). School culture was a factor that school staff and leadership could plan for to effect change as it was a significant factor related to student motivation, achievement, and personal investment (Maehr, Midgley, & Urdan, 1992). It was a malleable factor, although more difficult to plan for and accomplish than structural types of conditions (Maehr et al., 1992). For example, it was much easier to change and measure structural conditions such as the reduction of class sizes, as compared to the cultural condition of enhancement of student motivation and learning.

Restructuring reform takes considerable time, 5 to 10 years or more, due to its comprehensiveness (Fullan 1991). The Indiana 2000 schools, with their 5-year plans, included a goal of becoming learner-centered as demonstrated by increased student engagement practices. This goal involved considerable change in teaching practices. The collaboration of teachers, principal, parents, and students was designed as a key process to assist them in achievement of this goal. The research on school collaboration and teacher-student engagement, and teacher changes in teaching practice were used to derive the following hypothesis: It is hypothesized that those teachers who report greater indications of a collaborative school work culture (collaboration) will report more instances of teacher-student engagement (engagement) in their classrooms.

For this study, collaboration was defined to include practices among three dimensions: (1) teacher to teacher collegial interactions, (2) administrator sharing of authority with teachers, and (3) teacher and parent interactions. The variable of teacher-student engagement was defined to include classroom practices which
specifically reflected students as active participants with choices in curriculum, instruction, or assessment.
CHAPTER III

RESEARCH DESIGN

The research design is a correlational design using a written survey instrument. The purpose of the survey design is to examine the relationship between the degree to which teachers perceive a collaborative work culture (collaboration) in their schools, and teacher use of student engagement methods (teacher-student engagement) in their classrooms. The primary factors contributing to or deterring from school collaboration and teacher-student engagement will be described and highlighted. The following sections describe the participants, sampling design, rationales, instrument, and procedures.

Participants

Indiana had six restructured schools designated as Indiana 2000 schools in 1990: three high schools, one middle school, and two elementary schools. These schools comprised the initial selection of restructuring school designations granted by the Indiana Department of Education.

Five of the six schools agreed to participate in this study. The five schools were located in the following regions of the state: one high school in the northern region, one elementary and one high school in the mid-region, one middle school in the southern region, and one elementary in the southeastern region. The school districts, located in small to mid-size cities, were serving primarily rural or suburban populations. The populations in these districts were of varying ethnic profiles and
socioeconomic levels ranging from low to upper middle class. Each of the districts was considered small with the number of schools within each district ranging from four in number to nineteen. (The specific demographics for each participating school are included in Appendix B).

For this study, teachers were selected for participation as they were closest to restructuring changes for the two variables of collaboration and teacher-student engagement. All certified elementary, middle, and secondary teachers at each of the five schools were invited to participate in the completion of the questionnaire on school collaboration and teacher-student engagement methods. Certified teachers included those who instructed children in one or more academic areas including special educators (self-contained and resource) and support staff teachers. Administrative and noncertified personnel were not included in the study; that is, they did not complete the questionnaire. However, school principals provided background information through an interview format for each of the restructuring sites. (Appendix C). The questionnaire (Appendix D) was administered to teacher volunteers at the restructuring sites.

Instrumentation

The questionnaire instrument was constructed from literature reviews of restructuring (Rosenholtz, 1989; Smith & Scott, 1990), collaborative practices, student-centered instructional practices, constructivist principles, and common elements derived from the Indiana 2000 proposals of the five schools. For the factors enhancing and detracting from collaboration and teacher-student engagement, the checklists of items were derived from research information regarding collaboration and engagement (student-centered instruction).
The participants completed a three-part questionnaire. (Appendix D). Part I consisted of 50 items with a Likert scale response format. Part II items required identification of factors and trainings that enhanced and detracted from school collaboration and teacher-student engagement. For the trainings section, participants were also allowed to write in titles of inservices, courses, etc. Part III included demographic questions such as gender, years of employment, years at the restructuring site, and educational attainment.

Item Analysis

The procedures of preliminary testing and the pilot were completed to increase the validity of the instrument. The procedures for item analysis of the questionnaire items for collaboration and student engagement were organized and implemented according to the following steps:

1. Educational methods classes at Indiana University at South Bend were identified and students within those classes were invited to participate.

2. Random sampling procedures were used to provide participants an index card for each of the two role options, maintaining an equivalent number of responses for each role.

For each of the variables of collaboration and teacher-student engagement, the students were given information on index cards which represented roles for a teacher who worked in a collaborative or noncollaborative school, and roles for a teacher who used engagement or nonengagement practices (Figures 1 and 2).

The investigator gave a brief verbal description of the roles for the variables and administered the questionnaire. Students were directed to respond to the questionnaire utilizing the assigned framework of the role for each of the variables.
Collaboration: You are a teacher who works in a school where

- there is an emphasis on teamwork, active participation and communication with parents, teachers, and the principal
- teachers rely on colleagues and the principal to improve their teaching practice and the school as a whole
- teachers and the principal share leadership, authority, and accountability.

Noncollaboration: You are a teacher who works in a school where

- teachers work independently, with minimal interaction with colleagues
- there is superficial or nonexistent parental involvement or communications
- there is no collegial interaction for the improvement of instructional effectiveness
- teachers depend on the principal for professional growth
- control and authority rest with the principal.

Figure 1. Description of Role in a Collaborative and Noncollaborative School.

A data analysis procedure of each item encompassed the following steps:

1. Each item in the collaboration section was coded as scoring in the direction of collaborative or noncollaborative.
2. Each item in the teacher-student engagement section was coded as scoring in the direction of engagement or nonengagement.
3. The frequency of responses for each response category was tallied.
**Teacher-student engagement:** You are a teacher who empowers students through

- involving them in classroom decisions and the educational process
- providing them with choices or structuring opportunities for them to make choices in curriculum, instruction, and assessment
- sharing the responsibility for their progress.

**Nonengagement:** You are a teacher who

- is responsible for classroom decisions regarding curriculum, instruction and assessment of student growth
- gives students no opportunities to make choices or to be active, responsible, participants in the educational process.

---

**Figure 2. Description of Role of Teacher-Student Engagement and Nonengagement.**

4. For each item, the index of discrimination was computed to determine its discriminating power. The criterion for item retention was 0.80 or above. Items with a discrimination index below 0.80 were revised.

5. For each item, chi-square distributions were completed for a comparison of the observed versus the expected frequencies.

Items were revised for an additional questionnaire administration to be given to 39 practicing teachers. An identical data analysis procedure with item discriminating power and chi-square distributions was completed. Items with a discriminating index of 0.80 or above were retained. Items with a discrimination index below 0.80 were revised for the pilot study.
Pilot Study

A pilot test of the survey was completed at two restructuring schools, one elementary and one middle school, which were not involved in the study. Restructuring schools were selected since teacher perceptions and attitudes would be similar to teachers involved in the study. Teachers participants numbered 38 in the pilot.

The purpose of the pilot was to obtain feedback information on questionnaire items, and to be a miniaturized walk-through of questionnaire administration and data processing procedures. Four primary changes were made to the instrument subsequent to the pilot.

1. Final revisions were made to Items 1–50 of the instrument.

2. Based upon teacher indication of potential responses for inservice trainings, courses and topics were rearranged in a checklist format (Items 59 and 60) to reduce the administration time for future teacher participants.

3. A third change as a result of the pilot was the elimination of the column labeled “Occasionally” as a response choice, as it was used in excess of expected frequencies.

4. As part of a fourth change, a category was created for missing data, and a category in the response format was created for nonapplicable items.

Data Analysis

Scores for the collaboration and engagement variables were determined. Prongs of the collaboration variable were determined for the three-part definition of collaboration: (1) teacher to teacher collaboration, (2) principal and teacher
collaboration, and (3) teacher and parent collaboration. Pearson $r$ correlations were completed for each teacher’s school collaboration score and each teacher’s engagement score. Scattergrams were completed for these Pearson $r$ correlations. (Prong scores could be utilized in some future data analysis.)

Procedures—Consent

At the district level six superintendents provided written permission for the study. The Indiana Department of Education endorsed the study and arranged an initial meeting with representatives from each of the school sites. Building principals at each of the sites were contacted by letter and follow-up phone calls. The letter content included the purpose of the study, the nature of the questionnaire instrument, requirements for completion, and the role of building principal for assistance, and a date for administration. One building principal declined participation in the study 2 months prior to survey administration.

Survey

Certified teachers were invited to participate through a personalized written notice attached to a consent form. Principals discussed preliminary involvement in the study at a staff meeting, and distributed and collected the consent forms a few weeks prior to questionnaire administration.

The investigator administered the questionnaire at a faculty meeting for those participants with signed consent forms. Two hundred twenty-three teachers completed the survey, with school breakdowns previously indicated in Table 1.
Table 1
Number of Participants Completing Survey

<table>
<thead>
<tr>
<th>School</th>
<th># Completing Survey</th>
<th>Total Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>42</td>
<td>49</td>
<td>86%</td>
</tr>
<tr>
<td>B</td>
<td>34</td>
<td>41</td>
<td>85%</td>
</tr>
<tr>
<td>C</td>
<td>24</td>
<td>36</td>
<td>66%</td>
</tr>
<tr>
<td>D</td>
<td>72</td>
<td>101</td>
<td>72%</td>
</tr>
<tr>
<td>E</td>
<td>50</td>
<td>50</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>222</strong></td>
<td><strong>277</strong></td>
<td><strong>80%</strong></td>
</tr>
</tbody>
</table>

Protection for Subjects and Confidentiality

There were no identified risks to subjects. The consent forms addressed potential risks of confidentiality, anonymity, and privacy issues. The following protections were in place for the investigation: Participation was voluntary. Participants with signed consents were able to decline participation at any time. Schools were coded and referenced by the letters “A” through “E,” not by school names nor by numerical system. Response forms of participants were collected by the student investigator and were assigned numbers randomly after the group administration.

Survey administration was anonymous in a large group faculty meeting. The questionnaire was administered after some preliminary comments about the purpose of the research and about ways the data would be used and disseminated.

Comments of appreciation for teacher participation and significance of this research for each individual school site were given prior to each school’s
questionnaire administration. A written "Executive Summary" was forwarded to each participating school site after the completion of the dissertation.
CHAPTER IV

ANALYSIS OF DATA

Introduction

The purposes of this study were to examine the relationship between collaboration and teacher-student engagement, and to identify the factors that have contributed to the achievement or detriment of collaboration and teacher-student engagement. The impact of restructuring was delineated through two research questions designed (1) to assess the perceived school collaboration and teacher-student engagement, and (2) to summarize the factors enhancing and detracting from collaboration and teacher-student engagement practices.

The frequencies and percentages for each item of the questionnaire were calculated. Responses were analyzed according to the study objectives. The results obtained from the analysis of the data are presented in this chapter. Included are descriptive statistics, other findings, and summary of the results.

Descriptive Statistics and Findings

This study was conducted with teachers from five restructuring schools in Indiana. All of the teachers at each school site were invited to participate in the study by completing the 60-item questionnaire (Appendix D). Principals were excluded from the questionnaire portion of the study. However, each principal provided
background information for his school. This background information is summarized in Appendix C.

The teacher questionnaire was organized into categories of collaboration (Items 1–35) and student engagement practices (Items 36–50), four demographic items, four items regarding enhancers and detractors of collaboration and student engagement, and two items regarding specific inservice attendance for collaboration and student engagement. Responses were analyzed according to the two study objectives. Additional information on inservices was included.

**Demographic Items**

Two hundred twenty-two teachers completed the survey out of a possible 277 teachers (Table 1). Fifty-five teachers did not complete the questionnaire either by choice, coaching responsibility, or absenteeism.

The demographic items of the questionnaire were organized as follows: gender (Appendix E), years of teaching as a profession (Appendix F), years at the restructuring site (Appendix G), and level of educational attainment (Appendix H). Participants included 131 females (59%) and 77 males (35%). (Fourteen persons completed the survey, but did not indicate gender.)

Of the 222 surveys, 199 were utilized in the data analysis. Twenty-three surveys were not utilized because of incomplete sections on the engagement variable, thereby not providing data on both variables. This was a purposive sample rather than a random sampling of teachers. Teachers absent or unable to attend the staff meetings were provided with surveys from the principal to mail back to the examiner, and these responses were tabulated in the total return reported above. On the number of completed surveys, five were not used at School A, six at School B, two at School C,
six at School D, and four at School E. Anonymity was protected for these individuals.

Fourteen persons (6%) who completed the survey did not indicate gender. School A was composed of 92% female, School B with 87% female, School C with 67% female, School D with 68% female, and School E with 43% female. Gender information is located in Appendix E. This result indicated a high percentage of females in Schools A and B, the elementary sites in the study. It has been reported by the National Center for Educational Statistics that there were 68.6% female teachers in the United States in 1986 (Sikula, Buttery, & Guyton, 1996).

The total number of years in the teaching profession as shown in Appendix F was represented as follows: (N = 36) 16% in one to 5-year category; (N = 30) 14% for 6- to 10-year category; (N = 19) 9% for 11- to 15-year category; and (N = 131) 59% for 16 or more year category. School breakdowns are also indicated in Appendix F. (Six persons did not indicate number of years in the teaching profession, which represented 2.7% of the sample.)

The number of years at the restructuring site is indicated in Appendix G, with the majority of teachers, 35%, teaching 16 or more years; 25% at 1 to 5 years; 23% at 6 to 10 years; with 13% at 11 to 15 years, at the restructuring site. Eight respondents (4%) did not complete this question.

The respondents' level of educational attainment (Appendix H) indicated 71% (158 teachers) held master's degrees, 21% (46 teachers) reported bachelor degrees, and 6% (13 teachers) reported educational specialist degrees. There were no respondents having a doctoral degree, and five teachers (2%) did not complete this question. Individual school breakdowns are also shown in Appendix H.
Results

Perceived School Collaboration and Teacher-Student Engagement

What is the relationship between (a) degree to which teachers perceive a collaborative work culture in their school, and (b) teacher use of student engagement in their classrooms at the current time?

Collaboration was a three-pronged definition which represented Items 1–35 on the teacher survey. Questionnaire Items 1–13 represented teacher to teacher collaboration. Items 14–25 represented teacher and principal collaboration. Items 26–35 represented teacher and parent collaboration. Items 36–50 were questions on student engagement practices.

The teacher surveys with an incomplete engagement section, defined by three or more missing items, were not utilized for the analysis of the two variables. These 23 surveys with an incomplete engagement section were eliminated in the statistical analyses. (The persons most likely were guidance counselors or social workers and the engagement items did not apply to them as the items were intended for classroom teachers.) For this study, 199 surveys were utilized in the statistical analysis.

Scatterplots for each school, A through E, are in Appendix I. For School A the correlation coefficient is 0.58, demonstrating a moderate, positive relationship. The $p$ value is 0.00015. For School B, the correlation coefficient is 0.32 demonstrating a low, positive correlation. The $p$ value is 0.09. For School C, the correlation coefficient is 0.41 demonstrating a low, positive correlation. The $p$ value is 0.06. For School D, the correlation coefficient is 0.27, demonstrating little, if any, correlation between variables. The $p$ value is 0.03. For School E, the correlation
coefficient is 0.53 demonstrating a moderate, positive correlation. The \( p \) value is 0.00013.

For School A, for the collaboration variable, 37 teachers completed both parts of the questionnaire resulting in the revised total score of 2333, with a mean of 63.1. For School B, for the collaboration variable, 27 surveys were used and totaled to 1701, with a mean of 63. For School C, 22 surveys totaled 1278 for the collaboration variable, with a mean of 58.1. For School D, 66 surveys totaled 3650 for the collaboration variable, with a mean of 55.3. For School E, 46 surveys totaled 2960 for the collaboration variable, with a mean of 64.3.

The results are summarized as follows. The scatterplots of Schools A, C, and E appeared to be linear and have the strongest, positive relationship (Appendix I). The school with the strongest positive correlation between variables was School A, at 0.58. The next three highest included School E at 0.53, School C at 0.41, and School B at 0.32. The scatterplot of School D, with a correlation of 0.27 appeared less linear, with outlier scores.

Four of the five schools demonstrated a relationship between the variables. Two schools demonstrated a moderate, positive relationship between collaboration and student engagement; two schools demonstrated a low, positive relationship between collaboration and student engagement; and one school demonstrated little, if any, relationship between collaboration and student engagement. The size and interpretation of correlation, \( t \) value, and \( p \) value are shown for the five schools in Table 2.

Collaboration as a variable was further analyzed using a three-pronged definition: (1) collaboration of teacher and teacher; (2) collaboration of teacher and principal, and (3) collaboration of teacher and parent. The descriptive statistics, the
means for the three-prong variable of collaboration and engagement, for all five schools, are shown in Table 3.

Table 2
Correlation Coefficients

<table>
<thead>
<tr>
<th>School</th>
<th>$N$</th>
<th>Size of Correlation</th>
<th>Interpretation</th>
<th>$t$ value</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>37</td>
<td>.58</td>
<td>Moderate positive correlation</td>
<td>4.25</td>
<td>.00015</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
<td>.32</td>
<td>Low positive correlation</td>
<td>1.75</td>
<td>.09236</td>
</tr>
<tr>
<td>C</td>
<td>22</td>
<td>.41</td>
<td>Low positive correlation</td>
<td>1.99</td>
<td>.06050</td>
</tr>
<tr>
<td>D</td>
<td>66</td>
<td>.27</td>
<td>Little, if any, correlation</td>
<td>2.20</td>
<td>.03158</td>
</tr>
<tr>
<td>E</td>
<td>46</td>
<td>.53</td>
<td>Moderate positive correlation</td>
<td>4.17</td>
<td>.00013</td>
</tr>
</tbody>
</table>

Table 3
Descriptive Statistics: Collaboration Prongs and Engagement

<table>
<thead>
<tr>
<th>School</th>
<th>Collaboration</th>
<th>Teacher/Teacher</th>
<th>Teacher/Principal</th>
<th>Teacher/Parent</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22.97</td>
<td>21.40</td>
<td>18.67</td>
<td>25.62</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>22.96</td>
<td>18.85</td>
<td>21.18</td>
<td>29.37</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>14.72</td>
<td>21.81</td>
<td>14.72</td>
<td>26.32</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>25.65</td>
<td>23.26</td>
<td>15.43</td>
<td>26.36</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Teacher/Teacher = Teacher to Teacher collaboration; Teacher/Principal = Teacher and Principal collaboration; Teacher/Parent = Teacher and Parent collaboration.

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Each participant’s raw score on the questionnaire was converted to a mean score for both variables of collaboration and engagement. All of the raw scores for each school were added and converted to a school mean score. The range of scores was also indicated for each school. These scores are reported in Table 4, as well as the aggregate of the five schools. Scatterplots using the means of the variables for collaboration and engagement were completed for each of the five schools and are shown in Appendix I.

Table 4
Descriptive Statistics for Collaboration and Engagement

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Collaboration</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>A</td>
<td>37</td>
<td>63.1</td>
<td>45–77</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
<td>63.0</td>
<td>38–86</td>
</tr>
<tr>
<td>C</td>
<td>22</td>
<td>58.1</td>
<td>40–76</td>
</tr>
<tr>
<td>D</td>
<td>66</td>
<td>55.3</td>
<td>31–92</td>
</tr>
<tr>
<td>E</td>
<td>46</td>
<td>64.3</td>
<td>33–101</td>
</tr>
<tr>
<td>Total</td>
<td>198</td>
<td>60.2</td>
<td></td>
</tr>
</tbody>
</table>

Perceived Enhancers and Detractors of School Collaboration and Teacher-Student Engagement

What were the factors reported by teachers that contributed to or detracted from collaboration (teamwork) and student engagement?
Factors Enhancing Teamwork

In addition to the items on collaboration and engagement, teachers indicated factors that enhanced teamwork at the school site. On the questionnaire instrument, teachers checked three of the most significant factors they perceived as enhancing teamwork at their school site. The factors were listed for them, with additional spaces to write in factors. The number of respondents selecting the various factors is shown in Table 5.

Table 5

Number of Respondents Selecting the Following Factors as the Most Significant Factors Enhancing Teamwork

<table>
<thead>
<tr>
<th>Factors</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Principal leadership</td>
<td>12</td>
<td>6</td>
<td>11</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>2. Principal expectation of teamwork</td>
<td>20</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>3. Teacher leadership opportunities</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>4. Staff development</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>5. Central office leadership/support</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>6. Opportunities for professional dialogue</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>7. Staff commitment to school vision</td>
<td>18</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>8. Staff ownership of the change process</td>
<td>7</td>
<td>14</td>
<td>8</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>9. Principal and teacher sharing of authority</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>10. Site-based decision-making</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>33</td>
<td>7</td>
</tr>
<tr>
<td>11. Staff belief in teamwork</td>
<td>25</td>
<td>22</td>
<td>14</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>12. Outside facilitators</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>13. School internal communications</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>16</td>
</tr>
</tbody>
</table>
From the data in Table 5, the most significant factors five factors enhancing teamwork are summarized in Table 6.

**Table 6**
School Selection of Top Five Factors Enhancing Teamwork

<table>
<thead>
<tr>
<th>School</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11, 2, 7, 4, 8</td>
</tr>
<tr>
<td>B</td>
<td>11, 2, 8, 9, 10</td>
</tr>
<tr>
<td>C</td>
<td>11, 1, 7, 8, 3</td>
</tr>
<tr>
<td>D</td>
<td>10, 3, 4, 9, 8</td>
</tr>
<tr>
<td>E</td>
<td>11, 7, 4, 13, 8</td>
</tr>
</tbody>
</table>

**Factors**
1. Principal leadership
2. Principal expectation of teamwork
3. Teacher leadership opportunities
4. Staff development
5. Central office leadership/support
6. Opportunities for constructive professional dialogue during the school day
7. Staff commitment to school vision
8. Staff ownership of the change process
9. Principal and teacher sharing of authority
10. Site-based decision-making
11. Staff belief in teamwork
12. Outside facilitators
13. School internal communications

School by school identification of the most significant factors enhancing teamwork showed that Factor 8—"Staff ownership of the change process" was selected by all five schools, and Factor 11—"Staff belief in teamwork" was selected...
by four schools. Factors 4 and 7—“Staff development” and “Staff commitment to school vision” were each selected by three schools. Factors 2, 9, and 10—“Principal expectation of teamwork,” “Principal and teacher sharing of authority,” and “Site-based decision making,” were each chosen by two schools. Four factors, 1—“Principal leadership,” 3—“Teacher leadership opportunities,” 6—“Opportunities for constructive professional dialogue during the day,” and 13—“School internal communications,” were each chosen by one of the schools. No schools chose Factor 5 “Central office leadership/support” or Factor 12 “Outside facilitators.”

All five schools selected Factor 8—“Staff ownership of the change process” and Factor 11—“Staff belief in teamwork.” Staff ownership of the change process implied the staff was accepting the change, and was accepting responsibility for the outcomes. It also indicated staff responsibility for the direction and growth of the change process itself. Staff advocation and ownership of the change process was mentioned in the literature on successful school change (Moore-Johnson, 1990b). The distribution of the ownership of school decisions has a major influence on the school’s capacity to improve itself (Barth, 1990).

As stated previously, Factor 11—“Staff belief in teamwork” was selected by four schools. Teachers held a strong opinion that teamwork was a necessary part of the change process. A strong belief would precede any actions on the part of teachers. This belief needed to be in evidence before the teachers would team together to produce results. Fullan (1991) described this relationship, “It may be recalled that at the teacher level the degree of change was strongly related to the extent to which teachers interact with each other and others providing technical help” (p. 131). As Little (1982) reported, teacher collegiality and elements of collaborative
work cultures have been related to the likelihood of the success of change implementation.

A study in 1989 by Nias discussed both the complexity and richness of collaborative work cultures. As teachers solve problems with each other and the principal, research has demonstrated that schools improve significantly (Mitchell, 1990). This conception was succinctly stated by Moore-Johnson (1990b):

A solitary individual or two cannot be expected to redirect a school that is set in its ways; a certain substantial number of able teachers will have to emerge, who, together with the principal, can initiate, sustain and institutionalize new school norms and practices. (p. 143)

And as Lieberman (1988) reported, collaboration does not come automatically. “It must be taught, learned, nurtured and supported until it replaces working privately” (p. 156).

School by school identification of the most significant factors enhancing teamwork among the faculty showed the Factors 4 and 7—“Staff development” and “Staff commitment to the school vision” were selected by three schools. Staff development implied the sources and discussions which assisted with staff interaction for support of necessary changes. Staff development also implied that teachers perceived ongoing and continuing education as necessary to the accomplishment of their goals. “Staff development” and “Commitment to school vision” implied that the majority of staff members believed and supported the changes proposed. This support was demonstrated by staff actions and verbal interactions. Research on the implementation of change processes has demonstrated that “the processes of sustained interaction and staff development are crucial regardless of what the change is concerned with.” (Fullan, 1991, p. 86). Fullan continued to specify characteristics...
of staff development and teamwork as essential to the change processes, and as crucial themes for changes to occur.

School by school identification of the most significant factors enhancing teamwork showed that Factors 2, 9 and 10—"Principal expectation of teamwork," "Principal sharing of authority with teachers," and "Site-based decision-making," were each chosen by two schools. The factor "Principal expectation of teamwork" implied the principal expected and supported teamwork for goal accomplishment. The factor "Principal sharing of authority" indicated that both the principal and teachers held responsibility and accountability for decisions made.

Four factors, 1—"Principal leadership," 3—"Teacher leadership opportunities," 6—"Opportunities for constructive professional dialogue during the day," and 13—"School internal communications," were each chosen by one of the schools. School selection of the factor "Principal leadership" demonstrated the important role of the principal in any change effort.

School selection of the factor "Teacher leadership opportunities" demonstrated that teachers perceived that their leadership in any number of roles enhanced teamwork at the school site. As an example of this principle, the Danforth Foundation funded a project which aimed to create empowered schools and students. In a case study which chronicled a school involved in the empowerment process, teachers began to realize their impact on school decisions, became more interested in the decision making process, and began to identify areas where the school needed improvement. Teachers began to take responsibility for finding solutions to problems. As teacher roles expanded, teachers began to be more involved and teacher leaders helped to create an environment of trust (Murphy & Hallinger, 1993). School selection of the factor "School internal communications" emphasized the importance
of internal staff dialogue and the quality of those communications as enhancing teamwork at their school. The final factor, 6—"Opportunities for constructive professional dialogue during the school day," reiterated the importance of time being allocated for professional interactions. Support of this factor was repeatedly mentioned in the literature on effective school change (Kerr, 1987; Schlechty, 1990).

All five schools selected Factor 8—"Staff ownership of the change process" and Factor 11—"Staff belief in teamwork." Staff ownership of the change process implied the staff was accepting the change, and was accepting responsibility for the outcomes. It also indicated staff responsibility for the direction and growth of the change process itself. Staff advocacy and ownership of the change process was mentioned in the literature on successful school change (Moore-Johnson, 1990b). The distribution of the ownership of school decisions has a major influence on the school’s capacity to improve itself (Barth, 1990).

**Factors Detracting From Teamwork**

In addition to the items on enhancement of teamwork, teachers indicated factors that detracted from teamwork at the school site. On the questionnaire instrument, teachers checked three of the most significant factors they perceived as detracting from teamwork at their school site. The factors were listed for them, with additional spaces to write in factors. The number of respondents selecting the various factors is shown in Table 7.

From the data in Table 7, the most significant five factors detracting from teamwork are summarized in Table 8.

School identification of the most significant factors detracting from teamwork showed that Factor 1—"Insufficient time for interaction" was selected by all five
Table 7

Number of Respondents Selecting the Most Significant Factors Detracting From Teamwork

<table>
<thead>
<tr>
<th>Factors</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1. Insufficient time for interaction</td>
<td>40</td>
</tr>
<tr>
<td>2. Lack of opportunities to promote interaction</td>
<td>27</td>
</tr>
<tr>
<td>3. Insufficient staff development in teamwork skills</td>
<td>11</td>
</tr>
<tr>
<td>4. Lack of principal support</td>
<td>0</td>
</tr>
<tr>
<td>5. Lack of staff belief in teamwork</td>
<td>1</td>
</tr>
<tr>
<td>6. Changes in leadership at the school site</td>
<td>0</td>
</tr>
<tr>
<td>7. Principal difficulty in managing internal conflicts</td>
<td>0</td>
</tr>
<tr>
<td>8. Teacher difficulty in managing internal conflict</td>
<td>4</td>
</tr>
<tr>
<td>9. Changes in leadership at the district level</td>
<td>1</td>
</tr>
<tr>
<td>10. Lack of teacher teamwork skills</td>
<td>6</td>
</tr>
<tr>
<td>11. Changes in teaching staff</td>
<td>5</td>
</tr>
<tr>
<td>12. Inadequate development/support of teacher leadership</td>
<td>3</td>
</tr>
<tr>
<td>13. Partial staff involvement in restructuring initiative</td>
<td>14</td>
</tr>
</tbody>
</table>

schools, and Factors 2 and 13—"Lack of structured opportunities to promote interaction" and "Partial staff involvement in the restructuring initiative" were chosen by four schools. Factors 5 and 7—"Lack of staff belief in teamwork" and "Principal difficulty in managing internal conflicts" were each chosen by three schools. Factors 10 and 3—"Lack of teacher teamwork skills" and "Insufficient staff development in
Table 8

School Selection of Top Five Factors Detracting From Teamwork

<table>
<thead>
<tr>
<th>School</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1, 2, 13, 10, 11</td>
</tr>
<tr>
<td>B</td>
<td>1, 2, 13, 11, (5, 7, 10 tie)</td>
</tr>
<tr>
<td>C</td>
<td>1, 6, 2, 9, 5</td>
</tr>
<tr>
<td>D</td>
<td>1, 5, 13, 7, 3</td>
</tr>
<tr>
<td>E</td>
<td>1, 2, 13, 7, 3</td>
</tr>
</tbody>
</table>

Factors

1. Insufficient time for interaction
2. Lack of structured opportunities to promote interaction
3. Insufficient staff development in group dynamics/teamwork skills
4. Lack of principal support
5. Lack of staff belief in teamwork
6. Changes in leadership at the school site
7. Principal difficulty in managing internal conflicts
8. Teacher difficulty in managing internal conflict
9. Changes in leadership at the district level
10. Lack of teacher teamwork skills
11. Changes in teaching staff
12. Inadequate development and support of teacher leadership
13. Partial staff involvement in the restructuring initiative

"group dynamics/teamwork skills" were selected by two schools. Factors 9, 11, and 6—"Changes in leadership at the district level," "Changes in teaching staff," and "Changes in leadership at the school site," were each selected by one school. No respondents chose Factors 8—"Teacher difficulty in managing internal conflict," 4—
"Lack of principal support," or 12—"Inadequate development and support of teacher leadership."

Five schools chose Factor 1—"Insufficient time for interaction" as detracting from teamwork. Four schools chose Factor 2—"Lack of opportunities to promote interaction" and Factor 13—"Partial staff involvement in the restructuring initiative."

In the literature on change processes, time is a factor that is routinely discussed as critical to the success of a change effort. The lack of opportunities to interact implied there may not have been enough prearranged, structured opportunities for staff to interact and reflect. This lack of opportunity to discuss proposed changes also could also have been influenced by weak administrative support, or by administrative opinion that staff interaction and collaborations were not beneficial or necessary.

Emphasis by respondents on the factor of time was evidence that it must be provided for and scheduled. Time has been repeatedly discussed as a prerequisite to any significant change effort (Joyce, 1990; Seashore-Louis & Miles, 1990).

Factor 13—"Partial staff involvement in the restructuring initiative" implied that, for various reasons, some staff members had no involvement or investment in the success of the initiative. This lack of involvement or interest probably meant that they did not participate in any staff discussions of interpretation of the initiative. This would have detracted from feelings of staff teamwork.

School by school identification of the most significant factors detracting from teamwork showed that Factors 5 and 7—"Lack of staff belief in teamwork" and "Principal difficulty in managing internal conflict" were each chosen by three schools. The staff, for undetermined reasons in this study, may not have wanted to work together or did not believe that teamwork was necessary to the accomplishment of
school goals. The principal may also have had difficulty in managing the differences in staff opinion in terms of arriving at a consensus for the good of the whole school.

Factors 3 and 10—"Insufficient staff development in group dynamics/teamwork skills" and "Lack of teacher teamwork skills" as detracting from teamwork at their school sites, were selected by two schools. These schools indicated that there was a lack of teamwork skills, and that staff development could have possibly helped them to achieve a teamwork ethic. This concept of staff development to help school staffs achieve teamwork was also discussed in the school literature on effective school change. Specifically, group process skills, communication, consensus building, helping and collegial relations, and conflict resolution skills were mentioned as skills for staff to develop (Smith & Scott, 1990).

The Factors 5 and 6—"Lack of staff belief in teamwork" and "Changes in leadership at the school site" detracting from teamwork at their school site were chosen by one school. The lack of a belief in teamwork would obviously have resulted in staff actions that failed to support collaboration. Changes in leadership would have caused teachers to assess and re-assess the new leader's belief in the philosophy of teamwork.

Factors Enhancing Student Engagement

In addition to the items on collaboration, teachers indicated factors that enhanced student engagement at the school site. On the questionnaire instrument, teachers checked three of the most significant factors they perceived as enhancing student engagement at their school site. The factors were listed for them, with additional spaces to write in factors. The number of respondents selecting the various factors is shown in Table 9.
<table>
<thead>
<tr>
<th>Factors</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Opportunities: skill transfer from inservice to classroom</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>2. Adequate time to practice new skills</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>3. Understanding of principles of l.c. instruction</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>4. Principal leadership &amp; support</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5. Opportunities to discuss instruction changes w/ colleagues</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>6. Belief l.c. instruction improves learning</td>
<td>13</td>
<td>20</td>
<td>6</td>
<td>29</td>
<td>16</td>
</tr>
<tr>
<td>7. Belief l.c. instruction improves responsibility</td>
<td>9</td>
<td>15</td>
<td>7</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>8. Assistance and support from colleagues</td>
<td>11</td>
<td>9</td>
<td>6</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>9. Assistance/support from curricular specialists</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Risk-free environment to make changes</td>
<td>23</td>
<td>11</td>
<td>4</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>11. Feedback from principal on classroom teaching</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>12. Feedback from colleagues on classroom teaching</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13. Positive feedback from students</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>14. Student achievement gains from restructuring effort</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>15. Student motivational gains from restructuring effort</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>16. Staff development focused on l.c. instruction</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note. l.c. = learner-centered.*
From Table 9, the top five factors enhancing student engagement are summarized in Table 10.

### Table 10

School Selection of Top Five Factors Enhancing Engagement

<table>
<thead>
<tr>
<th>School</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10, 4, 6, 1, 8</td>
</tr>
<tr>
<td>B</td>
<td>6, 7, 10, 3, 8</td>
</tr>
<tr>
<td>C</td>
<td>13, 4, 7, 16, (3, 12, 14 tie)</td>
</tr>
<tr>
<td>D</td>
<td>10, 6, 13, 7, 8</td>
</tr>
<tr>
<td>E</td>
<td>8, 6, 13, 10, 4</td>
</tr>
</tbody>
</table>

Factors

1. Opportunities for transfer of skills from inservices to classroom settings
2. Adequate time to practice new skills
3. Understanding of principles of learner-centered instruction
4. Principal leadership and support
5. Opportunities to discuss instructional changes with colleagues
6. Belief learner-centered instruction improves student learning
7. Belief learner-centered instruction improves student responsibility
8. Assistance and support from colleagues
9. Assistance and support from curricular specialists
10. Risk-free environment to make changes
11. Feedback from principal on classroom teaching
12. Feedback from colleagues on classroom teaching
13. Positive feedback from students
14. Student achievement gains from initial phases of restructuring effort
15. Student motivational gains from initial phases of restructuring effort
16. Staff development focused on principles of learner-centered instruction
School by school identification of the most significant factors which enhanced student engagement showed that Factors 10, 6, and 8—"Risk free environment to make changes," "Belief that learner-centered instruction improves learning," and "Assistance and support from colleagues," were selected by four schools. Factors 4, 7 and 13—"Principal leadership and support," "Belief that learner-centered instruction improves student responsibility," and "Positive feedback from students," were chosen by three schools. Factor 3—"Understanding of principles of learner-centered instruction" was selected by two schools. Four factors—"Opportunities for transfer of skills from inservices to classroom setting," "Feedback from colleagues on classroom teaching," "Student achievement gains from initial phases of restructuring," and "Staff development focused on principles of learner-centered instruction" were each chosen by one school. No schools chose Factors 2—"Adequate time to practice new skills," 5—"Opportunities to discuss instructional changes with colleagues," 9—"Assistance and support from curricular specialists," 11—"Feedback from principal on classroom teaching," or 15—"Student motivational gains from initial phases of restructuring effort."

For the school by school identification of factors enhancing engagement, there were none selected by all five school sites. Four sites selected Factor 6—"A strong belief in learner-centered instruction improves learning," which would be necessary to any implementation effort on learner-centered instruction. Factors 10 and 8—"Risk-free environment" and "Assistance and support of colleagues" were the two other factors chosen by teachers. In support of these factors, teachers felt they could try new teaching techniques without threat of risk or evaluation. Time and practice were needed for new skill acquisition and implementation by teachers. This collegiality and type of environment were cited by teachers as essential to the change
process. The teachers understood that staff assistance and support were necessary, and that no single individual had all the answers in terms of changing teacher behaviors.

**Factors Detracting From Student Engagement**

In addition to the items on enhancement of student engagement, teachers indicated factors that detracted from student engagement at the school site. On the questionnaire instrument, teachers checked three of the most significant factors they perceived as detracting from student engagement at their school site. The 13 factors were listed for them. The number of respondents selecting the various factors is shown in Table 11.

From Table 11, the schools' top five factors as detracting from student engagement are summarized in Table 12.

School by school identification of the most significant factors detracting from student engagement showed that Factors 2, 3, and 9—"Competing demands on time," "Insufficient time to practice new skills," and "Lack of opportunities to discuss instructional changes with colleagues," were selected by all five schools. Factor 8—"Uncertainty in applying principles of learner-centered instruction" was chosen by four schools. Factors 4 and 11—"Lack of sustained support for newly acquired skills" and "Incomplete understanding of principles of learner-centered instruction" were chosen by two schools. Factors 1, 5, 7, and 10—"Changes in principal leadership," "Lack of belief in providing students with choices," "Insufficient feedback from principal," and "Insufficient staff development on principles of learner-centered instruction," were selected by one school. Factor 6—"Insufficient feedback from colleagues" was not selected by any school.
### Table 11
Number of Respondents Selecting Significant Factors Detracting From Student Engagement

<table>
<thead>
<tr>
<th>Factors</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Changes in principal leadership</td>
<td>A 0 B 0 C 8 D 3 E 5</td>
</tr>
<tr>
<td>2. Competing demands on time</td>
<td>A 33 B 29 C 18 D 56 E 39</td>
</tr>
<tr>
<td>3. Insufficient time to practice new skills</td>
<td>A 18 B 7 C 8 D 28 E 21</td>
</tr>
<tr>
<td>4. Lack of sustained support for newly learned skills</td>
<td>A 2 B 2 C 4 D 17 E 2</td>
</tr>
<tr>
<td>5. Insufficient feedback from principal</td>
<td>A 1 B 6 C 0 D 5 E 2</td>
</tr>
<tr>
<td>6. Insufficient feedback from colleagues</td>
<td>A 4 B 3 C 2 D 7 E 2</td>
</tr>
<tr>
<td>7. Lack of belief in providing students with choices</td>
<td>A 6 B 1 C 1 D 8 E 11</td>
</tr>
<tr>
<td>8. Uncertainty in applying learner-centered instruction</td>
<td>A 13 B 6 C 4 D 16 E 12</td>
</tr>
<tr>
<td>9. Lack of opportunities to discuss instruction with colleagues</td>
<td>A 17 B 8 C 7 D 17 E 16</td>
</tr>
<tr>
<td>10. Insufficient staff development on l.c. instr.</td>
<td>A 6 B 3 C 1 D 20 E 4</td>
</tr>
<tr>
<td>11. Incomplete understanding of l.c. instruction</td>
<td>A 8 B 4 C 3 D 9 E 4</td>
</tr>
</tbody>
</table>

*Note.* l.c. = learner-centered.

The factors detracting from student engagement—"Competing demands on time," "Insufficient time to practice new skills," and "Lack of opportunities to discuss instructional changes with colleagues," were chosen by all five schools. Competing demands on time complicated teachers' ability to make changes in teaching practices perhaps due to the existence of an excessive number of goals, or other activities that were not related to making instructional changes. Factor 3—"Insufficient time to practice" involved teacher perception of both the necessity of practice and the lack of
Table 12

School Selection of Top Five Factors Detracting From Engagement

<table>
<thead>
<tr>
<th>School</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2, 3, 11, 9, 8</td>
</tr>
<tr>
<td>B</td>
<td>4, 2, 3, 9, (5, 8, 11 tie)</td>
</tr>
<tr>
<td>C</td>
<td>2, (1, 3 tie), 9, 8, 4</td>
</tr>
<tr>
<td>D</td>
<td>2, 3, 10, (4, 9 tie), 8</td>
</tr>
<tr>
<td>E</td>
<td>2, 3, 9, 8, 7</td>
</tr>
</tbody>
</table>

Factors
1. Changes in principal leadership
2. Competing demands on time
3. Insufficient time to practice new skills
4. Lack of sustained support for newly learned skills
5. Insufficient feedback from principal
6. Insufficient feedback from colleagues
7. Lack of belief in providing students with choices
8. Uncertainty in applying learner-centered instruction
9. Lack of opportunities to discuss instruction with colleagues
10. Insufficient staff development on learner-centered instruction
11. Incomplete understanding of learner-centered instruction

opportunity to discuss those changes with colleagues. These ongoing discussions with colleagues were felt necessary for staff to reflect, question, and resolve educational issues.
The teacher responses to Item 59 of the survey, "Inservices that helped to involve students in the instructional process," were summarized by each participant school (Figure 3). Schools A and E, those with the highest correlation between collaboration and engagement, had at least 12 teacher-reported inservices. Half of them focused on instructional issues, and the other half on social issues. The remaining schools reported almost exclusively instructional inservices. The trends noted for all five schools were school-wide inservices, a more direct link between inservices and school goals, and comprehensive inservices based on books or theories. Other content emphases were writing instruction, integration of technology, disciplinary approaches, and leadership.

Responses to Item 60, the final item of the questionnaire, "Inservices that enhanced a school's ability to work as a team," were summarized by teachers for each of the schools (Figure 4). Schools A and E once again had a balance of inservices that focused on social issues as well as instructional approaches. Other strands of familiar topics for all five schools included leadership, school-wide trainings, and team building.

The inservices at School A that enhanced the school's ability to work as a team included the C.L.A.S.S. project and those that dealt with specific social problems and inclusion. The C.L.A.S.S. Project contained several hour of instruction centered on integrated thematic instruction based on Hart's (1990) book, *Human Brain, and Human Learning*. This particular inservice was cited by more than one school as significant, and was of particular interest because it was school-wide. This
component of inservice education was commended as it gave teachers a common educational experience for reflection and discussion.

<table>
<thead>
<tr>
<th>SCHOOL A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Connecting elementary/jr. high/high school</td>
</tr>
<tr>
<td>2. Keeping track of records</td>
</tr>
<tr>
<td>3. Assistance dealing with emotional needs of students</td>
</tr>
<tr>
<td>4. Technical Integration</td>
</tr>
<tr>
<td>5. C.L.A.S.S. “Connecting Learning Assures Successful Students” (Brain Compatible Classroom)</td>
</tr>
<tr>
<td>6. Attention-Deficit/Hyperactivity Disorder</td>
</tr>
<tr>
<td>7. Abused Child Workshop</td>
</tr>
<tr>
<td>8. Mastery Learning</td>
</tr>
<tr>
<td>9. Obsessive Compulsive Disorder</td>
</tr>
<tr>
<td>10. Child of Alcoholic Family</td>
</tr>
<tr>
<td>11. Teacher Effectiveness Training</td>
</tr>
<tr>
<td>12. Brain Compatible Learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kids of the 90s—I and II</td>
</tr>
<tr>
<td>2. Thematic</td>
</tr>
<tr>
<td>3. Literature based</td>
</tr>
<tr>
<td>4. Discipline</td>
</tr>
<tr>
<td>5. TRIBES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ethnobiology</td>
</tr>
<tr>
<td>2. Science by doing</td>
</tr>
<tr>
<td>3. Technology workshops</td>
</tr>
<tr>
<td>4. Reading/writing workshop</td>
</tr>
<tr>
<td>5. Conflict resolution</td>
</tr>
<tr>
<td>6. Gifted and talented in the regular classroom</td>
</tr>
<tr>
<td>7. Environmental education</td>
</tr>
<tr>
<td>8. Positive classroom discipline</td>
</tr>
</tbody>
</table>

Figure 3. Inservices Enhancing Engagement.
**Figure 3—Continued**

### SCHOOL D

1. Re:Learning  
2. Staff retreats  
3. Socratic Training  
4. Exhibitions in the classroom  
5. Glasser: Choice Therapy  
6. Glasser: Reality Therapy & Classroom Management  
7. Technology  
8. Spring Forum  
9. Socratic Seminars  
10. Extensive writing classes  
11. Block scheduling/time  
12. Masters + hours  
13. Outcomes Based Education  
14. Personal/ongoing restructuring  
15. Tech Prep  
16. Quality School

### SCHOOL E

1. Tech Prep  
2. Study skills  
3. Positive attitude  
4. Teacher Leadership Academy  
5. Harry Wong’s “First Day of School”  
6. Marian College N.A.S.D.A.C. Standards  
7. Teaming  
8. Leadership Training Study  
9. Authentic assessment  
10. *Seven Hats*  
11. *Seven Habits of Highly Effective People*  
12. Internet software/Technology  
13. Nine Principles—Coalition of Essential Schools

Figure 3. Inservices Enhancing Engagement.
SCHOOL A
1. Buddy System for Inclusion
2. Helping students from broken homes
3. Dealing with violence
4. Dealing with theft
5. Dealing with sexual misconduct
6. Motivation for students not participating in sports
7. CLASS training-school wide
8. School-wide use of life skills and lifelong guidelines

SCHOOL B
1. Discipline in the classroom as part of the curriculum
2. Indiana Principal Leadership Academy
3. Team building/dynamics

SCHOOL C
1. Team building
2. QUEST

SCHOOL D
1. Reality Therapy
2. Peer Mediation
3. Teacher Expectations and Student Achievement (T.E.S.A.)
4. Management systems for teachers
5. Learning Styles
6. Impact Training
7. Learning Centers for Teachers

SCHOOL E
1. Teacher Leadership Academy
2. School on-site visitations

Figure 4. Inservices Enhancing Teamwork.
Summary and Implications

A positive relationship between collaboration and student engagement was shown for three schools. Two schools demonstrated a moderate, positive relationship and two demonstrated a low, positive relationship. One school demonstrated little, if any, correlation.

The school with the strongest positive correlation between variables was School A, at 0.58. The next three highest included School E at 0.53, School C at 0.41, and School B at 0.32.

Teacher perception of the most significant factors enhancing teamwork for five schools included only one factor, “Staff ownership of the change process.” Four schools chose the factor “Staff belief in teamwork,” and three schools chose the factors “Staff development” and “Commitment to the school vision.” At two schools, the following factors were chosen: “Principal expectation of teamwork,” “Principal and teacher sharing of authority,” and “Site-based decision-making.” One school each chose the factor of “Principal leadership,” “Teacher leadership,” “Opportunities for constructive professional dialogue during the day,” or “School internal communications.”

Teacher perception of the most significant factors detracting from teamwork for all five schools included only the factor of “Insufficient time for interaction.” Four schools selected the factors “Lack of structured opportunities to promote interaction” and “Partial staff involvement in the restructuring initiative.” Three schools selected the factors “Lack of staff belief in teamwork” and “Principal difficulty in managing internal conflicts.” Two schools selected “Lack of teacher teamwork skills” and “Insufficient staff development in group dynamics and
teamwork skills.” One school each selected one of the factors “Changes in leadership at the district level,” “Changes in teaching staff,” and “Changes in leadership at the school site.”

Factors selected by four schools which enhanced student engagement included a “Risk free environment to make changes,” “Belief that learner-centered instruction improves learning,” and “Assistance and support from colleagues.” Three schools chose “Principal leadership and support,” “Belief that learner-centered instruction improves student responsibility,” and “Positive feedback from students.” Two schools chose “Understanding of principles of learner-centered instruction.” One school each chose one of the factors “Opportunities for transfer of skills from inservices to the classroom setting,” “Feedback from colleagues on classroom teaching,” “Student achievement gains from initial phases of restructuring,” and “Staff development focused on principles of learner-centered instruction.”

Factors selected by five schools which detracted from student-engagement included “Competing demands on time,” “Insufficient time to practice new skills,” and “Lack of opportunities to discuss instructional changes with colleagues.” Four schools selected the factor “Uncertainty in applying principles of learner-centered instruction.” Two schools chose the factors of “Lack of sustained support for newly acquired skills,” and “Incomplete understanding of principles of learner centered instruction.” One school each chose one factor “Changes in principal leadership,” “Lack of belief in providing students with choices,” “Insufficient feedback from principal,” and “Insufficient staff development on principles of learner-centered instruction.”

In summary, teachers perceived the time for discussion and understanding new teaching strategies as prerequisite to the adoption and implementation of new
strategies. The teachers also perceived principal leadership and support as essential to the establishment of a collaborative work environment. According to Lieberman (1988), collaboration does not come automatically. It has to be nurtured and learned.

Summary of Inservice Education

Inservices that were the most helpful to teachers to engage students ranged on a variety of topics for each of the schools. Examples of them were studies of Glasser's work, disciplinary strategies, and thematic learning. Inservices that teachers perceived enhancing their teamwork most often were C.L.A.S.S. (The Brain Compatible Classroom), the Indiana Principal Leadership Academy classes, and Team Building/Team Dynamics inservices.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purposes of this study were (a) to examine the strength of the relationship between school collaboration and teacher-student engagement practices, (b) to identify the factors that have contributed to collaboration and teacher-student engagement practices, and (c) to determine the factors that detracted from or compromised collaboration and teacher-student engagement practices.

What is the strength of the relationship between school collaboration and teacher-student engagement?

Public schools have been complex organizations functioning with the development of complex, multifaceted reform initiatives. Within restructuring schools, it was difficult to change teaching behaviors, and the Indiana 2000 schools were no exception. In this research, collaboration and student engagement were goals contained in each of the Indiana 2000 proposals. These goals required teachers to make changes in their style of instruction based on a new philosophy of student learning. The questionnaire was intended to assess what teachers individually did in their teaching to engage students more actively in the classroom through responsibility for learning and assessment.

In this study the strength of the relationship between collaboration and student engagement for each of the five schools as based on scatterplots is shown in Appendix I. The scatterplots of Schools A, E, C, and B appeared to be linear and have the strongest, positive relationships of the five schools (Appendix I). School A,
an elementary school, had a Pearson $r$ of 0.58, which was a moderate, positive correlation, the highest of the five schools sampled. School E, a high school, had a correlation of 0.53, which represented a moderate, positive correlation; School C, a middle school, had a 0.41 correlation which represented a low, positive correlation; and School B, an elementary, had a correlation of 0.32, a low positive correlation. School D, a high school, had a correlation of 0.27, reflecting little, if any, correlation.

In summary, four of the five schools studied showed varying degrees of relationship between the two variables of collaboration and student engagement, and one school demonstrated little, if any, correlation.

For School D, no relationship was demonstrated between variables. This lack of relationship was explained for School D which appeared to have set some major goals which contrasted from goals focused on student engagement. These goals were not measured by the investigator-created questionnaire used in this study. The goals of School D centered on organizational/curricular changes resulting in an interdisciplinary approach with small teams of teachers and students. This background information and written progress summaries were documented by outside resource consultants. School D appeared to be making substantial steps toward school goals.

School B, an elementary, had a “school within a school” design and was a Blue Ribbon school as recognized by the Indiana Department of Education. (This recognition is based on improvements in school test scores and attendance.) This school has been a “Four Star” school since its inception, which indicated ongoing gains in achievement, attendance, and discipline. Their school slogan was “The Child-Centered School,” and according to the school principal, “The student has always been the focal point.” It is a school that has always done well, and its success
became the major barrier to making changes in curriculum, instruction, and assessment.

Parents were given choices regarding a student's placement, and students were given some choices in school work, such as the selection of novels. In the area of student assessment, writing portfolios, narratives, rubrics, self and peer evaluations were being used. Possible reasons for the low correlation could be speculated that the entire school was not actively involved with the restructuring effort, that school goals were not seen as student-centered, or that inadequate time was given for the project.

School C, a middle school, was located in a relatively low socioeconomic community, with three changes in the principalship during the restructuring period. Undoubtedly, these changes in leadership affected the school. This school had goals of site-based management and interdisciplinary instruction, as determined from principal interview. These were different goals than student-centered instruction measured by the questionnaire.

One common piece of information obtained about all five schools was that the principals felt each of their schools had experienced increased collaboration and trust. They perceived they had provided ample opportunities for teacher leadership which teachers had utilized, and that their schools were moving in positive directions.

What were the factors that contributed to collaboration and student engagement?

In addition to the items on collaboration and engagement, teachers indicated factors which enhanced teamwork at the school site. The strongest factors (selected by four or five schools) were staff ownership of the change process and staff belief in teamwork. Ownership of the change process was directly related to teachers being active and decisive in decisions relative to the changes being proposed. Teachers
obviously felt the need to play an active role in the change process. This role was underscored by a belief in the process of teamwork and the benefits of such teamwork.

For factors enhancing student engagement, there were none selected by all five sites. Four sites selected three factors: a strong belief that learner-centered instruction improves learning, a risk-free environment to make changes, and assistance and support of colleagues. These factors demonstrated that a strong underlying belief system that learning was improved for engaged students was necessary, that a risk-free environment free of evaluation had contributed, and the interaction of colleagues with support and assistance was absolutely necessary to teachers for changing teaching methodology. Historically, it was unlikely that teachers were evaluated on new changes, or that the support and assistance of colleagues occurred in many school situations.

Teachers at the restructuring schools were perceiving that evaluation was to be directly related to their school goals, which introduced an element of uncertainty as to what would result from their “non-success.” Teachers needed to practice instructional strategies without the threat of evaluation until these strategies became a part of their “new” teaching style. This process was time consuming. If evaluation was to take place, teachers would have resorted to their “old” successful teaching methods rather than risk appearing unsuccessful with new methods (Rosenholtz, 1989).

Finally, teachers perceived that the interaction of colleagues was essential to their assimilating new teaching methodologies. As teachers were changing, they realized the importance of collegial interaction to discuss questions and obtain feedback relative to the new strategies.
What were the factors that compromised or detracted from collaboration and engagement?

The factors selected by four or five schools which detracted from teamwork included insufficient time for interaction, lack of structured opportunities to promote interaction, and partial staff involvement in the restructuring initiative. These factors involved the time factor, the necessity for structured opportunities to promote interaction, and the necessity for all staff to be involved with school restructuring. The time factor continues to be promoted as an “excuse” rather than a real reason for teachers not working together; however, available time has to be planned for and utilized in the most efficient and creative ways. Principals need to engage the participation of all staff members and they need to do so with structured, valid opportunities to move the staff forward on school goals. When groups of teachers, rather than individuals “are seen as the main units for implementing curriculum, instruction, and assessment, they facilitate development of shared purposes for student learning, and collective responsibility to achieve it” (Newmann & Wehlage, 1995, p. 38). When school staffs have agreed upon goals and the methods to achieve them, the foundation became set for school change and improvement (Joyce & Showers, 1988; Rosenholtz, 1989). School change was more likely to happen when these conditions were present.

The factors selected by four or five schools that detracted from student-engagement included competing demands on time, insufficient time to practice new skills, lack of opportunities to discuss instructional changes with colleagues, and uncertainty in applying principles of learner-centered instruction. The selection of these factors reiterated the need for adequate time, time to practice new skills, opportunities to discuss changes with colleagues, and the necessity of ongoing
education so that teachers can understand and implement instructional changes. There were demands on time which emanated from all levels within the school system, making it more difficult to focus a school's attention. It was the staff interaction that provided the discussion and ongoing clarification of movement toward school instructional changes. Time to practice new skills also has to be made available, as teachers slowly and with greater uncertainty, make changes in teaching strategies. Education has to be provided as teachers need to understand the "hows" and "whys" of new strategies thereby providing the foundation for common staff discussion. If this education was lacking, the likelihood of school change seemed doubtful.

There are factors which affected the results of this study. One factor which affected the results of this study was sample size, as only five participant schools were utilized. Another was that an investigator-constructed questionnaire was used to determine teachers' perceptions of the variables. An additional factor was that teacher perceptions formed the foundation for the study which indicated that the biases of teachers were confounded in the results, as opposed to the use of methods requiring direct, objective observation by an outside consultant.

Restructuring schools was a complex process, but it seemed to lend itself to effecting change. It was a process that demanded collaboration and consensus on goals as the school moved forward. It was a process that facilitated the statement of goals and assessment of goal progress. Changing teacher behaviors was only one component of that process. During the restructuring process, it was difficult to capture and quantify all of the changes schools were working on simultaneously (Anderson, 1989; Fullan, 1991).
Schools typically have changed little over the years, and yet have repeatedly emphasized the need for change. Personal experience in a restructuring school supports the necessity of collaboration at all levels, usually with limitations of personnel and financial resources. As Conley (1991b) has stated, there were more discussions of common goals and increased collaboration resultant from the 2020 grant in Oregon. (The 2020 grant was a grant provided to the Oregon schools, similar to the Indiana 2000 initiative.) Examples of processes which required collaboration were grant writing, curriculum development projects, off-site visitations, research and vision activities and committees to administer the grant (Conley, 1991b).

This may be one of the most important dimensions of 2020: simply getting people to come out of their classrooms and talk to one another more about what they value, what works, what is frustrating, and how common problems might be solved. (Conley, 1991b, p. 17)

In general the need for collaboration was generally recognized (Schlechty, 1997). The benefits of collaboration were known, such as improved teaching and learning and greater implementation of change initiatives. The power of collaboration as a tool to mediate changes was recognized. Each of the types of collaboration—teacher, parent and student—contributed in various ways to affect school reform.

It was interesting to note that collaboration brought educators together in discussions. The Indiana 2000 schools with focused goals derived from school-wide agreement provided a solid foundation to effect changes. The funds provided to the schools over a 5-year period gave them the means to achieve the school goals. It was not surprising that schools where teachers were discussing common goals, problems and solutions with the principal, parents and other teachers, that change was brought about on a number of goals.
There were many identifiable factors that potentially could mitigate or impede change. These included changes in teaching staff, changes in leadership at the school site, the size of the school, the number of change initiatives, upper administrative changes, staff development and lack of resource assistance. These factors should be recognized and controlled for as much as possible in any change effort, so that a change effort has a higher probability for success.

If schools were to become capable of collaboration according to Schlechty (1997), there were two prerequisites. First, there must be changes made to the system of governance and the policies that govern the operation of the schools. School leaders must have control over personnel appointment and evaluation. Leaders must also be able to have control over budget, time and space and technology. Schlechty then proceeded to warn that “without control over these areas of school life, the school will remain too vulnerable to outside influence to operate with confidence in collaborative relationships,” and schools will remain authoritarian and reactive rather than open and proactive” (p. 127).

Secondly, schools must be able to distinguish between collaborative endeavors designed for the support of students and those designed for school operation. In this latter circumstance, the school should be viewed as the dominant partner in the relationship. Educators are in a good position to assess whether the needs of children are not being met. School leaders must safeguard the rights of children in securing the support needed for children to be successful in school and life. This does not mean, however, that the schools are obligated to provide this support. The schools’ role should be “to provide leadership and advocacy” (Schlechty, 1997, p. 128). The community should be providing this support to children.
Summary

Restructuring reform takes considerable time, 5 to 10 years or more (Fullan, 1991). This means that evaluation of such efforts should take as long or longer. Collaboration takes more than “good will and good intentions” (Schlechty, 1997, p. 126). Schools frequently react more to the environment more than they act on it. The results are more often less than satisfying. Intense competition often develops between schools within the same district. Networking between schools is often more difficult between schools in the same district than between schools from different districts. New difficulties arise with the cooperative efforts involving more than one school district (Schlechty, 1997).

“First and foremost, the school is an educational agency. The primary job of the school is to provide each child with rich and challenging experiences that will result in the child’s being well educated” (Schlechty, 1997, p. 128). The school does not provide these full-service needs, but its role is to act as a leader and advocate with maximum effectiveness and efficiency (Schlechty, 1997, p. 128). Schools must also provide the leadership to assist the community with its task of supporting children.

Schools with all their complexity were difficult to study using specific variables. They were and continue to be complex, multi-faceted organizations. A change in one variable resulted in multiple changes in a number of variables. Time was an important variable, and for this study it had to be considered in terms of what teachers could reasonably and willingly complete. Student engagement, as a part of student achievement, implied changes in teaching style. Without direct instruction and staff development, teachers could not be expected to make the required changes. This
variable was highly critical to the success of change initiatives. Throughout the years much information has been obtained about effective staff development and those variables that help teachers change instructional practices.

School leadership was a significant variable. Many schools, particularly in larger school systems, have undergone frequent changes in leadership. This made it more difficult for change to occur. It was highly important that school leaders be maintained in schools for a length of time conducive to and supportive of proposed changes.

Schools that have become successful with making changes should be promoting the facilitating factors, as opposed to advancing the actual changes made. These schools should also be praised and reinforced for the steps they have taken to accomplish their goals. Change takes time, and educators and the public need to be patient.

Indiana, in comparison to other states, has a low ranking of student achievement. Currently the state legislature is addressing new accountability measures. These discussions, involving few educators, will be focused on the academic growth of individual students. In other words, Indiana 2000 will be changing to some other accountability initiative. The process through which this will be completed, and a decision about the purposes the information will be used for, have not yet been determined. Certainly one factor that needs addressing relative to the academic growth of students is the transiency of students, particularly in the urban areas. Another related factor is the amount of school time missed due to reasons other than transiency.

Much useful information about how to change and improve teaching is available. We have seen the strength of collaboration and its positive benefits for
students, including achievement. We have seen the strength of collaboration for teachers, and yet have not realized all of the benefits that can result from collaboration. The restructuring changes made in these five participating Indiana schools in this study were supported financially for a short period of time. Historically, Indiana promises money, and then withdraws its financial support.

The recommendations for further study would be to analyze the achievement of students in schools over a longer time period, perhaps within an ethnographic framework. The analysis of the types of collaboration, their impacts, and differences among them in relationship to student achievement would also be worthwhile endeavors. We should also continue to research how collaborative school cultures serve quality teaching and learning, and the process of how teachers make changes in teaching practice. These ideas for further study should also be accompanied by adequate, ongoing financial support, instead of intermittent funds of monies provided to different school sites for “new” initiatives. The progress of these initiatives should be documented and made available to educators and the public.

“Schools with professional collaboration exhibit relationships and behaviors that support quality work and effective instruction” (Peterson & Brietzke, 1994, p. 3). Teachers should become part of “communities of learners” (Barth, 1990) and instructional leaders and collaborators with principals, colleagues and parents. As Barth (1990) succinctly stated, “Insufficient attention has been given to the important relationships among the adults within the school and to a consideration of how the abundant untapped energy, inventiveness, and idealism within the schoolhouse might be encouraged” (p. xiv). “Changes in schools may be initiated from without, but the most important and lasting changes will come from within” (Barth, 1990, p. 159).
Appendix A

Protocol Clearance From the Human Subjects
Institutional Review Board
To: Dr. Robert Brinkerhoff  
Cynthia L. Kujawski  

From: Richard A. Wright, Chair  
Human Subjects Institutional Review Board  

Subject: HSIRB Project # 96-08-13  

Date: August 30, 1996

This is to inform you that your project entitled "Teacher Perceptions of Collaboration and Student Engagement in Six, Twenty First Century Restructuring Schools in Indiana," has been approved under the exempt category of research. This approval is based upon your proposal as presented to the HSIRB, and you may utilize human subjects only in accord with this approved proposal.

Your project is approved for a period of one year from the above date. If you should revise any procedures relative to human subjects or materials, you must resubmit those changes for review in order to retain approval. Should any untoward incidents or unanticipated adverse reactions occur with the subjects in the process of this study, you must suspend the study and notify me immediately. The HSIRB will then determine whether or not the study may continue.

Please be reminded that all research involving human subjects must be accomplished in full accord with the policies and procedures of Western Michigan University, as well as all applicable local, state, and federal laws and regulations. Any deviation from those policies, procedures, laws or regulations may cause immediate termination of approval for this project.

Thank you for your cooperation. If you have any questions, please do not hesitate to contact me.

Project Expiration Date: August 30, 1997
Appendix B

Demographics of Participant Schools
DEMOGRAPHICS

SCHOOL A

School A, an elementary school (K–6) was located within a small school district composed of one elementary, one middle, and one high school in a community of 7,000 persons. Using state average data in Indiana for comparative purposes, this community had above state averages in the number of single parent families and percentage of unskilled laborers in the work force. It also had below state averages in percentages of professional employees and in the number of parents with advanced levels of educational attainment. The district had a high percentage of children from “economically and educationally deprived backgrounds, and a disproportionate number of students classified as special education students” (Indiana 2000 Proposal).

Historically, coal mining had been a primary industry with employees having achieved minimal educational status. The district reported an underlying influencing problem of a lack of parental support of the value and necessity of an education. An inordinate number of student expulsions and high drop out rates plagued this school and this district.

Vision and Primary Goals

The original proposal of School A indicated a vision of their desired future state had not been determined, however, general plans for the development of a vision were specified. One primary goal of School A was premised on the district’s formation of the Planning Team, whose composition would include Board members, administrators, teachers, and corporation employees as well as students, parents, business and community members. The Planning Team was to develop a set of
common beliefs, a mission statement, a set of long-term goals, and general strategies for the accomplishment of these goals. This information was in turn to be submitted to the Board for consideration and adoption. Community discussions were held which focused on research information and school on site visitations were conducted to restructuring schools. Subsequent to the adoption of the Planning Team, the thrust was to formalize site-based decision making in each school in the district through the formation of School Community Councils. Training was provided in site-based management processes and group dynamics skills. Each School Community Council was to have authority to create a vision and set goals with congruence with the district vision and goals.

A second primary goal of School A was to increase parental involvement through a re-thinking of strategies of how parents could be more actively engaged in the school, as decision makers, as learners, and as teachers themselves. The overarching aim would be to involve parents in significant activities related to the instruction of children. A particular thrust was to attempt to reach the families who historically had become disenfranchised from the school system. Some parent and community involvement possibilities were to be explored in the areas of support groups, family literacy programs, latchkey programs with homework assistance partnerships with community groups, electronic mail and teacher support groups.

A third goal was to re-think and re-design the curricula and instructional processes. At this time, general strategies were indicated as opposed to specific interventions due to the absence of a clear vision.

Highlights of the proposed changes included the following:

1. Learner-centered instruction with the learner involved in the planning, implementation and evaluation of his learning;
2. Instruction based on student academic needs, student interest, and developmental needs;

3. Multi-age grouping/differentiated staffing, and possible teacher responsibility for clusters of students;

4. Use of thematic units for a holistic approach;

5. Education extension into the community;

6. Individualized learning plans;

7. To research and visit successful, highly effective schools with some of the identified components in 1–6 (above). (Indiana 2000 Proposal).

The process of translation of the vision is the responsibility of each S.C.C. (School Community Council) and the Process Action Teams. The Process Action Teams (P.A.T.'s) with responsibility to develop plans supportive of its vision, existed at the district and school site levels. The teams consisted of 5 to 15 members including administrators, teachers, students, parents, university personnel, and community members.

Commitment

School A cited a history of positive changes through the use of grant funds as evidence of their school's commitment to restructuring. Some of these changes included increased counseling intervention for students, teachers, and parents; technology grants with the introduction of classroom computers, and technological networking with Indiana University software. Additionally, the strong local school board supported site-based management and monetary support for teacher and program initiatives.

School A also reported a history of collaborative problem-solving and communications within district and community, which naturally tunneled into shared
decision-making at the school site level. School A reported quality staff development which aided in the implementation of school goals. Networks and support teams of teachers transitioned the staff development function to the school with consultative and supportive district resources, and combined additional networking with schools involved in similar restructuring efforts.

Evaluation

School A delineated desired student knowledge and skill outcomes, and the exploration of the measurement of these outcomes. Student portfolios, and surveys for students, teachers, and parents' perceptions, and aggregate assessments of individual students were to be utilized. Finally, there were to be regularly scheduled reviews of the action plans by the S.C.C. and P.A.T.'s, with reports forwarded to the Superintendent and School Board.

SCHOOL B

Elementary School B, a new school opened in 1989, was located in a small school district in the central portion of the state with a current enrollment of 603 in grades K–5. This district had nine elementary schools, two junior highs, and one high school. The school housed programs for moderately mentally handicapped and severely emotional handicapped, and for highly capable students (gifted/talented programs). In contrast with elementary School A, School B served a community with a majority of upper-middle class socioeconomic status with well-educated, professional parents who maintained very high performance expectations for their children and the school. The Parent Teacher Organization (P.T.O.) was an active group with 20 committees that extended student positive educational experiences.
These ranged from teaching self-concept and disability awareness to after school enrichment, and computer/high tech inservices for teachers. The P.T.O. acted as a liaison/resource for grade level and cultural enrichment, and sponsored the "Active Parenting" classes.

Vision and Primary Goals

The vision consisted of providing students with a "challenging and success oriented environment regardless of ability, age or talents" (Indiana 2000 Proposal). The purpose was for preparation for participation in a culturally diverse global society. A "School within a school" concept was proposed. Emphases were on critical thinking, problem solving, creativity, resource research and inquiry skills through the use of alternative, flexible methods of instruction.

A primary goal of School B was to develop a School Home Community Council of 12 to 15 stakeholders with representation of teachers, parents, and business community members, reflective of diversity in the community. Parents were to be involved in the development of a community resource index with communications to encourage parent participation. The proposed topic exploration included cross-age grouping, alternative assessment, and home learning strategies.

Another primary goal was to formulate an interdisciplinary curriculum with four 9-week segments. The active participation of students was encouraged in their learning through personal learning plans, portfolios, and state of the art technology. Personal learning plans were developed by students, parents and facilitating team members which reflected the unique abilities and needs of the individual. Non-graded/performance based criteria were utilized to assess progress. Conferences, including students, were to be held at the end of each 9-week theme unit.
Commitment

School B's commitment to the restructuring initiative was reported as positive and comprehensive, including the staff, P.T.O. board, district office, teacher union and school board. An emphasis was placed on staff development for the entire school staff focused on the following areas: instructional methodology, brain compatible education, self-learning, continuous growth, relationships and interconnectedness, transformational skills, technology, Investment in Excellence, multiculturalism and gender-fair thinking. In addition to staff development, the facilitators of the parallel school participated in training and research for the concepts which formed the foundation for the parallel school: critical thinking, creative problem solving, cooperative learning, discovery through technology, and social and emotional growth.

Evaluation

The evaluation of School B was determined by the School Home Community Council and the project facilitators. Student success was to be monitored through review of the Personal Learning Plans, formal surveys, and weekly logs, as opposed to solely traditional reviews of student grades.

SCHOOL C

School C middle school was located in a rural community in the extreme southern portion of the state with an enrollment of approximately 700 students. The school district had four elementary schools, one junior high, and one high school, with projected slight increases in annual enrollment.
Historically, the agrarian based economy had gradually expanded to include new industries. 68% of the occupational farmers now had full-time positions outside of agriculture.

The district described the county with the following indicators:

1. Largest food stamp program per capita of any county in the state.
2. Second largest welfare per capita of any county in the state.
3. The percentage of population enrolled in the Medicaid program was double the state average.
5. One of the highest percentages of teenage pregnancies and low birth weight babies in the state.
6. Unemployment rate at double the national average.
7. Median household income 21% lower than the state average and 16% lower than the national norm.
8. Lowest educational attainment in Indiana with only 48.6 percent having a high school education.

The current program was traditional with a seven-period day. The identified concerns, as follows, spurred the development of the restructuring proposal:

1. The program did not meet the needs of adolescents due to the high number of failures;
2. The alarming results of the self-esteem inventory;
3. 5% attrition rate of seventh graders (in the year prior to receipt of the grant)
4. High drop out rate of retained students;
5. 28% of students received textbook assistance;
6. The observation that the media center was not productively utilized by students.

Vision and Primary Goals

The vision for School C was the creation of an accelerated program that addressed adolescent needs and created successful learning experiences for all students. One primary goal focused on formation and training for the development of site-based decision making with representation of educators, parents, and community agencies. A Parent Involvement Cadre was developed. Partnerships were formed with business and community agencies with emphasis on community service projects.

Another primary goal was to change the curriculum from a traditional junior high model to the “Accelerated Schools Model” (Stanford University) with a focus on greater student success. Within that model there was to be an overarching aim to strive for educational quality and equity with a core curriculum. That is, there was to be with no tracking for gifted or remedial students. Aspects of the restructuring effort were to include the interdisciplinary teaming of teachers, thematic units, service projects, and educational technology and community building within the school. Integration of authentic Teaming sources, hands-on activities, peer tutoring, active Teaming, cooperative Teaming, alternative assessment, self assessment, and use of a non-graded approach with no failure, were additional aspects. Within the context of a “bottom-up” management style, the teacher, administrator and student roles were to change. Teachers were to become facilitators, administrators to become enablers, and parents and community members to become partners. Students were to become constructors and producers of knowledge.
The organization of School C was to restructure to a model with a number of components of the middle school as follows:

- small groups of students linked to teachers, and
- the addition of an advisor-advisee program with a planned curriculum focused on self-esteem.

Staff development was to be an integral part of the restructuring with the development of the Staff Development Cadre, and utilization of needs assessment and goal prioritization processes. Topics were to include adolescent needs and the role of advisors, with other goals/activities derived from the needs assessment.

Evaluation

Both formative and summative evaluations were to occur with the utilization of an outside consultant. Annual formal evaluations were to be conducted by the Cadres, Team and Council. Students were to be actively engaged in the evaluation process having roles in the collection and interpretation of data.

SCHOOL D

High School D, located in the north central portion of the state, was one of two high schools in a district containing fourteen elementary, three middle schools and a vocational program. The district enrollment was approximately 60,000, with an enrollment of over 1500 students at the high school. The school population was approximately 19% minority, with 17% black and 2% Hispanic. The economic base of this community relied heavily on the mobile home, van conversion, and recreational vehicle industries, as well as on numerous suppliers for those industries.
Averaging four years of data prior to the restructuring initiative in 1990, the district reported a 64–75% graduation rate, high school classes with 20–40% failure rates, three academic tracks of academic, general and vocational, with minimal involvement of stakeholders in constructive or comprehensive ways. School D had received funds from the Lilly Endowment prior to receipt of the Indiana 2000 funds which gave the school a head start with extensive planning for school change, school goals, and evaluation.

Vision and Primary Goals

The vision for School D was to raise the achievement levels of all students utilizing a collaborative planning approach. The vision was based on a number of beliefs about learners and the purposes of schooling. The high school was to be transformed into four school communities within the school. Each “school within a school” community was to be representative of the diversity within the school. Classes were to be structured heterogeneously, non-tracked and have an interdisciplinary focus, with an effort to extend the relationships between students and teachers, and among students. The program was entitled “High Achievement for All.”

In the area of curriculum and instruction a goal was to re-conceptualize the learning environment, the roles of the teachers and learners, and the work environment. The learners were envisioned as thinkers and producers in the classroom within a learning community. Teachers’ roles entailed leadership, with the principal acting as facilitator. Technology was integral to the goals.

Parents and community members were envisioned as more actively involved. The re-design also included the initiative to link with other programs, area

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universities, and the national restructuring network for intercommunication on effective teaching practices and instructional strategies. Specifically, the primary goals was to raise achievement through the following:

1. The establishment of two learning communities (one at Grade 9 and one at Grade 10) integrating language arts, math and science; the interdisciplinary approach was designed to engage students and to connect student learning with the outside world.

2. The design of a student support program (S.S.P.) as an advisor/advisee program for all ninth and tenth graders; the purpose was to help students develop life goals and educational plans and to help develop a sense of community; to help develop programs and services that aided in student transition to high school.

3. The establishment of a Restructuring Council with stakeholder representation and responsibility for decision-making and assessment of school goals.

A staff development program was provided for all staff, directed at reinforcing new beliefs about teaching and learning (prong 1), and provided support for the staff members who volunteered to participate in the actual development work (prong 2). The content of the first prong for all staff included educational applications and instructional designs based on brain research, strategies for multicultural diversity, learning styles, Gardner's theory of "Multiple Intelligences," community building, cooperative learning, outcomes based education, and multiple forms of assessment.

The content for the second prong of staff included the following: determination of student outcomes, development of thematic instruction, design of
single concept units, de-tracking, development of individual and group projects, adoption of community building activities, implementation of cooperative learning strategies and design of instruction to enhance multiple intellect.

Commitment

This school's commitment was demonstrated with receipt of the Lilly grant for the early planning stages. The "school within a school" concept allowed for change to proceed slowly and deliberately. Annual reports to this foundation with outcomes planned for years 1, 2, and 3 were made available. Extensive documentation existed for the steps the school had taken to make restructuring changes. The plans were vision-based with no pre-design, which allowed for needed changes to be made in the school's restructuring journey.

Evaluation

A preliminary listing of participant and program success indicators was developed for years 1, 3, and 5 of the project. Outside consultants from Indiana University and the University of California assisted with student assessments of the learning team experiences, and documentation of how the overall change efforts have impacted high achievement for all students. (Lilly Foundation, Annual Report to Lilly Endowment, 1993, 1994).

Prior to 1996, the Learning Communities involved one-third of ninth and tenth graders. In 1996-97 the Learning Communities concept was expanded to allow access by all ninth graders. This step acknowledged and reaffirmed the important need for the, transition of ninth graders to the high school experience.
SCHOOL E

High School E was located in a small community of 14,500 within a metropolitan county with proximity to the state capital. The school district contained four schools—two elementary schools, one middle, and one high school, with a total student population of 2000. Seventy-eight percent of the student population completed all 4 years of high school at School E, contributing to the strength of the school. Forty percent of the students continued on to post-secondary training.

The district reported a stable student population with a tripling increase in Chapter I funding. These students were economically disadvantaged students experiencing learning problems in Math and Language Arts. The interpretation of this piece of information reflected a decline in the socioeconomic levels of patrons and families in comparison to the surrounding communities. A substantial number of minimum wage opportunities discouraged students from pursuing long range educational goals. 1989–1990 demographic data provided by parents revealed the following:

1. 10% of the fathers and 6.4% of the mothers held a bachelor’s degree;
2. 46% of the families reported an income level of 35,000 or less; 39% of the families had an annual income between $35,000 and $55,000 and only 15% of the families had an income level above $55,000 per year.
3. The career information was summarized as follows:
   a. 1% of the fathers indicated they were professionals, while 52% stated they were semiskilled, skilled or in service occupations;
   b. 2% of the mothers indicated they were professionals, while 37% reported occupations as clerical, semiskilled or skilled; 15% were homemakers.
Vision and Primary Goals

The preliminary vision at School E was described as one that reflected students as actively engaged in learning in the classroom, community, businesses, and the college campus, with the advantageous opportunity to earn full tuition at I.U.P.U.I. A transformation was to occur from the traditional education of teacher and subject-centered, to one that was interdisciplinary and holistic based on the knowledge and thinking skills required for the future. Inquiry, research, reflection and interactions with topics within a flexible time framework were to be emphasized, with teachers in the role of facilitators. Technology and multiculturalism were to be interwoven into the curriculum and research. A broad, overriding vision was to increase students and parent aspirations, faculty interaction and expectations, and parent and community involvement and linkage. The goal was the promotion of educational excellence and life-long learning.

The COMPACT (guidance contract) was developed for every student beginning at the sixth grade level which included annual student goals, strengths and competencies, and contained portfolios of multiple indicators of student assessment of performance. Students were to be linked directly with a mentor for individualized communication and assistance.

A primary goal was to develop forums of representative stakeholders to share the school vision. Parents and other constituencies were to be coached to expect the highest achievement levels from all students. This was to be accomplished through the utilization of sessions focused on raising expectations, the comprehension of curricular changes and strategies for student assessment, and the knowledge of skills and competencies for the 21st century. Specifically, the training content was to include Sizer’s Relearning and the Coalition of Essential Schools (Prospectus, 1988),
Goodlad and school restructuring, innovative curricular design, and site-based management skills.

Another primary goal was the institution of the “buddy system” (Indiana 2000 Proposal) for student linkage with faculty, parents, community or business representatives throughout the student’s 4-year high school career. Activities and educational opportunities were scheduled in the evening at the high school with some sessions including student attendance.

In the area of curriculum the school’s course titles content were to be combined into broader, more general interdisciplinary topics. Some of these topics were to include multimedia presentations, team teaching, cooperative learning, small discussion groups, individual research opportunities, and laboratory experiences.

Another primary goal was to strengthen the linkage with resources by involvement of university personnel at the school site, and the extension of student learning through mentorships and job shadowing experiences.

Technology was to be updated and integrated, in support of the interdisciplinary curriculum. Some examples of updating were to include the purchase of classroom computers, teacher computers, modems, computer networks, computer labs, multimedia, use of the TV studio for newscasts, and I.H.E.T.S. capabilities for summer enrichment/educational opportunities. Additional summer educational opportunities evolved from the School Community Council review, and included some of the following:

1. Expanded business and community involvement;
2. Enhancement of computer and technology skills;
3. Enhancement of the practical and performing arts;
4. Opportunities for students to fulfill their uncompleted COMPACTs during the school year; and

5. Opportunities to participate in continuing education classes.

Yearly retreats for students were to occur for the creation of student body annual goals, with similar retreats planned for the teaching staff.

School Community Council members were to be trained in site-based management. The Council reviewed the goals for review of the vision, reviewed the fourteen goals resultant from the Performance-Based Accreditation and North Central study and, discussed implementation of strategies. Commitment

School E described a community firmly committed to restructuring, with support indicated from I.U.P.U.I. (Indiana University/Purdue extension in Indianapolis), the teachers' association, mayor, local business association, the city council and students. I.U.P.U.I. promised tuition-free education for students who completed the program; the school board promised financial support for restructuring and technological advancements and offered consultants for the provision of staff development sessions, mentoring and internship opportunities.

Three system-wide staff development programs were designed to support the implementation of the three primary components of the plan: site-based management, infusion of thinking into curricular and content areas, and student and teacher use of technology. An interwoven emphasis was to gain and share knowledge of current research on educational issues for improved decision-making on the determination of best practices. Staff development was to be intensive in the early years of the restructuring initiative with summer institutes with a “teachers teaching teachers” model using information from research and conferences on successful classroom strategies. The topics for professional growth suggested included the following:
1. Learning styles (McCarthy and Gregorc work)
2. TESA training
3. Critical Elements of Instruction (Hunter)
4. Family and Educational role (Comer)
5. Outcome-Based Education (Spady)
6. Psychosocial development and self-esteem
7. Technological advancements
8. Re-Learning principles (Sizer)
9. Cooperative teaming (Johnson and Johnson)
10. Thinking and problem-solving skills (Marzano)

The primary linkage was emphasized with middle school and the development of the individualized learning plans and advisory groups. The middle school teachers advised their students through Grade 9 which enhanced student transition to high school.

A second linkage was to post-secondary education through the provision of academic scholarships to I.U.P.U.I. and the facilitation of staff exchanges. Indiana University's national consultants were to be shared with School E for the purpose of developing alternative forms of assessment of student performance.

Evaluation

A list of critical questions were derived for the assessment of progress on School E’s primary goals and on movement toward the school vision. For program accountability the following tools were identified: norm-referenced tests, criterion referenced tests, post-secondary education monitoring of enrollment and graduation rates, annual student surveys and unstructured interviews, portfolios of student work,
parent and community surveys, administrator evaluation, and School Community Council self-evaluation. National assessment consultants were to assist in the overall evaluation process.
Appendix C

Summary of Principal Interviews
SUMMARY OF PRINCIPAL INTERVIEWS

The following information is a synopsis of information obtained from the school principal interview in the following areas, for each of the five participant schools: district changes, major restructuring changes, impact of changes on student achievement and motivation, relationship with parents and their involvement, collaborative culture, enhancers and detractors of collaboration; changes in curricular, instructional and assessment practices, major barriers in making changes in curriculum, instruction and assessment, student-centered instruction, and experiential background of principal.

SCHOOL A

School A had good district and school board support of its restructuring initiative. Financial support was also given by parents through the Parent Teacher Organization. Two different principals held leadership positions and both of them had been teachers at the school. The principal reported the three major changes that had occurred since the inception of the restructuring initiative as follows: (1) Options of a self-contained multi-age grouping; (2) Inclusion of special needs children in the regular classroom (learning-disabled, mild/moderate mentally handicapped, and emotionally handicapped); (3) The school wide CLASS project. Resultant from these changes, student attendance and motivation had improved. Students had more educational choices, and parents were more actively involved.

The principal felt that the school had become more collaborative with all of its constituencies, and mentioned the superintendent and teachers as enhancing these collaborative relationships. As detrapcting from collaborative relationships, the
principal cited size of the teaching teams, lack of a written curriculum from the school district, and teachers initiating the Class project at different times.

It was reported that teachers had made changes in how they provided instruction. They were implementing more thematic instruction and more team teaching. Teachers were using portfolios throughout the school. In support of the portfolio project, the school P.T.O. (Parent Teacher Organization) provided three-ring binders with page protectors for each student.

The principal commented that "making the best better" would be the next step in the school's restructuring journey. He stated that how to improve was at the forefront of their thinking, and that it was becoming more challenging as their locale was located in an impoverished area.

SCHOOL B

In contrast to School A and its location in an impoverished area, School B represented a school site in an upper socioeconomic locale. Initially the board had tried to stop the restructuring effort; however, that attitude changed.

The principal reported that there had been good support of the school's restructuring initiative from the district, Board, teachers and parents. He also reported that the school had been a "four star" school since the inception of the restructuring initiative, indicative that the school had been consistently improving in the areas of achievement, attendance, and discipline. This school was also scheduled to be a "Blue Ribbon" school in the state of Indiana.

The major changes since the inception of the restructuring initiative were as follows: (1) The 21st Century "school within a school" project; (2) Collaboration days built into the schedule for the purpose of teacher sharing and discussions;
(3) Four annual parent teacher conferences; and (4) School writing portfolio plan for the entire school.

School attendance has historically remained high. The showcasing of student writing projects and student selection of activities and topics to research has improved student motivation. The principal believed that the school had become more collaborative, with a variety of opportunities for teachers to discuss and reflect together. A dedicated staff, as well as the structures and opportunities, enhanced these collaborative relationships. The staff has assumed more leadership responsibilities and has become better able to manage risk-taking situations. At least three former teachers became principals either in this district or surrounding districts.

More teachers were implementing interdisciplinary, thematic units with more general connecting of reading, writing, and spelling. Writing portfolios, parent conferences, and self and peer evaluations were a part of their school’s student assessment practices. Rubrics and narratives were also used as part of their evaluational processes. The commitment and dedication of staff members enhanced and inspired these changes, as well as the all school Improvement Council. This Council was committed to school improvement and responsible for funding, resources, and long-range plans.

SCHOOL C

At the beginning of the restructuring initiative there was some tension and micromanaging; however, there were changes in Board membership with increasing support of the restructuring initiative. At School C there were three different principals during the restructuring years. The major changes that had occurred since the inception of the restructuring initiative as reported by the principal were as
follows: (1) Site-based management; (2) The teaming concept (with shared planning, interdisciplinary instruction and parent conferences); (3) An interdisciplinary approach.

The impact of these changes has transformed into additional time spent on transitioning students, better preparing students for standardized testing, increased communicating about students, and stronger linkages among teachers responsible for different curricular areas. The school climate has also been positively affected.

The principal noted that there was increased collaboration which affected the curriculum, bonding among teachers and increasing trust, which impacted student achievement. The phone communication with parents has become extensive, and there is "a growing parent confidence in the school." The principal had as one professional goal to work to establish a collaborative school culture. Teachers were highly committed and involved; however, the principal did not attribute all of these changes to the Indiana 2000 grant.

Teachers made changes in math instruction by including manipulatives, using literature with thematic instruction, attending conferences, and returning to share conference content with the staff. The language arts teachers were completing work on student portfolios, with the inclusion of peer editing and conferencing. The assessment of each student's strengths by advisory teachers was also being completed.

The principal felt the school had become more student-centered as they spent more time in interactions with students, as well as personalizing student instruction. The principal perceived they could evolve into a quality school. She felt her responsibility to be the instructional leader with the active involvement of the
assistant principal. The principal felt assessment was an area for future focus. This should include a review of the students' standardized test results.

SCHOOL D

District support of the restructuring effort at this high school were good. The three major changes reported by the principal since the inception of the restructuring initiative included the following: (1) A cultural change based on the concept of "Learning for all"; (2) A governance change in structure to site-based decision-making; (3) The growth of parent and community involvement; and (4) Interdisciplinary/thematic instruction.

The principal reported positive changes in student achievement, motivation and attendance. As the teaching staff shifted from departmentalization, teachers had more opportunities to dialogue as they participated in staff development activities. The principal became envisioned as a partner to goal accomplishment, seeking ways to develop the leadership of others, both teachers and parents.

The principal reported the school has become more collaborative because it was a model were striving to work toward. The collective commitment of the teachers was amazing to observe." He believed he had empowered the teachers to effect change. The principal felt there was more cooperative learning, use of different forms of evaluation in the English Department, and that the school had become more student-centered. He believed a solid foundation existed for significant change to occur. Currently, the school was at a 6-year juncture in their restructuring journey, and they should continue to progress. He felt the staff had learned how to agree and disagree, and when disagreement did occur, they could focus on school goals.
SCHOOL E

An interview was held with both the former and current principal.

This district had a very supportive superintendent who facilitated motivating teacher activities, such as releasing teachers to write grants during school, hours. He provided stipends for summer seminars and made contacts with consultants. During the years of restructuring, a very stable teaching faculty was at the school.

The major changes that have occurred since the inception of the restructuring initiative have included the following: (1) Block scheduling; (2) A shared decision-making model for more informed decision-making, including the utilization of a school-community council; and (3) Instructional technology.

As the result of these changes, students appeared to be more motivated and there was an increased number of students enrolling in higher education. There have been no major increases in achievement. There was more dialogue between teachers, presenting/sharing with each other, and a greater degree of trust among faculty members. Teachers were utilizing their room phones to make contacts with parents, and creating opportunities that extended appreciation to parents for their supportive role in education.

Undoubtedly, the school had become more collaborative under the leadership of the former principal who had to make a real shift in his thinking, as well as the superintendent’s thinking. Staff commitment to changing instructional methods had revitalized them. The more collaborative they became, the more time they needed for future work.

Changes in assessment included exhibitions and student projects with oral presentations. Their next step in their restructuring journey was to focus on the
improvement of standardized test performance, to reflect on what students should learn, and to ensure teachers were using this information.
Appendix D

Teacher Questionnaire
"INDIANA 2000"

TEACHER QUESTIONNAIRE

SCHOOL:

INSTRUCTIONS:

ITEMS 1-35: Report on the frequency of behaviors observed in your school.

ITEMS 36-50: Report on how frequently you personally engage in the educational practices.

ITEMS 51-60: Specific directions precede the questions.

These instructions are repeated in the questionnaire.

Do not put your name anywhere on this document.
**Direction:** Think about the whole staff and report on how teachers here typically behave. How frequently is this behavior observed in your school at the current time? Please (✓) below.

<table>
<thead>
<tr>
<th></th>
<th>Seen Consistently</th>
<th>Frequently</th>
<th>Seldom</th>
<th>Never</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers meet with their peers to discuss new instructional ideas.</td>
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<tr>
<td>2. Teachers share information with colleagues from inservices.</td>
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<td>3. Teachers observe colleagues teach to improve each other's teaching.</td>
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<td>4. Teachers work with other teachers to address and solve individual student academic problems.</td>
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<tr>
<td>5. Teachers rely only on their own individual resources to solve student problems.</td>
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<tr>
<td>6. Teachers work with other teachers to address and solve schoolwide instructional/achievement problems.</td>
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<tr>
<td>7. Teachers demonstrate instructional techniques for colleagues.</td>
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<tr>
<td>8. When teachers use their learnings from inservice training, they usually do this without consulting others.</td>
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<td>9. Teachers collectively (schoolwide) make decisions to change instructional practices based on relevant, supportive knowledge.</td>
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<td>10. Teachers collectively (schoolwide) implement strategies to support changes in instructional practices.</td>
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<td>11. Teachers utilize this school's teacher resources/expertise for inservice content and delivery.</td>
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</table>
**Direction:** How frequently is this behavior observed in your school at the current time? Please check (✓) below.

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<tbody>
<tr>
<td></td>
<td>Seen consistently</td>
<td>Frequently</td>
<td>Seldom</td>
<td>Never</td>
<td>Not Applicable</td>
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<tr>
<td>12. Teachers keep to themselves after school and during planning periods.</td>
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<td>13. Teachers try hard to share their classroom and student success stories with others.</td>
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<td>14. Teachers, as well as the principal, lead staff meetings.</td>
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<td>15. Teachers initiate ideas for staff meeting agendas.</td>
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<td>16. The principal partners with teachers to provide feedback and constructive observation data.</td>
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<tr>
<td>17. You often see the principal engaged in informal, two-way discussions with teachers centered around curriculum, assessment and instruction issues.</td>
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<tr>
<td>18. Teachers, as well as the principal, assume leadership roles at this school.</td>
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<td>19. The principal actively participates with teachers in school inservices to support and assist with curricular/instructional changes.</td>
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<td>20. Teachers are recognized by the principal for leadership activities.</td>
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<tr>
<td>21. The principal does not use teacher input when planning staff meetings.</td>
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<td>22. The principal independently plans staff development activities.</td>
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**Direction:** How frequently is this behavior observed in your school at the current time? Please check (✓) below.

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<tbody>
<tr>
<td>Seen consistently</td>
<td>Frequently</td>
<td>Seldom</td>
<td>Never</td>
<td>Not Applicable</td>
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</table>

23. Teachers and the principal join together to share responsibility for the quality of students' achievements. ( ) ( ) ( ) ( ) ( )

24. Teachers collect and analyze data to inform staff and administration of best classroom practices. ( ) ( ) ( ) ( ) ( )

25. Teachers and the principal analyze information on school goals and progress for distribution to parents. ( ) ( ) ( ) ( ) ( )

26. Parents can count on frequent communications from teachers to describe and reinforce student learning. ( ) ( ) ( ) ( ) ( )

27. You see many parents assisting in our classrooms. ( ) ( ) ( ) ( ) ( )

28. Parents freely and frequently contribute ideas to help teachers and improve student learning. ( ) ( ) ( ) ( ) ( )

29. Parents contribute ideas to assist teachers in improving the curriculum. ( ) ( ) ( ) ( ) ( )

30. Parents are utilized as instructional resources by teachers to enrich the curriculum and extend student learning. ( ) ( ) ( ) ( ) ( )

31. Parents are encouraged by teachers to suggest ideas to improve student learning. ( ) ( ) ( ) ( ) ( )

32. Our parents get rich and frequent information from the school about relevant, community resources and activities. ( ) ( ) ( ) ( ) ( )
Direction: How frequently is this behavior observed in your school at the current time? Please check (✓) below.

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<th>Key:</th>
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<td>Seen Consistently</td>
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<tr>
<td>Frequently</td>
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<td>Seldom</td>
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</table>

33. Parents work with teachers and the principal to improve this school for all children.

34. Parents who get involved can count on recognition from the teachers and the principal in our school.

35. Parents participate with teachers and the principal in school professional development activities.
**Direction:** How frequently do you **personally** engage in the following practices? Please check (√) below.

<table>
<thead>
<tr>
<th>Key:</th>
<th>Consistently</th>
<th>Frequently</th>
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<td>1</td>
<td>0</td>
<td>NA</td>
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</table>

36. Students provide ideas to improve classroom instruction. ( ) ( ) ( ) ( ) ( )
37. Students have opportunities to participate in classroom decisions. ( ) ( ) ( ) ( ) ( )
38. Students are provided with choices in the content of studies. ( ) ( ) ( ) ( ) ( )
39. Teachers, independently of students, make modifications in curricular content. ( ) ( ) ( ) ( ) ( )
40. Students are provided with choices in the sequence of studies. ( ) ( ) ( ) ( ) ( )
41. Teachers, independently of students, make modifications in curricular sequence. ( ) ( ) ( ) ( ) ( )
42. Students frame questions and issues for analysis and problem-solving. ( ) ( ) ( ) ( ) ( )
43. Students discuss their progress with teachers in individual conferences to improve their learning. ( ) ( ) ( ) ( ) ( )
44. Students participate in parent-teacher conferences to improve their learning. ( ) ( ) ( ) ( ) ( )
45. Students are allowed to request additional opportunities to demonstrate mastery of material. ( ) ( ) ( ) ( ) ( )
46. Students are allowed opportunities to suggest strategies for their academic improvement. ( ) ( ) ( ) ( ) ( )
47. Students and teachers jointly discuss and choose strategies for student academic improvement. ( ) ( ) ( ) ( ) ( )
**Direction:** How frequently do you *personally* engage in the following practices? Please check (√) below.

<table>
<thead>
<tr>
<th>Key:</th>
<th>Consistently (3)</th>
<th>Frequently (2)</th>
<th>Seldom (1)</th>
<th>Never (0)</th>
<th>Not Applicable (NA)</th>
</tr>
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</table>

48. Students are allowed to choose an assessment method from multiple forms of exhibition. (Examples: portfolios, projects, oral demonstrations, hands-on demonstrations etc.)

49. Students participate in the evaluation of their long term projects or products.

50. Students evaluate their work using a checklist or criteria sheet.
Item # 51.

Direction: Check (✓) the three most significant factors enhancing your school's ability to work together as a team.

_____ principal leadership
_____ principal expectation of teamwork
_____ teacher leadership opportunities
_____ staff development
_____ central office leadership/support
_____ opportunities for constructive professional dialogue during the school day
_____ staff commitment to school vision
_____ staff ownership of the change process
_____ principal and teacher sharing of authority
_____ site-based decision making
_____ staff belief in teamwork
_____ outside facilitators
_____ school internal communications
Item # 52.

**Direction:** Check (✓) the three most significant factors that have **detracted** from your school’s ability to work together as a team.

- ______ insufficient time for interaction
- ______ lack of “structured opportunities” to promote interaction
- ______ insufficient staff development in group dynamics and teamwork skills
- ______ lack of principal support
- ______ lack of staff belief in teamwork
- ______ changes in leadership at the school site
- ______ principal difficulty in managing internal conflicts
- ______ teacher difficulty in managing internal conflicts
- ______ changes in leadership at the district level
- ______ lack of teacher teamwork skills
- ______ changes in teaching staff
- ______ inadequate development and support of teacher leadership
- ______ partial staff involvement in the restructuring initiative
Item # 53.

**Direction:** Check (√) the three most significant factors **enhancing** your ability to involve students in the educational process in your classroom.

- ______ opportunities for transfer of skills from inservices to the classroom setting
- ______ adequate time to practice new skills
- ______ understanding of the principles of learner-centered instruction
- ______ principal leadership and support
- ______ opportunities to discuss instructional changes with colleagues
- ______ belief that learner centered instruction improves student learning
- ______ belief that learner centered instruction improves student responsibility
- ______ assistance and support from colleagues
- ______ assistance and support of curricular specialists
- ______ “risk free” environment to make changes
- ______ feedback from principal on classroom teaching
- ______ feedback from colleagues on classroom teaching
- ______ positive feedback from students
- ______ student achievement gains from initial phases of restructuring effort
- ______ student motivational gains from initial phases of restructuring effort
- ______ staff development focused on principles of learner-centered instruction
Item # 54.

**Direction:** Check ( ) the three most significant factors that have detracted from your ability to involve students in the educational process in your classroom.

- _____ changes in principal leadership
- _____ competing demands on time
- _____ insufficient time to practice new skills
- _____ lack of sustained support for newly learned skills
- _____ insufficient feedback from principal
- _____ insufficient feedback from colleagues
- _____ lack of belief in providing students with choices
- _____ uncertainty in applying principles of learner-centered instruction
- _____ lack of opportunities to discuss instructional changes with colleagues
- _____ insufficient staff development on the principles of learner-centered instruction
- _____ incomplete understanding of the principles of learner-centered instruction

**Demographic Questions**

**Direction:** Please complete (circle) the appropriate responses to the following items, Items # 55-58):

<table>
<thead>
<tr>
<th>55. Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>56. Total number of years in the teaching profession</td>
<td>1-5</td>
<td>6-10</td>
</tr>
<tr>
<td>57. Years of employment at this restructuring school</td>
<td>1-5</td>
<td>6-10</td>
</tr>
<tr>
<td>58. Highest level of educational attainment</td>
<td>Bachelor</td>
<td>Master</td>
</tr>
</tbody>
</table>
59. List the inservices you have completed which actively involve students in the educational process.

Identify each inservice, and in a sentence or phrase briefly describe it. Examples are provided below. Use the reverse side if necessary.

1. ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

(Examples: principles of learner-centered instruction, constructivist principles, higher order thinking, cooperative learning, the involvement of students in curriculum, in instruction, in assessment, writing portfolio assessment, oral demonstrations as part of student assessment, projects as part of student assessment, etc.)
60. List the inservices you have completed which have enhanced your school's ability to work as a team:

Identify each inservice, and in a sentence or phrase briefly describe it. Examples are provided below.
Use the reverse side if necessary.

(Examples: group dynamics, consensus building, conflict resolution, management of conflict,
site-based management, communication, vision-building activities, problem-solving, etc.)

THANK YOU FOR YOUR PARTICIPATION IN THIS EDUCATIONAL RESEARCH.
Appendix E

Gender of Participants
### Gender of Participants

<table>
<thead>
<tr>
<th>School</th>
<th>Females</th>
<th>Males</th>
<th>Not Given</th>
<th>Total</th>
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</thead>
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<tr>
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<tr>
<td>C</td>
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<tr>
<td>D</td>
<td>33</td>
<td>35</td>
<td>4</td>
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</tr>
<tr>
<td>E</td>
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<td>27</td>
<td>3</td>
<td>50</td>
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</tr>
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<td>35%</td>
<td>6%</td>
<td>100%</td>
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Appendix F

Number of Years of Participant Teaching Experience
### Years of Teaching as a Profession

<table>
<thead>
<tr>
<th>School</th>
<th>1-5 yrs.</th>
<th>6-10 yrs.</th>
<th>11-15 yrs.</th>
<th>16+ yrs.</th>
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<tr>
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<td>72</td>
</tr>
<tr>
<td>E</td>
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<td>31</td>
<td>2</td>
<td>50</td>
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<tr>
<td>Total</td>
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<td>222</td>
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Appendix G

Number of Years of Teaching at Restructuring School
### Years of Employment at the Restructuring Site

<table>
<thead>
<tr>
<th>School</th>
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<th>6-10 yrs.</th>
<th>11-15 yrs.</th>
<th>16+ yrs.</th>
<th>Missing</th>
<th>Total</th>
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<tr>
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<td>11</td>
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<tr>
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<td>8</td>
<td>5</td>
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<td>50</td>
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<td><strong>23%</strong></td>
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<td><strong>100%</strong></td>
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Appendix H

Participant Level of Educational Attainment
Level of Educational Attainment

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<th>Master</th>
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<th>Doctorate</th>
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<td>19</td>
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<td>0</td>
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</tbody>
</table>

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Appendix I

Scatterplots of Collaboration and Engagement
Collaboration and Engagement of School A

collaboration

engagement
Collaboration and Engagement of School B

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Collaboration and Engagement of School D

engagement

collaboration
Collaboration and Engagement of School E
Appendix J

Informed Consent Form
I have been invited to participate in a research project entitled "Teacher Perceptions of Collaboration and Student Engagement at Six Twenty First Century Restructuring Schools in Indiana". I understand that this research is intended to study how teachers work together and teach in a restructuring school. I further understand that this project is the researcher's dissertation project.

My consent to participate in this project indicates that I will be asked to attend a one hour meeting with the researcher at my school. At this meeting I will be completing a questionnaire composed by the researcher. The questions will primarily focus on the teacher interactions in the school and my classroom teaching practices. I will also be asked questions about myself such as age, gender, level of teaching, level of educational attainment, number of years in teaching, number of years at the restructuring site, and a summary of professional development activities.

As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken, however, no compensation or treatment will be made available to me except as otherwise specified in this consent form.

One way in which I can benefit from this participation is that I will be sharing information about how I work with school stakeholders and how I teach in a restructuring school which can assist my school site in the restructuring process. I also understand that the information generated may assist other restructuring schools in the early stages of the change process.

I do understand that the data collected from my school site will be collectively referenced by a school code "letter" as part of the published dissertation. I also understand that the information collected from me is anonymous which means that my name will not appear on any papers on which this questionnaire's information is recorded, or on any coding sheet with a master list. I understand there will be no way to determine who participated in the study except by the signing of the consent form and there will be no way to determine which participant produced which data.

The original questionnaire response forms will not be shared with any administrators, districts, teachers, or the Indiana State Department of Education. The original response forms will be retained for three years in a locked file cabinet in Mrs. Kujawski's home and subsequently destroyed.

I understand that I may refuse to participate or quit at any time during the study without prejudice or penalty. If I have any questions or concerns about this study, I may contact either Dr. Van Cooley at Western Michigan at (616) 387-3891 or fax # (616) 387-3880 or Cynthia Kujawski at (219) 272-1614 or fax # (219) 272-1614. I may also contact the Chair of Human Subjects Institutional Review Board (616) 387-8293 or the Vice President for Research (616) 387-8298 with any concerns that I have. My signature below indicates that I understand the purpose and requirements of the study and that I agree to participate.

______________________________  ____________________________
Signature                        Date
BIBLIOGRAPHY


Mitchell, B. (1990). In B. Mitchell & Cunningham (Eds.), *Educational leadership and changing contexts of families, communities, and schools*. (Eighty-ninth


Newmann, F. (1991b). *Beyond common sense in educational restructuring: The issues of content and linkage.* (ERIC Document Reproduction Service No. ED 342 122)


