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School Improvement Groups Network (Project SIGN): A two-year study of a collaborative school restructuring effort at the Camp Lejeune Dependents' Schools

Gaines, Patricia Jones, Ed.D.

The University of North Carolina at Greensboro, 1992

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SCHOOL IMPROVEMENT GROUPS NETWORK (PROJECT SIGN): A TWO-YEAR STUDY OF A COLLABORATIVE SCHOOL RESTRUCTURING EFFORT AT THE CAMP LEJEUNE DEPENDENTS' SCHOOLS

by

Patricia Jones Gaines

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1992

Approved by

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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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4/6/92
Date of Acceptance by Committee

2/25/92
Date of Final Oral Examination

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---

*Moyers, B. (1989). A world of ideas. New York: Doubleday.

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GAINES, PATRICIA JONES, Ed.D. School Improvement Groups Network (Project SIGN): A Two-Year Study of a Collaborative School Restructuring Effort at the Camp Lejeune Dependents' Schools. (1992) Directed by Dr. Charles M. Achilles. 212 pp.

The purpose of this study was to describe the implementation in a school system of a collaborative, shared decision-making process, School Improvement Groups Network (SIGN). Specifically, the study explored and described the "how" elements of implementing participatory site-based management (SBM) in one school system. A related purpose was to describe and define these processes and outcomes in a manner that may help others in their pursuit of restructuring efforts.

Qualitative case study was used to describe the collegial, focused, professional inservice provided by the SIGN project. The School Improvement Groups Network (SIGN) team included a site-level administrator, several teachers, and higher education, central office and other resource persons cooperating in school improvement. Each SIGN team established a goal, "gameplans" or incremental steps, and operating procedures. Continuous feedback, evaluation, and revision of improvement plans in a collegial setting allowed ongoing and collaborative school improvement. Major, positive and lasting changes resulted. Project SIGN was extended to all Camp Lejeune Schools in the second year of the study and changed to meet emerging needs identified by the CLDS administration.

CHAPTER I

INTRODUCTION

"If you want to understand something,
try changing it." Kurt Lewin

School reform initiatives are a fact of life for educators. Some say that the reforms of the 1980's were "waves," the first wave aimed at pupils, the second at teachers, and the third at administrators and the organization of schools. The major concerns of the late 1980's and early 1990's seem to be with the ways that the school enterprise is organized, operated and led. Griffiths, Stout and Forsyth (1988) refer to a "revolution in the way schools are organized," call for a change in the relationship between teachers and administrators and recommend innovations in the preparation of education administrators (p. xiii).

The North Carolina School Board Association and the Public School Forum of North Carolina, in a briefing paper discussing North Carolina's "site-based management" legislation (Senate Bill 2 and House Bill 1510), "consider the Bill the beginning of a quiet revolution that could profoundly change and improve our method of managing schools" (1989, p. 1). They point out that "mandated, top-down reforms" have not been successful and that "voluntary, local reform programs that have the support of educators and the communities they serve hold far greater potential to create meaningful and positive long-term change" than the top-down and legislatively mandated reforms (p. 2).

Statement of the Problem

Site-based management (SBM) has been enabled in North Carolina by Senate Bill 2 (SB2). Now school personnel are faced with developing and implementing their own

district or individual school improvement plans. While some reform initiatives thus far provide ideas and answers to what must or might be done for school reform (e.g., SBM, teacher empowerment), few calls for reform tell educators why such reform seems correct or describe much about how to do it. Literature on school reform, opinion of "experts" and politicians, and some consultants offer ideas and suggestions for implementing SBM, but by 1991 there has been scant attention to research and practice-based methods that explain how to prepare for and implement SBM. Further, many initiatives for SBM in education have been fueled by massive restructuring in the 1980's by the business/economic sector as American businesses restructured to "downsize" from the merger-mania of the 1970's and 1980's and to streamline to compete with foreign enterprises that continually outperform American businesses. The ideas of "close to the customer," "stick to the knitting," etc. (Peters & Waterman, 1982) make sense to business for one reason (profits). Do these same reasons apply to education, or is education motivated by the need to seek a "professional" environment where teachers have some control (Grumet, 1989)? In a 1985 overview of SBM, Marburger stresses the importance of building-level decision making and participation in decision making by all of those concerned with the local school. David (1989) points out that SBM is based on school autonomy and a shared decision making process within the school. In a review of school restructuring, Timar (1989) says:

> In order for restructuring to succeed as a reform strategy it must change not only local bureaucratic structures and state policy environments, but also the nature and tone of the conversation about schooling. Teachers must be trained and socialized to assume different responsibilities. They must become skilled in evaluation and organizational planning. (p. 275)

Conley and Bacharach (1990) point out the differences between bureaucratic SBM with building administrators continuing to make most of the decisions and

participatory SBM that includes teachers and others in the decision making process. "The issue is not simply how to achieve school-site management but how to achieve collegial and collective management at the school level" (p. 540).

Educators need theory and practice based-models for school reform that address the unique professional school environment and respond to the "power-shift" from central office and/or state authority to site-based leadership teams. These models will provide planning structures and processes for educators to design reform plans that meet the needs of their local schools and school systems.

Statement of Purpose

The purpose of this study is to describe the implementation in a school system of a collaborative, shared decision-making process, School Improvement Groups Network (SIGN). Specifically, the study explores and describes the "how" elements of implementing participatory SBM in one school system. A related purpose is to describe and define these processes and outcomes in a manner that may help others in their pursuit of reform initiatives.

Research Questions

The overarching research question explored by this study is, "How do individuals working in schools and school systems move from bureaucratic to participatory SBM?" This research focused on questions specific to the SIGN implementation and on questions relating the actual practice to various theories. Specific questions that guided the study are:

1. What is the SIGN approach to SBM and what are its major processes and outcomes as implemented in the Camp Lejeune Dependents' Schools (CLDS) in Camp Lejeune, North Carolina?

2. How does the SIGN approach to implementing participatory SBM in a school system compare to the communication/change model proposed by Achilles and Norman (1974) and Achilles (1986)?
3. How does the SIGN approach to inservice compare to the characteristics of effective inservice suggested by Daresh and LaPlant (1984) and Daresh (1987)?
4. How does the SIGN approach to teacher empowerment/professionalization compare to the Teacher Collegial Group (TCG) approach (Keedy, 1988, 1989), Site Team approach (Joyce, et al., 1989), and the collaborative approach suggested by Grumet (1989)?
5. How does the SIGN approach to developing instructional leadership compare to ASCD's characteristics of the principal as instructional leader (1984) and Brubaker's conceptualization of instructional leadership (1985)?
6. How does the SIGN approach to the professional development of educators compare to theories of adult learning (Knowles, 1980, 1984; Mouton & Blake, 1984), situated cognition and/or cognitive apprenticeship (Brown, et al., 1989; Perkins & Salomon, 1989), and cognitive learning theory (Prestine & LeGrand, 1991)?

Conceptual Framework

Due to the complex nature of school as an organization, an investigation of school restructuring must be firmly bedded in a multi-faceted conceptual/theoretical base. This study followed and expanded upon seven models to form this base. These models include:

1. Adult Learning (Knowles, 1980, 1984; Mouton & Blake, 1984).

2. Change Process and Communication (Achilles & Norman, 1974; Achilles, 1986; Achilles, Brubaker, & Snyder, 1990).
3. Inservice Programming (Daresh, 1987; Daresh & LaPlant, 1984).
4. Professionalization of Teaching (Grumet, 1989).
5. Teacher Collegial Group or Site Team (Keedy, 1988, 1989; Joyce, et al., 1989).
6. Situated Cognition and/or Cognitive Apprenticeship (Brown, et al., 1989; Perkins and Salomon, 1989; Prestine & LeGrand, 1991).
7. Instructional Leadership (ASCD, 1984; Brubaker, 1985).

Definitions

The following definitions are provided due to their relevance to this study:

1. Change is a planned process in which an innovation is adopted or adapted by a single unit (individual, school, etc.) and then spread, or diffused, to other units where adoption/adaptation of the innovation also occurs (Achilles & Norman, 1974).
2. Shared decision-making (SDM) is participation by teachers and other stakeholders in schools in making decisions about school management and instruction that were traditionally made by central office or school site administrators.
3. SIGN (School Improvement Groups Network) is a group made up of school-site teams working collaboratively to improve education and one or more university and central-office personnel to provide support, data, and selective dissemination of information.
4. School-Site Team is a team consisting of at least one building-level administrator and three to seven teachers from the same school. Based on

the needs and the decisions of the local school, parents, students, staff members, central office personnel, or others may serve as advisory members of these teams.

5. Site is a single school within a school system.
6. Site-based goals are those goals uniquely identified by personnel within a single school as important for that school's improvement.
7. Site-based management (SBM) is management that occurs at the school site as opposed to management that occurs from the central office or state level. Site-based management may be bureaucratic (carried out by the principal acting alone) or participatory (carried out by a team made up of teachers and others in the school).

Project Outcomes

This study relied upon an active-intervention approach to research in which the researcher was also an active participant. Because of this approach, specific outcomes were established at the beginning of the study. They are summarized below:

1. The development of strategies for instructional leadership by principals.
2. Observable change in schools.
3. Demonstration of an action-oriented, involvement approach to inservice (School Improvement Groups Network, SIGN).
4. A reduction in teacher isolation and an increase in collaboration to improve instruction.

Summary of Research Design

This study is non-experimental and qualitative; its purpose is more to describe and explain a process (SIGN) and its outcomes than to seek cause-effect relationships among variables that lend themselves to manipulation or control. To the degree possible,

however, supporting quantitative data were generated and/or collected, giving this study characteristics of quasi-experimental design, similar to Campbell and Stanley (1963) design number three. The researcher used a combination of qualitative and quantitative techniques, including interview data, questionnaire results from participants, direct observations, and archival measures. To help explain results and provide guidance for future development and use, project outcomes were compared to theoretic models of change, inservice programming, adult learning, situated cognition/cognitive apprenticeship, Teacher Collegial Groups/Site Teams, and the professionalization of teaching.

For teachers in the study, treatment consisted of the inservice and participation in collegial work groups to practice shared decision-making. For administrators, the treatment was the inservice and participation in group processes to develop skill in instructional leadership.

Internal validity (how well research findings represent reality) was addressed through triangulation; member checks; multiple data sources; and long-term, on-site, or repeated participatory research. The researcher also acknowledged and clarified her biases to increase the validity of the study (Merriam, 1988).

Reliability, or replicability, in the traditional sense depends on a static and unchanging reality. Lincoln and Guba (1985, cited in Merriam, 1988) suggest that "dependability" or "consistency" are more useful terms in qualitative research and mean that consumers agree that the results make sense, given the data available. For this study, issues of dependability or consistency were ensured by a thorough explanation of assumptions and theories underlying the study; the context of the study; and multiple methods of data collection.

Significance of the Study

Calls for school improvement seem to occur with the regularity of daily newspaper. From the publication of A Nation at Risk by the National Commission on Excellence in Education in 1983 until 1985, at least 30 major reports on educational reform had appeared in print (Owens, 1987). However, Owens pointed out that none of these reports, either collectively or singularly, resulted in large-scale change in schooling. He further noted that efforts to implement the suggestions contained in these reports generally followed the path of traditional bureaucratic means that more or less attempted to effect change through mandate.

Barth (1986) recognized that effective schools research, one major conception of school improvement, tended to lead to a "list logic." Almost every area of schooling was subject to a list of characteristics that defined effectiveness. According to Barth, this approach to reform did not generate feelings of motivation and renewed energy on the part of educators. Instead, it led to feelings of "oppression, guilt, and anger" (p. 187) because it forced educators into a state of dissonance by requiring them to keep "two sets of books" (p. 188). One set contained the expectations of others (prescribed curricula, minimum competencies, lists of criteria) while the other set contained their own visions of what comprised good schooling. This situation led Barth to define school improvement as "an effort to determine and provide, from within and without, conditions under which adults and youngsters who inhabit schools will promote and sustain learning among themselves" (p. 190). Barth also poses the question, "Under what conditions will principal and student and teacher become serious, committed, sustained, lifelong, cooperative learners?" (p. 190).

Related to these calls for school reform is the recognition by researchers in higher education of the need for practice based research in programs that prepare school

leaders. In writing about the preparation of school leaders, Griffiths, Stout, and Forsyth (1988) proposed that applied research be used to teach students both qualitative and quantitative methods as well as decision-making techniques. The National Policy Board for Educational Administration (1989) suggested "that long term, formal relationships be established between universities and school districts to create partnerships for clinical study, field residency and applied research" (p. 6). According to Achilles (1989, 1990) and Achilles and DuVall (1989), a major research focus in education should be on the practice of administration. As Achilles pointed out, the two characteristics of a discipline, "a body of knowledge and its own method of inquiry," are "questionable for education administration" (p. 3). Research that focuses on problems encountered in administering schools may well be the solution both to developing the discipline of school administration and to disciplining the development of school reform.

Calls for reform continue, eloquent evidence that whatever change has occurred has not been satisfactory to many of the reformers in our society. This study considers the question raised by Barth (1986) and explores the "how" element in a process of reform that seeks to create a community of learners within schools where knowledge workers "pose their own questions and enlist others as resources to help answer them" (p. 191).

Limitations and Delimitations of the Study

This study was delimited to schools in the Camp Lejeune Dependents' Schools and, in the first year, to teams from four schools in the system. In the second year of the study, all eight schools in the system were involved.

Limitations of this study are those that relate generally to action research in a real school setting with a participant researcher. These limitations are discussed further in Chapter III, the methodology section of this paper. While the composition of

the teams was specified (at least one building-level administrator and three to seven teachers), the manner in which members were identified was not. This was done in keeping with the effort of the researchers not to impose bureaucratic constraints that would directly conflict with the goals of SBM and shared-decision making. In the second year of the study, the number of teams grew from four to eight and the composition of the teams underwent some changes. Some teacher and administrator participants changed. This occurred for a variety of reasons (personnel leaving the system, new personnel on the teams, reassignment of personnel, new team structures of guidelines determined at the school site). Teams also changed slightly due to the inclusion of new categories of members, such as non-professional staff, parents, or others in advisory capacities.

Since the researcher helped develop the proposal for this study and was also a participant in both years of this study, the issue of research bias must be addressed. As Merriam (1988) points out, participant observers must be aware not only of the effects of this situation on themselves but also of the possible effects of this participation on those being studied. The researcher must acknowledge that his/her presence may change what is being studied. In cases where the participant observer has successfully gained entry to and acceptance by the group being studied, the researcher must continue to be aware of the possibility of these effects and the ethical demands that can be created. Subjects may accept the observer completely and reveal information that they do not wish to share with "outsiders." Researchers may witness situations that ethically require intervention but where that intervention may compromise the study. For this study, the primary means of dealing with researcher bias were acknowledging the possibility of bias, identifying possible instances of bias, and by making all participants in the study aware of the dual role played by the researcher. Participants were provided

with feedback about the researcher's role throughout the study, and appropriate participants were consulted about issues of bias if they arose.

Another limitation of this study relates to some substantial changes in both the school system and the entire community during the second year. A new school was opened at the start of the second year of the study. This necessitated personnel and student changes in addition to those commonly associated with a military school system. In addition, the outbreak of the Gulf War (August 2, 1990 - April 11, 1991) created unusual and unanticipated challenges to this military community. There is no way to determine the effect of these events on this study, but observation and common sense indicate that disruptions resulted from these events.

All of these factors contributed to a situation in which data collected from participants must be interpreted in a holistic way. It was often impossible to gain both pre- and post-information from participants. Participants who began the study as a member of one school team may have been a member of a different school team in the second year. New teams as well as new team members were added in the second year. Finally, some of the school teams began to assume their own distinctive identities in the second year and, true to the original goals of the project, they became self-directed, and therefore, more difficult to assess. To reduce the impact of these changes, the project considered teams, groups, and changes in schools, programs, processes and outcomes, and secondarily focused on individuals or individual changes.

Organization of the Study

Chapter One presents a general introduction that informs the reader of the problem of implementing school reform, the purpose of the study, and the research questions that guided the study. The conceptual framework that is the basis of the study is explained. Key terms are defined and project outcomes are stated. The significance of

the study to research in education administration is given, along with limitations and delimitations of the study.

Chapter Two presents a review of pertinent literature on the history of school organization in the United States in order to set the stage for the following review of school reform initiatives (e.g., participatory SBM) that emerged in the 1980's. The literature review also details research on the theoretic bases of the study as follows: professional inservice; situated cognition; adult learning; communication and change; professionalization of teaching; and instructional leadership.

Chapter Three describes the research design and methods used for this study and presents the purpose of the study and the research questions. Included in Chapter Three is a statement of outcomes and data sources; a description of instruments and data collection procedures; an explanation of qualitative data analysis components (case determination, subject selection); a discussion of operating details and structure for the SIGN process; details of the research design; and a discussion of reliability and validity issues.

Chapter Four provides details of data analysis and the results of the study. The context and history for the school system and the SIGN project are given. Topical data are presented that compare and contrast the two years of the SIGN process to the theoretic models upon which it is based. Chapter Four also includes a brief analysis of the general findings that emerged from the study.

Chapter Five summarizes the SIGN study and presents conclusions that can be drawn from the results. Implications and recommendations for further study are suggested.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Just as a popular television game show reminds the players that their "answers must be in the form of a question," education researchers formulate their research questions from the "answers" to previous research questions. Thus, one basis for scholarly inquiry is a review of previous research and literature exploring issues related to the topic of the study. This review also provides a base against which to compare the results of the current study.

Research in educational administration falls primarily into three categories that may be differentiated by form, content, and the professional orientation of the authors. Professional-normative literature consists of exchanges between and among practitioners in which actual problems and possible solutions are explored. This type of literature often appears in the journals of professional associations of school administrators and supervisors and may rely marginally on research. Professional-normative literature provides a "wide-angle" view of a topic or issue (Boyan, 1982).

Scholarly-normative literature is produced primarily by professors of educational administration, both those who train practitioners and those who are involved in research. These groups frequently present the literature in the form of special-purpose reports or essays that are of practical value. Literature of this kind is more likely to appear in textbooks or in the Educational Resources Information Center (ERIC) than in professional journals (Boyan, 1982).

Since a relatively small percentage of professors of educational administration regularly engage in an ongoing process of disciplined inquiry and scholarly publication, the bulk of scholarly-descriptive research can be attributed to dissertations by doctoral candidates in educational administration. This research can be found in Dissertation Abstracts, some journals and monographs. Professors contribute to this category of research primarily by directing the dissertations of their students. As Boyan (1982) points out, the applicability of scholarly descriptive research to other studies can be limited because its increasing specialization leads to fragmentation. Achilles (1990) critiques the state of research in education administration and reports findings by McCarthy, et al (1988):

> . . .that about 60% of EA professors directed doctoral research but that EA professors on average spent about 12% of their time on research (compared to 18% in other fields) and only 24% reported producing/editing, co-authoring or editing as many as 10 articles/papers/reports/books/chapters in a five-year period (p. 2).

According to Achilles, McCarthy's results bear out earlier studies that found professors of education administration actually doing very little research but directing a great deal of research by graduate students [Campbell & Newell (1973); Campbell (1964)]. In exploring approaches to remedy this situation, Achilles suggests that research done as part of a preparation program be focused on significant problems of practice in school administration. "The outcome might be decision oriented and evaluative in nature -- site-specific study and solution with only a moderate concern for generalizability" (Achilles, 1990, p. 3).

In spite of, or because of, the limitations of each area of literature available in education administration, scholarly inquiry dictates the use of all three categories of literature. By viewing the "big picture" provided by professional-normative

literature, seeking specific details provided by scholarly-descriptive studies, and considering the practical applications explored in scholarly-normative works, the present study presents an holistic view of school restructuring through participatory shared decision-making.

Purpose of the Literature Review

This literature review is designed to explore the history of school organization in the United States and to consider current reforms that focus on school improvement through organizational restructuring. Specifically, restructuring literature related to site-based management (SBM) approaches that rely on shared-decision making, teacher empowerment and professionalism, and instructional leadership are reviewed. This review also explores the relationship between restructuring efforts and professional inservice and adult learning. The concept of situated cognition and its application as an inservice strategy to drive educational change are presented. Finally, literature related to organizational change and communication within the context of school restructuring efforts is considered.

School Organization in the United States: A Brief History

To place the reader in the "big picture" of schooling, this area of the literature review looks generally and historically at the organization of schools in the United States. Owens (1987) classifies educational organizations in the United States during this century according to three different eras, with the beginning of a fourth era by the middle of the 1980's. The classical era relied upon "scientific management" and is generally recognized to have begun in the early 1900's and to have lasted approximately 25 years (1910-1935). This era is characterized by hierarchical bureaucratic structures with power originating at the top levels of the organization and moving in a "rational," systematic way through the lower levels. Workers were seen as passive and

not capable of initiating change. Early theorists in the classical era were Frederick Taylor, an American engineer, Henri Fayol, a French industrialist, and Max Weber, a German university professor (Daniels & Spiker, 1987). School superintendents quickly borrowed from business and industry and put scientific management into practice in American schools. Schools were thought of as factories and concepts and values of classical theory, such as the flow of authority downward, the establishment of strict routines and tight control, were the basis for management. Elements of the classical era remain today as powerful forces in some areas of school organization as well as in some current reform efforts (Owens, 1987).

The human relations movement in school organization was predominant between 1935 to 1950. Motivated by a concern for greater production efficiency, Western Electric and the National Research Council conducted experiments focusing on the psychological and social aspects of organizations. The manager's task was to boost employees' morale by making them feel useful and important. Keeping workers informed and involving them in routine decisions were strategies used to stimulate grater involvement and productivity (Daniels & Spiker, 1987). Owens (1987) points out that the majority of school administrators maintained their practices of classical organizational control during this period, while school supervisors moved toward the human relations values and practices involving participation, communication, and less emphasis on power relationships. This may have been a major difference in the attitudes of line and staff position incumbents and a beginning move toward the professionalization of teaching.

During the organizational behavior era, roughly between 1950 and 1975, theorists attempted to combine the values and practices of the highly bureaucratic classical era with the human behavior values and practices of the human relations era.

The organizational behavior movement drew upon models from the social sciences and attempted "to describe the systematic relationships between organizational characteristics on the one hand and human characteristics on the other hand that would describe and explain organizational behavior" (Owens, p. 32). During this time, school systems, as well as other organizations, began to be viewed as social systems (Getzels & Guba, 1957) and new concepts related to the organizational behavior movement began to exert an influence on educational administration. Topics such as organizational change, climate, leadership, motivation, and decision-making joined the more traditional subjects of budget, finance, law, and facilities in the literature on school administration (Owens, 1987).

Griffiths (1988) traces the efforts of writers to develop administrative theory in education, placing the "theory movement" roughly between 1946 and 1974. During this time, four theories about education administration were developed -- social systems, decision-making, role, and mutual problem solving. The theory movement changed the language of administration. It attracted people from disciplines other than administration and from other professions than education to write and talk about the topic of education administration. Griffiths credits the theory movement with the movement of education administration from "the status of a practical art toward, if not altogether to, the status of an academic discipline" (p. 31). Although there is today interest in and movement toward a phenomenological approach to organizations and away from the theory movement, elements of the movement continue to play a role in organizational thought (Griffiths, 1988).

In the mid-1980's the human resources management model of organizational thought emerged. Growing from work that recognized the impact of "middle-range theories" in addition to crucial overarching theories of organizational behavior, human

resources management considered the distinctive features of educational organizations rather than simply applying concepts borrowed from business, industry, or the social sciences (Owens, 1987). Educational organizations were now recognized as loosely coupled, dual systems. They were loosely coupled in that schools in a system and classrooms within a school were not structured in a tight hierarchy and often enjoyed a great deal of autonomy. They were dual systems in that classroom instruction and the curriculum, the basic activities and purposes of the school, often were not directly supervised or controlled by the school administrators while administrators did control time, resources, student assignments, and grouping, thereby indirectly exerting influence on instruction. Peters and Austin (1985) refer to this simultaneous loose/tight relationship found in successful schools analyzed by Sara Lawrence Lightfoot in her study of "good high schools." Teachers in these schools have independence and autonomy but are expected to demonstrate a high level of commitment to the goals of the school and the chief administrator. The chief administrator, in turn, "serves as buffer" (p. 482) between the teachers and the central authority.

In the human resources management era educators also began to recognize the strong role of organizational culture in school operations and instruction [Peters & Waterman (1982); Kanter (1983); Owens, (1987)]. Sarason (1971) pointed out the necessity of understanding the unique culture of schools if attempts at school reform were to be successful. Smircich (1983), cited by Griffiths (1988) stated:

> Despite the very real differences in research interest and purpose represented here, whether one treats culture as a background factor, an organizational variable, or as a metaphor for conceptualizing organization, the idea of culture focuses attention on the expressive, nonrational qualities of the experience of organization. It legitimates attention to the subjective, interpretive aspects of organizational life. (p. 355)

School Reform

Calls for school reform fill professional journals as well as the daily news media. Words such as restructuring, empowerment, site-based management, etc., have entered the field as a part of the language of education. Some writers emphasize the need for educational change by using the word "revolution" (Griffiths, Stout, & Forsyth, 1988; NC Senate Bill 2, House Bill 1510), or "reinvention" (Schlechty, 1990) instead of mere reform or restructuring.

As politicians look for ways in which schools can be reformed, the idea of returning control to the local district and to the local school has become popular. In this era, as in others, the political agenda often dictates the "education" research agenda and researchers have rushed to advocate and study the phenomenon of "restructuring" applied to education. This would be accompanied by organizational change in that the usual bureaucratic practice of school management with principals making most decisions would become a process in which teachers and other staff share in planning and decision making (Conley & Bacharach, 1990; Timar, 1989; David, 1989; Marburger, 1985).

One source of teacher involvement in decision making has been in the area of curriculum and instruction. Teacher Collegial Groups (TCGs) have been developed and used as a collegial process to improve instruction (Keedy, 1988, 1989). These groups provide a setting for collaboration among public school teachers. College/university contacts provide improvement models, assist in implementing and adapting the models, disseminate findings, and incorporate new ideas from practice into their preparation programs. Teachers identify problem areas and provide mutual support and advice as they work collaboratively to devise and implement improvement plans (Keedy, 1988). In this model teachers are seen as active problem solvers and decision makers. The focus is a professional versus bureaucratic model for school improvement in the area of

instruction. TCGs meet the guidelines suggested by Daresh and LaPlant (1984) for effective inservice education. The role of the administrator in TCGs is largely supportive and not participatory, while the teacher's role is to make decisions that primarily effect his/her own classroom.

The facilitative role of the university contact person in TCGs is a response to the growing recognition of the need to link research and practice in education and to get ideas generated from this linkage into preparation programs for school administrators. Achilles (1973) has been a long-time advocate for university field efforts that focus on "real" problems in schools. In a paper discussing weaknesses in education administration, he states: "Changes in research and in preparation programs will require an important cooperative role between/among various 'actors' in the web of education. The study of problems of practice should help refine preparation programs" (1990, p. 9). There is clearly a need to strengthen communication and interaction between/among school and university personnel to the mutual benefit of both. The focus of the interaction should be on "real" problems encountered in schools and the result of the interaction should be ongoing, field-based research that informs not only school practices but also university preparation programs. TCGs are a start in this direction but more collaborative, practice-based research is needed.

Keedy (1989) acknowledges that "teachers need more opportunities to interact with each other and with administrators to help to make their work environment (sic) more collegial" (p. 1). Little and Bird (1987) emphasize the idea of teachers and administrators working collaboratively and point out that in successful schools "teachers and others work closely together as colleagues and subscribe to a norm of continuous improvement" (p. 118).

Joyce, Murphy, Showers, and Murphy (1989) implemented a school renewal project that restructured the workplace, forming collegial study groups made up of teachers and administrators. These groups engaged in goal setting and regular training on models of teaching. Consultants provided most of the training during the first two years but also assisted in developing a district cadre of teachers and administrators trained to take over the functions of the consultants. Results after two years were not unlike the Berman/McLaughlin findings in the Rand studies of "Federal Programs Supporting Educational Change" (1975, 1977) and indicate that while the "administrators' teaching skill and experience played an important role, more important was their 'cheerleading' function and their willingness to 'carry the flag' prominently" (p. 74). In this collegial project, administrators had to remain very active in leading the unified school improvement effort in order to maintain "collective activity" (p. 74). In this model, teachers and administrators worked collaboratively but the decision-making arena was again primarily instruction and teaching. A study of teacher involvement in school activities by High and Achilles (1988) suggests that the majority of teachers (58%) do want to be involved in school decisions, especially decisions that are related to their primary function of teaching. Beyond the teaching area, however, differences exist in the kinds of decisions teachers want to be involved in. High and Achilles recommend that school principals spend some time determining the decision areas in which teachers in their schools wish to participate.

In a review of quality of work life indicators found in social science research, Louis and Smith (1989) list, among others, the following criteria that are consistent with educational reform literature: "respect from relevant adults, participation in decision-making, frequent and stimulating professional interaction among peers, and the opportunity to experiment" (p. 4). Lezotte (1989) calls for a "collaborative, school-

based, school improvement team" consisting of teachers, principals, and others from both inside and outside the school. Such groups have the potential to encourage the teacher as decision maker (Keedy, 1988, 1989), promote professionalization (Joyce, et al., 1989), flatten out the bureaucratic structure, and meet the guidelines for effective inservice (Daresh, 1987).

As school reform has progressed, at least two major directions have emerged with respect to the roles of teachers and administrators working collaboratively to lead schools. Principals, as administrators, are called on to function not only as school managers but also as instructional leaders. Teachers, on the other hand, are beginning to participate in school management decisions, such as personnel, scheduling and budgeting as well as in decisions about instruction and teaching. In addition, teachers and school administrators are seeking to exercise more site-based control of schools as opposed to district or state control. These changes, however, will not occur successfully unless school workers receive appropriate training and experience with their new roles and expectations and unless, according to Sarason (1971), the existing power structure, the central office, lets its happen.

The Professionalization of Teaching

Perhaps no area of school reform holds as much promise for substantial and lasting change than the area of professionalizing teaching. As the human relations movement emerged in the mid-1930's, supervisors began to de-emphasize power relationships in schools and to recognize teachers in a more professional role. School administrators, however, continued practices consistent with classical organizational control (Owens, 1987). Throughout the following years of organizational development in schools and throughout a series of school reform initiatives, the status of teachers within the school organization and the attitude of administrators toward teachers have

been slow to change. Conley and Bacharach (1990) point out that "-- the first obstacle to implementing school-site management is not structural but cognitive. The success of a school-site management program will depend first and foremost on how administrators view teachers" (p. 540). Conley and Bacharach stress that in order for administrators to engage in participatory structures with teachers they must: view teachers as competent decision-makers; believe that teaching activities are not routine and that they do require flexibility; and feel that teachers should be in control of pedagogical knowledge. If administrators "believe that the relationships between teachers and students lack variation," they will "tend to manage and standardize teacher's work bureaucratically" (p. 541).

Grumet (1989) credits efforts to standardize teaching, testing, and curricula and the male-dominated power structures that foster passivity among female teachers with contributing to teacher isolation and a non-professional setting for teachers. She states:

> As the individual intentionality and creativity of teaching have been appropriated by centralized administration, state testing agencies, and book publishers, teachers have remained isolated, confined in their classrooms, without the compensation of determining the character of their work with the children they teach. (p. 21)

Grumet, like other writers in education reform who take a broad view of curriculum, Brubaker (1982, 1985) for example, recognizes that what occurs in classrooms is intimately related to what occurs in the rest of the school and in the community. She suggests that teachers need to collaborate, to get together and decide "what they need to do to improve the learning environment, politics, and curriculum of their school" (p. 20). Unlike Sarason, Grumet does not believe that teacher empowerment requires additional training for teachers in leadership and group processes because teachers already possess

these skills. In schools as they exist today, however, they are seldom allowed to use them.

Keedy (1989, 1990, 1991) also recognizes the need to reduce teacher isolation by establishing programs that encourage collaboration, shared decisions, and a flattened bureaucratic structure. Teacher Collegial Groups (TCGs) established by Keedy provide this professional environment where teachers, facilitated by principals, work together to develop and implement classroom improvement plans. In the TCG format, the focus is on the individual classroom and the principal's role is facilitative, rather than participatory.

In A Place Called School (1984), Goodlad examines "the rhetoric and reality" (p. 193) of teacher professionalism. He concludes that while most teachers choose teaching because of inherent professional values, they find that the reality of teaching offers them little opportunity for professional growth. The reality of teaching often involves little professional autonomy, a flat salary structure, a loss in prestige and status, and increasing student heterogeneity that makes teaching students more difficult at a time when schools are expected to solve increasing social problems. Goodlad observes that unless these conditions are addressed,current initiatives for increased teacher accountability for student outcomes are not likely to succeed. One of his suggested solutions is to follow the Japanese model and reduce teaching time to only 15 to 20 hours per week. Concurrent with this change, he suggests the establishment of "school-based programs of curricular and instructional improvement shared by the entire staff" (p. 194).

If, as Conley and Bacharach suggest, the issue of professionalizing teaching rests on how administrators view teachers, it is helpful to examine the relationship between administrators and teachers in schools. Dunlap and Goldman (1991) examine this

relationship from the perspective of how power is structured (vertical, horizontal) and exercised (top-down, shared) in today's schools. They point out that reform movements that call for school improvement through increased professionalism and collaboration have created tension between teachers and administrators as they "compete" for power. They argue that facilitative power is a more useful concept in schools and point to practices in special education and in clinical supervision of teachers that utilize facilitative power. Individualized education programs (IEPs) and school-based committees that share decision making in special education fall within Dunlap and Goldman's definition of facilitative power. In teacher supervision, current arguments to separate acts of supervisors is another example of facilitative power in schools. This concept of facilitative power is similar to the role of the principal in TCGs as proposed and implemented by Keedy (1989, 1990, 1991). According to Dunlap and Goldman, "the professional power of the administrator to help with teaching is exercised through the professional power of the teacher" (p. 22). This new power relationship between teachers and administrators depends on the recognition of expert knowledge and cooperation among colleagues and requires a base of trust and reciprocity.

> This type of power, involving a relationship between professionals who behave as peers rather than as superiors or subordinates, differs from authoritative, democratic, or anarchic power. It is consistent with both current educational reform emphases and with the earlier focus on effective schools and instructional leadership. (p. 22)

With the growing movement toward SBM comes another kind of "powershift" in schools. Since females outnumber males in the teaching profession, as power moves to the school-site with decision-making teams comprised of teachers and administrators, Glazer (1991) predicts both a professionalization of education and an increased female orientation to outcomes and processes of education.

Professional Inservice

The role of principal as education leader, the role of teachers as decision makers, and the emergence of SBM are three challenges for school leaders (Achilles & DuVall, 1989; Brubaker, 1985; Williams, 1988; NASSP News Leader, 1987; Vann, Novotney, & Knaub, 1977). Traditionally, educators have relied upon inservice programs to help them develop responses to calls for reform, but according to Daresh (1987), inservice programs in schools "are often perceived as a 'necessary evil' that is 'done to' people once in a while, in much the same way that the oil in the family car must be changed every few thousand miles." Daresh and LaPlant (1984) list 12 guidelines for designing effective inservice programs. Among their findings are that effective inservice is directed specifically toward local school and participant needs rather than at general and nebulous concepts; actively involves participants in planning, implementing and evaluating programs; employs active learning processes (rather than passive techniques such as lectures); is part of a long-term systematic staff development plan; enables participants to share ideas and provide assistance to one another; is provided during school time; and is accompanied by on-going evaluation.

School improvement groups can benefit from interaction with university personnel in professional development activities. This field service tradition has been long established in education by land-grant universities. In 1973, Achilles presented an appeal and some suggestions for strengthening cooperative field service arrangements between school systems and university preparation programs. The Report and Papers of the National Commission on Excellence in Educational Administration which appear in Leaders for America's Schools (1988) states that "professors must be actively involved in working for school improvements, designing and evaluating school-based research" (p. 19). Achilles (1988) suggests that administrator training programs "reduce the

gap between theory and practice through field efforts" (p. 50). Lezotte (1989) asks that teacher and administrator training programs continue with their mission of improving training but suggests that "this approach for school improvement is too slow to be the primary strategy" (p. 2). University personnel must be involved with improvement processes in the schools if training programs are to keep abreast of current issues in school improvement. An affiliation between university personnel interested in school-based research and school personnel seeking professional development through school improvement efforts would be a logical and mutually beneficial outgrowth of current trends in education restructuring. This affiliation would provide the setting and the circumstances for what Donald Schon (1988) calls "reflection-in-action" (p. 198) and assist in changing the relationship between research and practice from one of "exchanging" knowledge to one of cooperatively "creating" knowledge. Together, teachers and administrators would identify improvement goals and implement and evaluate improvement plans. According to Getzels (1979), instead of reacting to problems defined by those outside the school (presented problems), site-based educators would find and define problems (discovered problems) relevant to their own educational setting. They would, in effect, carry on school-based research. Haller (1989), commenting on research in educational administration, lists five "commonplaces," or areas, on which educators can focus "to deliberately change learners," which is the goal of educational efforts. These commonplaces are learners, teachers, subject matter, milieu (context), and administrators. Educators planning school improvements can focus their goals on these "commonplaces" and study the relationships among them to determine how they affect learners. As school personnel participate in school improvement efforts and attempt to carry out school-based

research, they will benefit from more in-depth, case data on how this research is implemented.

Situated Cognition

Approaching professional development through authentic collaborative school improvement efforts finds support in the work of, among others, Perkins and Salomon (1989), Brown, Collins, and Duguid (1989), and Prestine and LeGrande (1991). These writers explore the question of the context of cognitive skill. Specifically, they ask if cognitive skills are context-bound or if they are more general in nature.

Brown, Collins, and Duguid argue that "learning and cognition. . .are fundamentally situated" and that "situations might be said to co-produce knowledge through activity" (p. 32). This emphasizes the importance of the learning that occurs in "authentic" situations rather than the usual lecture-type approaches to instruction and inservice that are found in our educational system. Brown goes further, however, by discussing the concept of "cognitive apprenticeship" that stresses the development of cognitive skills in addition to the mastery of an activity that is characteristic of apprenticeship.

Perkins and Salomon refer to the process of "bringing together context-specific knowledge with general strategic knowledge" (p. 23) as synthesis. They propose "two different mechanisms by which transfer of specific skill and knowledge takes place" (p. 22). The "low road" to transfer requires extensive practice in a variety of situations so that the skill is automatically used in similar situations. The "high road" requires "deliberate, mindful abstraction of a principle" (p. 22).

Current school improvement initiatives find relevance in the idea of situated cognition. It provides a theoretical framework for structuring school improvement teams that address professional development in areas of decision making and

instructional leadership while working collaboratively on real issues of school planning and decision making.

Adult Learning

Theoretical support for school restructuring through collaborative, school improvement teams is found in emerging knowledge of the adult learner. Knowles (1980, 1984), in differentiating between pedagogy (instructing youth) and androgogy (instructing adults), points out that adult learning can build on experience to aid in the discovery of relationships between new learning and prior knowledge. Knowles also recognizes that adults especially need to be treated as independent, self-directed learners and that they respond to a problem-centered approach to learning. This problem orientation, the ability to build on prior experience, and the need for self-direction are consistent with the idea of cognitive apprenticeship and situated knowledge. They are also consistent with the concept of "synergogy" presented by Mouton and Blake (1984). Synergogy attempts to avoid the weaknesses of both androgogy and pedagogy. Mouton and Blake describe the weakness of pedagogy as the role of authority and the weakness of androgogy as too much dependence on prior knowledge. They list the following four differences between synergogy and other approaches:

> (1) replacing authority figures with learning designs and instruments managed by a learning administrator;
>
> (2) enabling learners to become proactive participants who exercise responsibility for their own learning;
>
> (3) applying to education the concept of synergy, in which the learning gain that results from teamwork exceeds the gain made by individuals learning alone;
>
> (4) using learners' colleague affiliations to provide motivation for learning. (p. 9)

Recognizing the differences between androgogy and pedagogy and building upon the idea of synergogy will assist educators as they work to provide training in site-based management, instructional leadership, and decision making. Administrators and university personnel can become team members and facilitators as they work with teachers to plan and implement school improvements. Teachers, who are closest to the point of delivery of education services, can take the lead in identifying needed improvements and innovations. Teacher professionalism and motivation will be enhanced by the opportunity to work on "real" school issues with other teachers, administrators, and university personnel. Teamwork can replace isolation as educators' primary mode of operation and provide the opportunity for collective brain power in the planning and operation of schools.

Organizational Change and Communication

Site-based management is built upon several premises. One premise is that real school change occurs only when it is developed and implemented from within (a grass-roots approach). This belief is consistent with effective schools research and is supported by recent results which indicate that top-down mandates for school reform have not been successful. If site-based management is to be successful and not just another of education's many fads, school personnel must be involved in a professional, not bureaucratic, process of school improvement founded upon change theory. This section of the literature review will explore organizational change through a communication/change model.

Today's calls for educational change come in a world where political and economic reforms have reached "nearly cataclysmic" proportions (Drucker, 1989). The move from an emphasis on muscle and money to an emphasis on the mind is characterized by Toffler (1990) as a "powershift." According to Achilles and Gaines (1991):

> The move from the industrial age and its sweatshop, smoke-stack production to an information/service age spurred by technology and nurtured by education makes knowledge and human capital a force to be considered more seriously than ever before.
>
> In this context, with intelligent, ethical and knowledgeable people (knowledge workers) change needs only be initiated and managed, not forced or plotted; opportunity and succorance, not coercion; covenants, not compulsion are the norms to be desired and developed as we seek education improvement. (p. 1)

Hillkirk (1990) points out that W. Edwards Deming, the American who was instrumental in the economic reform in Japan, promotes improvement in quality by an emphasis on information, education, and nurturance. Though Deming's work generally applies to business and industry, it may also be of value to education's knowledge workers who are seeking educational change through restructuring efforts based on school-based management and cooperative, or shared, decision-making.

Attempts to improve education are widespread, but successful change efforts are rare. Communication is frequently mentioned as a cause. Achilles and Norman (1974) and Achilles (1988) suggest that the reason may be the failure of most programs to go far enough, based on communication/change theory, to effect long-term significant change. They present a communication/change model (Figure 1) that relates forms of communication to each step of the change process. They propose that educators design programs that allow participation in all stages of change and that each stage be supported by the appropriate form of communication. This model incorporates attention to the four main variables of communication: message, medium, sender, and receiver or audience. Emphases within these variables change as the purpose of effort moves from awareness or cognitive control through skill building (evaluation and trial) to the transfer of skill and adoption or adaptation of the innovation.

Figure 1 about here

Conclusion

School restructuring is a complex issue that can take many forms. This literature review has described the organizational context of schools in the United States during this century. A theoretical basis for school reform through collaborative, site-based decision making teams has been presented. This theoretical base draws upon research in situated cognition, adult learning, professional inservice, professionalization of teaching, and organizational change and communication to support a restructuring effort that is designed from this research and that is implemented in a real school setting.

	ELEMENT OF COMMUNICATION			MANAGEMENT/EVALUATION STEPS OR GUIDES		
Stage of Change Process* (Messages) (1)	Facilitators (Transmitters) (2)	Channels or Process (3)	Audiences or Targets (Receivers) (4)	Purpose (5)	Results/ Action Taken (6)	Evaluation Methods/ Outcomes (7)
SPREAD Awareness Interest (Initiation: Mobilization) Knowledge and Persuasion	Theorist, Researcher, Public "Popularizer," Professor, State Facilitator.	Dissemination. Mass communication. Spreading the word. One-way. Speeches. Journals. Awareness sessions.	Policy Persons, School Boards, Large groups of Educators including potential adopters (teachers)			
CHOICE/EXCHANGE Evaluation Trial (Implementation) Decision	State Facilitator, Supervisor, State Education Agency Personnel, Developer/Demonstrators.	Demonstration. Some two-way. Observation of practices and processes. Small groups. (Visitations)	Change Agents, Supervisors or Innovative Principals. Job-specific groups (e.g., special education).			
IMPLEMENTATION Adoption or Adaptation (Incorporation) Confirmation	Teacher or certified trainer. Usually a peer. Someone similar to the potential user.	Diffusion. Two-way; One-to-one. Application and practice. Individual; "Hands-On." Training sessions. Effect.	Single ESP groups, Small groups of teachers, Individual adopters			
IMPACT or RESULT	Evaluators.	Reports	Policy-makers			

*Terms in ( ) are from the RAND studies (Berman, et al). Underlined terms are from Rogers (1962) and lower case regular terms are from Rogers and Shoemaker (1971). For basic model, see Achilles and Norman (1974), and Achilles (1985).

Figure 1. Communication/Change matrix relating elements of communication theory and change process as a basis for planning, designing, conducting and evaluating SIGN efforts. Columns 5-6 -- and additional ones that might be added -- provide management direction and assist in evaluation.

CHAPTER 3

METHODOLOGY

Introduction

> Knowledge is rooted in experience and requires a form for its representation. Since all forms of representation constrain what can be represented, they can only partially represent what we would know. Forms of representation not only constrain representation, they limit what we seek. As a result, socialization in method is a process that shapes what we can know and influences what we value. At base it is a political undertaking. (Eisner, 1988, p. 15)

With this observation, Eisner introduces two powerful methodological considerations in research. First, that knowledge is rooted in experience and experience can never be fully expressed. Knowledge can be expressed only insofar as our means of expression allow. The second consideration is that methodological choice is a political choice because it implies certain values. These considerations were especially pertinent to my choice of a combination of qualitative and quantitative methodology as the most appropriate means of representing this study, with an emphasis on the qualitative.

Statement of Purpose

According to Barber, Forbes, and Fortune (1988), qualitative/descriptive studies focus on process" (p. 9). One purpose of this study is to describe the implementation in a school system of site-based management (SBM) as a collaborative, shared decision-making process called the School Improvement Groups Network (SIGN). Specifically, the study explores and describes the "how" elements of implementing participatory SBM in one school system.

Research Questions

The overarching research question explored by this study is, "How do individuals working in schools and school systems move from bureaucratic to participatory SBM?" This research focused on questions specific to the SIGN implementation and on relating the actual practice to various theories. Specific questions that guided the study are:

1. What is the SIGN approach to SBM and what are its major processes as implemented in the Camp Lejeune Dependents' Schools (CLDS) in Camp Lejeune, North Carolina?
2. How does the SIGN approach to implementing participatory SBM in a school system compare to the communication/change model proposed by Achilles and Norman (1974) and Achilles (1986, 1988)?
3. How does the SIGN approach to inservice compare to the characteristics of effective inservice suggested by Daresh and LaPlant (1984)?
4. How does the SIGN approach to teacher empowerment/professionalization compare to the Teacher Collegial Group (TCG) approach (Keedy, 1988, 1989), the Site Team approach (Joyce, et al., 1989), and the collaborative approach suggested by Grumet (1989)?
5. How does the SIGN approach to developing instructional leadership compare to ASCD's characteristics of the principal as instructional leader (1984) and Brubaker's conceptualization of instructional leadership (1985)?
6. How does the SIGN approach to the professional development of educators compare to theories of adult learning (Knowles, 1980, 1984; Mouton and Blake, 1984), situated cognition and/or cognitive apprenticeship (Brown, et al., 1989; Perkins and Salomon, 1989), and cognitive learning theory (Prestine and LeGrand, 1991)?

Design

Project SIGN was the study of the "creation of a new setting" (Sarason, 1972) in the Camp Lejeune Dependents' Schools (CLDS). The initial emphasis was to create and try out a new method of reform, decisioning, and site-based management (SBM) in a few (n=4) schools and with a few people. By the second year the new settings had spread to all schools (n=8) in CLDS, and some site-initiated change had system-wide impact and importance. Although there are quantitative elements, the study was primarily nonexperimental, descriptive, and qualitative. Its purpose was to describe and explain a process (SIGN) and not to seek a cause-effect relationship between, or significant differences among, variables that lend themselves to manipulation or control. Merriam (1988) describes qualitative research. Her analysis characterizes the design as being "flexible, evolving, and emergent," the sample as being "small, non-random, and theoretical," the researcher as being "the primary instrument," and the mode of analysis as being "inductive" (p. 18). Since an underlying principle of SIGN was site-based planning by teachers and administrators, decisions rested with them for many aspects of the process, such as selection of team members and goals, planning procedures, and evaluating progress of their school improvement goals. The study of the SIGN process can be described as a naturalistic case study in that it is based on an "intensive, holistic description and analysis of a social unit or phenomenon" (Merriam, p. 23) that leads to sociocultural interpretation. Qualitative descriptions were bolstered by quantitative data where appropriate.

Glaser and Strauss (1967) and Erickson (1986) describe the comparative analysis approach to research that is based on intensive participant observation in the field to gather data, careful recording of field notes, and analysis of the data derived from

the field work. This method was used along with questionnaires, interviews, and archival studies to gather data for this study.

Although qualitative and descriptive methodology was the primary choice for this study, some aspects of SIGN are expressed well through quantitative means. Thus, to draw conclusions and conduct the analysis, the researcher has collected quantitative data such as questionnaire responses, numbers of people/events, etc. This is consistent with the researcher's belief that a single view of reality is not sufficient to describe a complex, dynamic setting. When appropriate, quantitative methods were used to represent the findings of the study.

Reliability and Validity

Case study design was the primary means for investigating the SIGN process because it offered the best means for exploring a complex educational and social process. Merriam (1988) states that "because of its strengths, case study is a particularly appealing design for applied fields of study such as education" (p. 23). The case study allows the investigation of real situations rather than highly controlled, experimental settings. Case study allows consideration of many variables at once, rather than limited, isolated variables. Results of case studies advance knowledge in a rich, holistic way. When educational change or improvement is the focus, case study design is particularly appropriate because it involves the examination and understanding of real programs, processes, and problems (Merriam, 1988).

Case study design has limitations. It can be expensive and time consuming. There is a danger of producing too much information to be of practical use. The skill and knowledge of the researcher are particularly critical since the researcher is the primary instrument and must make decisions about what to study and report. Case

studies may be presented, or viewed, as the whole picture rather than just one part of a complex situation, leading to erroneous conclusions about the topic (Merriam, 1988).

Reliability, validity, and generalizability of case study research are issues of debate among researchers. Merriam (1988) questions the notion of reality as a "single, fixed, objective phenomenon waiting to be discovered, observed and measured" (p. 167) and points out that "one of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing" (p. 167).

In qualitative research, internal validity (how well research findings represent reality) can be ensured through triangulation; member checks; long-term, on-site or repeated observations; peer examination of findings; participatory research; and acknowledging and clarifying the researcher's biases (Merriam, 1988). The SIGN project made use of multiple data sources and methods (triangulation); member checks; long-term, on-site observation; and participatory research to address internal validity. Also, observation by four professors of education administration, facilitation and feedback from central office staff, and check of work by other CLDS employees were also used as means of ensuring internal validity.

Reliability, in the traditional sense, refers to the extent to which a study can be replicated, and also depends on a reality that is static and unchanging. Exact replication is not a useful concept in qualitative research since this kind of research is not intended to establish causation but rather to establish representations that can be interpreted and applied by the various consumers of the research. "Dependability" or "consistency" are more useful terms in qualitative research and simply mean that consumers agree that the results make sense, given the data available (Lincoln & Guba, 1985, cited in Merriam, 1988). Questions of reliability in the SIGN study focused upon the believability, dependability or consistency of the result. These issues were addressed by

a thorough explanation of: (1) assumptions and theories underlying the study; (2) procedures and social context of the study; and (3) multiple methods of data collection.

External validity, or generalizability, in qualitative research also differs from that same concept as usually applied to quantitative research. Case study research is undertaken to investigate one particular phenomenon, not to study many phenomena and make generalizations. Merriam describes four reconceptualizations of generalizability: working hypotheses (Cronbach, 1975); concrete universals (Erickson, 1986); naturalistic generalization (Stake, 1978); and user or reader generalizability (Wilson, 1979; Walker, 1980). The SIGN project used thick description and concrete universals (comparing the SIGN process with other, similar programs), both necessary to improving the generalizability of results. Thick description provides the necessary data for consumers to draw their own conclusions about the applicability of the SIGN study to their own situations. It also allows the researcher to compare and contrast the SIGN project with similar studies. Also presentations and discussions of SIGN processes and results at various regional and national leadership meetings (see SIGN bibliography, Appendix A) occurred throughout both years of the study allowing additional opportunities to compare and contrast the SIGN approach with similar initiatives.

Data Sources/Outcomes

Since one purpose of this study was to describe the implementation in a school system of a collaborative, shared decision-making process, certain desired outcomes were identified at the initiation of the project. These outcomes were logical extensions of processes that were already in existence in the CLDS but that were in need of additional work if the system were to continue its progress in school improvement through a site-based shared decision making process. These projected outcomes were presented in a proposal for funding by the School-Based, Small Grants Program of the General

Administration of the University of North Carolina and they are listed with their supporting data sources in Table 1.

Table 1 about here

Secondly, over a period from October, 1989-June, 1991 the researcher tracked the respective roles of the local education agency (LEA) teachers, administrators, institution of higher education (IHE) facilitators and, indirectly, central office personnel in this SBM/teacher empowerment effort. Data sources for this outcome were observation and field notes, interviews, and questionnaires.

Serendipitous outcomes attendant to the SIGN process in this system were documented by the researcher. Artifacts, a portfolio (scrapbook), and records of changes in at-risk students and in use of personnel were used to document outcomes. Since I could not be present in all schools as SIGN members carried out their school improvement plans, reports from secondary sources and archival sources were used.

Instrumentation/Data Collection Procedures

Since research methodology for this study was a mixture of qualitative and quantitative techniques, data were collected through interviews, questionnaires (Appendix B), direct observation/field notes (Appendix C), archival measures (Table 1, Outcomes/Data Sources), and tabulations of numbers of people/events/pupils, etc. influenced by or involved in the SIGN process. Questionnaires were developed based on research in site-based management, shared decision making, instructional leadership, organizational structure, and change and were reviewed by university professors for applicability to the SIGN study. Since this study was designed to describe the

Table 1.

Proposed SIGN Outcomes and Supporting Data Sources

Outcomes	Data Sources
1. The development of strategies for instructional leadership by principals	Questionnaire Observation
2. Observable change in schools as determined by school teams	Questionnaire Observation
3. Demonstration of an action-oriented, involvement approach to inservice (SIGN)	Interview Questionnaire Observation
4. An increase in shared decision making	Questionnaire Observation
5. An increase in collaboration between teachers and administrators	Questionnaire Interview
6. An increase in collaboration between school and university personnel.	Questionnaire Interview

Note: History and archival data, including participant collective memory as determined from questionnaire responses, helped provide a baseline to allow the research to identify "increase" or "change."

experiences of participants and was not intended to generate data for psychometric analysis, the questionnaires were determined to elicit relevant factual data for documenting the experiences of participants and the outcomes of the project.

Instrument for Data Collection

The following instruments (see Appendix B, "Data Instrumentation") were used to collect data for this study:

1. Questionnaire I asked participants to provide open-ended responses to target questions.
2. Questionnaire II asked participants to rate their reactions from "strongly agree" to "strongly disagree" to various statements concerning target issues.
3. Questionnaire III asked participants to list in order of importance with #1 being "most important" certain facets of their experiences as educators.

Questionnaire I was administered at two points during the two-year study (June 1990, June 1991). Questionnaires II and III were administered at two points during the two-year study (October 1989, June 1991).

4. SIGN Progress Report is an additional method of data collection that allowed school teams to document progress on their school improvement goals. This Progress Report was completed at three points during the study (December 1989, June 1990, and March 1991).
5. SIGN Individual Project Evaluations were completed by participants at the end of each year in the study. The format of this evaluation varied in 1990-91 due to the more comprehensive nature of school plans.
6. Interviews, observations and process changes were documented in field notes (see Appendix C for sample of field notes).
7. The portfolio/scrapbook was used to document events and outcomes of SIGN.

8. Additional information was documented through member counts, lists of people involved, race/sex data, and changes in students in "at-risk" categories.

Researcher as Instrument for Data Collection

As in other qualitative studies, the researcher was a primary instrument for data collection and interpretation. The researcher was coordinator of the project and a participant-observer throughout the first three years of implementation. As coordinator, I planned and conducted all system-level SIGN meetings, disseminated information, planned with the central administration our system's direction for school improvement, acted as liaison with university personnel and other consultants, and assisted individual schools. In my role as coordinator, I was faced with the task of putting together a complex, multi-faceted setting that had change as its purpose and real people as the players.

As researcher, I entered the study with the understanding that "we know more than we can tell" (Eisner, 1988, p. 16; Polanyi, 1964) and the belief that a single view of reality is not sufficient to describe a complex, dynamic setting such as SIGN. I was aware that "creating the setting" for SIGN would be fraught with uncertainties and that I must enter with a tolerance for ambiguity, a characteristic that Merriam (1988) states is required of qualitative researchers. Although my training as a speech/language pathologist and the quantitative nature of my master's thesis had not prepared me for a qualitative approach, my experience in the school setting had led to my recognition of the importance of rich, descriptive data in education. Somehow I was to make sense of this complex and ever-changing process and put it in a form that would be understandable, perhaps useful, to other educators.

In speaking of educational research, Eisner (1988) says, "We talk of our findings, implying somehow that we discover the world rather than construct it" (p.

18). My awareness of both my responsibility in the construction of SIGN and the interactive nature of the process grew with my experience with SIGN. Each school's SIGN group had an identity and an agenda to accomplish. The systemwide SIGN process also had an identity and an agenda. These multiple identities and agendas were inseparably connected but were not the same. In addition, the entire process was in a constant state of development and change during the two years of the study.

In the SIGN study, the issue of researcher bias must be addressed. The researcher worked closely with her dissertation committee chairperson in the development of the grant proposal that funded the first year of the study. During both years of the study (1989-90, 1990-91), the researcher was assisted in the implementation of the SIGN study by two of her dissertation committee members, Dr. Charles Achilles and Dr. Dale Brubaker, who served as unpaid consultants. The observations, input, and feedback from these two advisors guided the researcher as she sought to create the SIGN setting in the CLDS and to report findings from the implementation of the SIGN project.

Eisner (1988) quarrels with "the effort of some to impose a single version of truth, to prescribe one church and to proscribe all others" and with "the view that a scientifically acceptable research method is 'objective' or value-free, that it harbors no particular point of view" (p. 19). Jackson (1989) speaks of the multiple meanings that are embedded in settings and the need to "tease" out those that can be "buttressed in ways that are convincing." Merriam (1988) questions the notion of reality as a "single, fixed, objective phenomenon waiting to be discovered, observed and measured" (p. 167). The observations of these writers made methodological sense to me in my role as a participant/observer in SIGN. They reveal my biases, expose my sensitivities, and speak to my commitment to communicate clearly the "experience" of SIGN.

Qualitative Data Analysis

The SIGN study is primarily a qualitative/descriptive investigation that seeks to explain how individuals, schools, and school systems move from bureaucratic to participatory site-based management. In qualitative study the researcher sets the limits of the inquiry (Guba & Lincoln, 1981, p. 86, cited in Merriam, 1988, p. 45). According to Patton (1980, p. 100, cited in Merriam, 1988, p. 44), the researcher determines the unit of analysis by deciding "what it is you want to be able to say something about at the end of the study." The unit of analysis for this study is one case or "bounded system" (Merriam, p. 46), the SIGN process during the first two years of implementation in the CLDS. Further, within this "bounded system" the analysis is not of individuals, but of groups (SIGNs), processes, and products.

Within the SIGN study, sample selection conformed to Merriam's description of nonprobability, purposive (or criterion-based), comprehensive sampling. Sampling was nonprobability in that "there is no way of estimating the probability that each element has of being included in the sample and no assurance that every element has some chance of being included" (Chein, 1981, p. 423, cited in Merriam, 1988, p. 47). For the study of SIGN, much of the formal data was collected from participants but the researcher also gathered information from events and contexts outside of SIGN. The sample was purposive, or criterion-based, in that the researcher specified certain criteria and purposefully selected a sample that matched those criteria and provided the best opportunity to learn the most about the case (Merriam, 1988). Further, sampling for the SIGN study meets Goetz' and LeCompte's (1984, p. 78, cited in Merriam, 1988, p. 49) description of "Comprehensive: This strategy allows one to 'examine every case, instance, or element in a relevant population'."

Barber, Forbes, and Fortune (1988) state that a rule of thumb for selecting samples within a case is that if there are 60 or fewer, the researcher should select all of them (p. 43). Since the number of participants in SIGN never exceeded 60 at any given time, data from all participants are included for analysis. Sample selection for SIGN also has characteristics of "reputational case selection" (Goetz & LeCompte, 1984, p. 82, cited in Merriam, 1988, p. 50) in that (1) some of the instances chosen for data collection, and (2) the SIGN participants themselves were chosen based on the recommendation of "experienced experts in the area." For example, principals in some cases selected some members of the school improvement teams; university professors pointed out events that were important to the study; central office personnel were included based on specific needs identified by participants or based on initiatives by the central office staff.

Data for this study (observation records, field notes, procedural records, correspondence, questionnaires, progress reports, tallies of important events or findings, project evaluations) were arranged chronologically and topically. Analysis procedures were both deductive (frequency counts and percents) and inductive (content analysis) and included narrative accounts. From these procedures, categories or themes were developed to describe and explain the SIGN process. A significant component of data analysis was examining the data and comparing them with the theoretic models upon which the study is based.

Subjects

School System

In Spring 1989, the superintendent of CLDS endorsed a school improvement project to increase teacher participation in decision making at the school site. The project was funded through the University of North Carolina (UNC) Small Grants

School-Based Research Program and was a collaborative effort between the University of North Carolina at Greensboro (UNCG) and the CLDS.

Schools

In 1989-90, the superintendent and researcher selected schools representing primary, elementary and high school levels. Four CLDS principals agreed to participate and to select a team of teachers to work collaboratively with them on at least one school improvement goal during the 1989-90 school year. Due to funding limitations, three remaining schools in the system were not asked to participate in year one. All non-participating schools were involved in school improvement efforts outside of the SIGN project.

In year one, the participating schools were: (1) Tarawa Terrace One (TT1): Grades K-2; 535 students; 37 faculty members. TT1 is located in an enlisted personnel's housing area. Most TT1 students are children of enlisted personnel. (2) Tarawa Terrace Two (TT2): Grades 3-6, with a large number of exceptional education programs housed at the school: 557 students, 38 faculty members. TT2, located in an enlisted personnel's housing area, served primarily the children of enlisted personnel and CLDS sixth grade students in 1989-90. (3) Berkeley Manor: Grades K-5; 630 students; 42 faculty members. Berkeley Manor is located in a housing area for non-commissioned officers. (4) Lejeune High School (LHS): Grades 9-12, 527 students; 60 faculty members. LHS serves all high school students in the CLDS.

In 1990-91, year two of the SIGN project, the superintendent asked that all schools in the CLDS participate in the process. This doubled the size of the system-wide SIGN and, since a new primary/elementary school had been added to the CLDS system, brought the total number of participating schools to eight. All primary/elementary schools were now K-5 schools, except for TT1 which became a K-4 school. Enrollment

in the six primary/elementary schools ran from 362 to 475 students, with a corresponding shift in numbers of faculty and staff at each school to support the enrollment. In addition, all sixth grade students moved to the middle school beginning with the 1990-91 school year.

In year two of SIGN, participating schools were (1) TT1: Grades K-4; 362 students. (2) TT2: Grades K-5; 400 students. (3) Berkeley Manor: Grades K-5; 475 students. (4) Stone Street: Grades K-5; 474 students. (5) Delalio: Grades K-5; 428 students. (6) Russell: Grades K-5; 406 students. (7) Brewster Middle School: Grades 6-8; 718 students. (8) LHS: Grades 9-12; 519 students. Faculty numbers remained essentially the same with the addition of support personnel to staff the new elementary school in 1990-91.

Team Members

Since SIGN was based on participatory SBM, personnel in each school were expected to develop a method for selecting SIGN participants. In the first year of establishing and implementing this innovative program (SIGN), the principal of each school necessarily provided much of the definition of the team selection process. By the beginning of the second year, the school teams had taken over, to varying degrees, the direction of team selection. In year one, the researcher gave principals general suggestions for approximate team size (4-8) and asked that participants be teachers and one building-level administrator and that participants agree to participate for the entire 1989-90 school year. Since team selection and goal selection are seen in the SIGN process as being related to each other, both goal and team selection in participating schools are described below:

Year one (1989-90). In 1989-90, there were 24 regular CLDS participants in the four school site groups (19 teachers and 5 administrators). Racial composition

was 5 black and 19 white. Gender composition was 5 male and 19 female. Additional participants included the site coordinator (researcher and observer/evaluator with the CLDS); the project director (professor at UNCG); 3 college professors (UNCG, West Georgia College, and East Carolina University); 1 part-time graduate assistant (UNCG). Central level administrators also participated in some meetings but not on a regular basis.

TARAWA TERRACE ONE (TT1): Team members were selected by the principal. Since she wanted to involve all grade levels and special areas, she chose to use team leaders who were already in place as her SIGN team. The reading improvement specialist was added after the initial planning because of her expertise across all grade levels and curriculum areas.

The principal initially planned to build the SIGN project at TT1 around developing leadership skills in the teacher-leaders in the school but subsequently concluded that these skills would be a by-product of the teacher-leaders' involvement in the SIGN process. She then decided to use the project to develop a five-year strategic plan, a goal that the superintendent of CLDS had set for each school in the system. Since this school was also planning to compete for the US Department of Education School of Excellence Award in 1989-90, the principal decided to use the self-study and extensive application for the award as a needs assessment and baseline for the five-year comprehensive plan.

TARAWA TERRACE TWO (TT2): The principal and teachers at TT2 had already decided to focus on the school's at-risk program in 1989-90 because of the large number of at-risk students that had been identified at the school. School planners saw SIGN as a way to intensify and extend their previous work with at-risk students.

SIGN participants were selected in two ways. The principal first asked for volunteers who were interested in the at-risk project. He then appointed other members in order to have one member from each grade level and from special education.

BERKELEY MANOR SCHOOL: The Berkeley Manor principal selected a team based on the following criteria: He wanted to cover the grade range but to keep the team small; he wanted teachers who volunteered to participate. In addition to the principal, the team consisted of one very experienced teacher who was a team leader, a slightly less experienced teacher who was not involved in additional leadership duties, and a beginning teacher.

The grade-level teams at Berkeley Manor discussed school goals in their team meetings at the beginning of the school year. The SIGN group reviewed these goals and picked the development of an "on-the-wall" curriculum to be the focus of the SIGN project. The "on-the-wall" curriculum was to be a concise statement of the CLDS curriculum outcomes that would facilitate communication with parents about educational expectations for students at the school.

LEJEUNE HIGH SCHOOL (LHS): At LHS the faculty selected three long-range objectives for school improvement. Faculty and staff members then signed up for the objective that they were interested in. The principal and the assistant principal for curriculum, with input from the superintendent, picked the objective of setting high student expectations as the focus for the SIGN project. The principal and both assistant principals then chose participants from those who had expressed an interest in this objective. The principal stated that they considered the following factors in making their selection: experience, race, subject areas/grade levels, age, gender, and attitude (positive, negative). As the SIGN group began to function, the nature of the goal underwent a transition from setting high student expectations to school climate to a new

structure for planning and governance. This transition was based on a process of problem-finding that revealed that many teachers felt they spent too much time meeting and this ultimately affected school climate and diminished their ability to set high student expectations.

Year two (1990-91): In 1990-91, participants varied more than in the first year, primarily for two reasons. First, individual school teams were expanded both in the number and in the categories of participants, including teacher assistants, parents, and clerical employees. Second, it was necessary to limit membership in the system-wide SIGN meetings to 5 per school per meeting (total 40) in order that substitute teachers could be provided. As a result, some school teams rotated attendance at system-level SIGN meetings among members of their site-based teams. The average number of participants in year two was 42, with an average of 5 black participants and 6 male participants at each SIGN meeting. The site coordinator assumed the primary responsibility for conducting the SIGN process in year two, with support from the site director and another UNCG professor. In addition, the superintendent and assistant superintendent of the CLDS continued to provide support and assistance that were crucial to the success of SIGN.

BERKELEY MANOR SCHOOL: The SIGN Committee at Berkeley Manor in 1990-91 consisted of volunteers from the school at large rather than volunteers by team or grade level. The school was under the leadership of a new principal who stated that she needed committee members for SIGN. Volunteers were a mixture of teachers new to SIGN and those with prior SIGN Committee experience. Each SIGN committee member served as chairperson for one major goal area. Goals for school improvement originated from brainstorming at a faculty meeting. These rough goals were refined by the SIGN team at systemwide SIGN meetings. Committees were established for each goal area. Each

teacher, teacher assistant, administrator, and office staff person served on a committee of their choice.

BREWSTER MIDDLE SCHOOL: In 1990-91 the Brewster Middle School principal asked each grade level and the support/special area group to select a SIGN representative to serve on the SIGN committee. In some groups representatives were nominated by peers while in others they were self-nominated. In the school, support/special area teachers were assigned to each of the three grade levels. Each grade level group met with the SIGN members to brainstorm and provide input to the school improvement process. Goals for school improvement were identified in two ways. At the end of the 1989-90 school year, school teams at Brewster had reviewed the Middle Grades Assessment completed during the year and determined areas in need of improvement. Goals emerged from this self-study as well as from teacher and staff input in other areas.

DELALIO ELEMENTARY SCHOOL: SIGN representatives were elected at Delalio School. The top five vote-getters were four teachers and one teacher assistant. These five staff members then decided among themselves which of the five school improvement committees each of them would chair. The remainder of the staff (teachers, assistants, custodians, cafeteria workers), as well as members of the parent advisory committee, prioritized their choices of three committees on which they wished to serve. Based on this prioritization, it was determined that everyone could reasonably be assigned to their first choice, thus establishing the school-based improvement committees. The committees were set up to correspond with the five areas monitored by the Southern Association of Colleges and Schools (SACS) in their alternative route to accreditation (school climate, planning, staff development, curriculum and instruction, and communication). Each committee established goals, objectives, and strategies by determining the status of the school in that area and then planning where they wanted to

go. They set timelines, identified facilitators, and stated how they would document accomplishments for each strategy.

LEJEUNE HIGH SCHOOL: At LHS, SIGN representatives, including teachers, administrators, students and parents, were elected from those who volunteered to run. The remaining faculty and staff were assigned to teams by a computer-assisted decisioning process developed by the SIGN site-coordinator (see Appendix D). Participants were asked to prioritize their choices of committees. The computer program to assigned members to their highest possible choice while at the same time balancing the committees according to various constraints (subject area, committee size, employee status, i.e. teacher, assistant, administrator, etc.). Elections were held for student SIGN representatives. The LHS SIGN decided to maintain the goal areas that they had established in 1989-90 (school climate/communication, higher expectations, and research-based progressive practices). Goals for 1990-91 were continuations of those established the previous year as well as new ones determined by input from faculty, staff, parents, and students.

RUSSELL ELEMENTARY SCHOOL: Russell Elementary joined the SIGN process in 1990-91 as a new school in the CLDS. The new principal, who was in his first year as a principal, was committed to the concept and practice of shared school governance. The principal asked for a volunteer from each team to serve on the SIGN committee. These members communicated with faculty through regular school team meetings. Goals grew from brainstorming sessions both in the school and at system-level SIGN meetings. The Russell SIGN committee joined the system-wide effort to align CLDS system goals, SACS goals, and school goals. This first year of existence for Russell Elementary was necessarily a time of getting to know each other and of sharing basic assumptions about schooling, both considered important first steps by the new principal.

STONE STREET ELEMENTARY SCHOOL: At Stone Street Elementary SIGN members, with the exception of the administrator and the parent representatives, were elected by the staff. Parent representatives were the PTO president and past president. Both the school principal and assistant principal served on the committee. The school's elementary program specialist served as secretary for the SIGN committee. Each SIGN member chaired a committee that was to work on specific goals. Goals were selected by brainstorming with the school's faculty and staff and PTO. Committees then refined these suggestions and developed improvement goals.

TARAWA TERRACE ONE ELEMENTARY: At TT1 changes in the 1990-91 SIGN committee reflected staff changes in the school. The new principal and the new elementary program specialist replaced those from the prior year on the SIGN committee while the remaining members were the same as in 1989-90. In January 1991, the school's SACS chairperson was asked to join the SIGN committee. Since the system-level SIGN group had doubled in size and restrictions had been placed on the number of people attending each system-level meeting, the TT1 SIGN committee designated four members as permanent and three as alternates. The permanent members routinely attended system-level meetings with the alternates attending on an "as needed" basis. Since each SIGN member was also a team leader in the school, the communication of SIGN activities was carried out through regular team meetings in the school. Improvement goals for 1990-91 were carried over from the five-year school improvement plan developed by the SIGN team in 1989-90. The SIGN team also began to look at the new SACS process of site-based school improvement and to take initial steps to align the SACS and SIGN process. The new principal of TT1 in 1990-91 felt that it was especially important in her first year to do things as a whole school and use the SIGN

committee to collect data, "scout out" problem areas and needs with the teams, and to keep the teams on target with their goals.

TARAWA TERRACE TWO ELEMENTARY: In 1990-91 the SIGN team at TT2 was formed by a volunteer from each grade level and each special-area team. Each team's SIGN representative contributed ideas for goals based on needs identified by the faculty and staff at the team level. Goals were refined at SIGN systemwide meetings and were organized according to four goal areas that had grown out of the previous year's planning process. The TT2 SIGN committee felt that goals were driven by identified needs rather than by goal areas established by SACS.

Operating Details/Structure: An Overview

The SIGN project was a collaborative effort between a university and a school system. The CLDS made a large investment in Project SIGN, including (1) substitute pay so that the SIGN teachers could attend SIGN meetings, (2) released time so that the principals and other administrators could attend and participate in SIGN, (3) released time of the SIGN coordinator, and (4) logistical support such as phone, audio-visual equipment and paper/supplies. In the first year of this study, Project SIGN (i.e., the school-based research grant) provided direct costs of consultants, travel (including meals, use of the Officers' Club for an away-from-school meeting site, and reimbursement for participant visitation), supplies, and support materials for individual schools. The university, in consultation with key members of the school system, provided the inservice structure and group facilitation. In year two, operating expenses were provided by the school system. In both years of the study, the school system provided the opportunity for school-based research leading to a model to be adapted/adopted by other systems. The SIGN process enabled building-level administrators and teachers (school improvement teams) to meet together throughout

the school year to work on their chosen improvement goals. The following processes were an integral part of implementing SIGN:

1. Establishing school teams consisting of a building administrator and from 3-7 teachers from 4 schools in year one. In year two, eight school teams of similar composition were established; however, parent advisory members were added to the site teams in some schools. In addition, some teams were expanded to include, as advisory members, paraprofessionals, custodial, cafeteria workers, or specialized members from outside of the school. The School Improvement Groups Network, or SIGN, was made up of the school teams in collaboration with central office and higher education personnel. Appendix E is a list of major SIGN participants.
2. Presenting key leadership concepts such as agenda setting, shared decision making, communication/change processes, consensus building, and strategic planning to assist teams:
    a. in identifying problems (problem finding) in their schools in one of the five areas outlined by Haller and Knapp (1985) or in one of the areas for school improvement defined by the SACS in its alternative route to accreditation;
    b. in implementing a problem-solving/planning model to address these concerns and to develop school improvement goals and plans.
3. Exploring organizational culture and site-based management in the work environment.
4. Monitoring and assessing each school improvement plan during the school year.
5. Assessing project results at the end of year one and again at the end of year two.

6. Providing feedback to participants, central administration, and university facilitators to guide system and site planning.

Project SIGN began in year one with a two-day planning seminar for participants. The seminar was held away from the school system and was facilitated by university personnel and the site coordinator (the researcher). The usual structure for subsequent SIGN meetings was approximately the same in year one, allowing for slight variations depending upon the topic and the consultants. (See Appendix C for samples of SIGN agendas.) Basically, each meeting was held away from the school site and was attended by school site teams, university facilitators, and central office staff whenever possible. Meetings began with a critical analysis or discussion of some educational issue or article. School teams took turns providing leadership for these critical discussions and were facilitated by university personnel. Each group provided a summary of progress to date on the group goal and a statement of directions that each group would take during the current meeting. Meetings ended with each group stating a "gameplan" for the interval of time between the current and next meeting. A major focus of each meeting was time for groups to work together. Presentations by consultants on such topics as restructuring, school improvement, change, group process, parental involvement, and strategic planning occurred throughout the year but usually occupied less than one hour of each meeting day. The general SIGN format was one suggested by Keedy (1988) for teacher collegial group processes. Table 2 provides a summary of SIGN activities, 1989-90.

Table 2 about here

Table 2

SIGN Calendar of Events/Activities: 1989-90

Date	Event/Activity
5/89	Submitted grant proposal to UNC Small Grants School-Based Research Program after collaboration with CLDS superintendent and UNCG professor and chair, Department of Education Administration
6/89	Met with superintendent to plan implementation of site-based, shared decision making project in the CLDS.
6/89	Met individually with principals of four schools and received commitments from them to participate in the project. Received notice that grant was funded. Notified principals and they established teams.
10/13/89	First system-wide meeting:

Table 2 continued

SIGN Calendar of Events/Activities: 1989-90

NOTE: Each meeting began with an article critique and/or progress report, ended with a gameplan, and provided time for large group and small group work. All events were day long except those marked with *. The two-day meeting was held at Atlantic Beach, regular meetings were held at the Officers' Club, and other meetings were held in the schools.

Date	Facilitators	Topics/Events
10/13/89	Achilles Gaines	SIGN background, school reform, Teacher Collegial Groups (TCGs), instructional leadership, shared decision making (SDM), site-based management (SBM), school goals.
11/8/89- 11/9/89	Achilles Brubaker Keedy Gaines	SBM, instructional leadership, SDM, personal leadership, feedback, TCGs.
12/6/89	Achilles Gaines	Project evaluations, school project topics (students at risk strategic planning, learner outcomes, shared planning time, school management teams).
*1/9/90	Gaines	Project funds, communication of SIGN projects within CLDS, school project topics.
2/16/90	Achilles Gaines	School reform and restructuring, change, class size, school project topics.
*2/26/90	Gaines	Presentations of group projects to CLDS administrators by SIGN groups.
3/13/90	Bell Gaines	Systems theory, strategic planning, site-based management, organizational culture, program evaluation, professionalism, feedback on SIGN data collection.
4/3/90	Achilles Gaines	Site visits to participating schools.
4/20/90	Achilles Sloan Brubaker Gaines	Participatory school-site management, project evaluation, school project topics.
5/1/90	Bell Gaines	School project topics.
6/5/90	Achilles Gaines	SIGN evaluations, data collection, project presentations, certificate presentation.
6/8/90	Bell Gaines	Consensus building with high school SIGN team.
*6/14/90	Gaines	System wide recognition of SIGN participants.

In the second year of SIGN, the size of the system level SIGN almost doubled. This necessitated some changes in the meeting format. Small group work time was maintained as in year one. Critical analysis of educational issues, large group sharing, and presentations by consultants were no longer possible at every meeting and these events were alternated among the meeting dates so as not to consume too much of the school group work time. Table 3 provides a summary of SIGN activities, 1990-91.

Table 3 about here

Conclusion

Choice of dissertation methodology is a political decision. Researchers ponder the interplay between theory and practice just as they ponder the interplay between experience and the representation of experience, between reality and labeling reality. We admit that "we know more than we can tell" (Eisner, p. 16). In the final analysis, we give in to the requirement that we make political decisions about what we represent and how we represent it. We admit that we are making value judgments. We point out to our readers that "seeing" something (experiencing it) allows us to explore it but "recognizing" it, placing labels on it (writing about it), halts exploration for a time (Eisner, 1988). As a participant in "seeing" and "labeling" the SIGN process, I join with Eisner when he says, "I hope we will even learn how to see what we are not able to describe in words, much less measure -- I hope we will be creative enough to invent methods and languages that do justice to what we have seen" (p. 20).

Table 3

SIGN Events List: Second-Year Activities, 1990-91

NOTE: In the second year of implementation, the size of the systemwide SIGN almost doubled (1989-90, n=24; 1990-91, n=45). This, and feedback from SIGN participants, led to changes in the meeting format. Time for small group work was maintained as in the first year. Large group sharing, critiques, and presentations by consultants were alternated among meeting dates. Various school planning and improvement initiatives [Strategic Planning, SACS (Southern Association of Colleges and Schools) accreditation requirements] were aligned through the SIGN process.

Date	Facilitators	Topics
9/28/90	Achilles Brubaker Brooks Gaines School Reps.	SIGN background, vision statement, CLDS goals, national perspective on school improvement, team building, school assessment, school project topics.
10/16/90	Gaines Novicki	Alignment of CLDS site-based plans with SACS requirements, school goal development and planning, discussion of portfolios/notebooks for documenting plans and progress, training needs assessment, brainstorming of ways to document achievement of SACS criteria.
11/30/90	Gaines Conard (consultant)	Parent involvement in school improvement teams, school teams planning.
1/18/91	School site facilitators with central office support	Site-based planning.
2/15/91	Gaines Brooks Achilles Novicki	Schools vs. Schooling: A discussion of A Place Called School led by school teams, SACS planning.
3/28/91	Gaines Novicki Sloan	Site-based planning, group planning and sharing, SACS budgeting.
4/20/91	School site facilitators	Site-based planning.
6/6/91	Gaines	Large group sharing (progress reports, written progress reviews of school improvement plans), SIGN overview 1990-91.

CHAPTER IV

DATA ANALYSIS AND RESULTS

Introduction

The School Improvement Groups Network (SIGN) was one vehicle to help implement change and site-based management (SBM) in the Camp Lejeune Dependents' Schools (CLDS) beginning in the 1989-90 school year. Project SIGN grew out of the system's interest in change, the researcher's interest in understanding some aspects of school change, and cooperative work between CLDS and some faculty in the School of Education at the University of North Carolina at Greensboro (UNCG). Project SIGN is primarily about change processes and improvement. As such, it is a continuing event. This study presents findings from the first two years of implementation (1989-91). During the 1991-92 school year the CLDS Administration has stated a commitment to continue SIGN activities with modifications. Data collection instruments are in Appendix B. The investigator also compiled "field notes" as a participant observer in the SIGN process and later discussed these notes with university facilitators. Meeting agendas, minutes, records and continuing events (SIGN meetings, processes in schools to implement improvement plans developed through SIGN) contain the "real stuff" of SIGN (see Appendix C).

The activities and events of SIGN were "treatment" in this study for the teachers and administrators. Tables 2 and 3 (pp. 57 and 59) summarize SIGN sessions and show corresponding dates, facilitators, and major topics and events for each session for 1989-90 and for 1990-91.

This chapter first describes the context and setting in which SIGN was implemented. It then presents data collected and analyzed to address each of the overarching questions around which the study was organized.

Context/Setting for SIGN

The CLDS have a history of excellence and leadership in educational improvement. In 1987-88 and again in 1988-89, a CLDS school was recognized by the US Department of Education as a National School of Excellence. Prior to the initiation of SIGN in 1989-90, the CLDS had already established a team structure at the local school level, engaged in a process of "bottom-up" budget planning starting with the classroom teacher, initiated some strategic planning steps, and developed a pool of administrators through a sabbatical leave program. In addition, previous doctoral research, including that of the superintendent, had explored teacher involvement/empowerment initiatives that had been implemented in the school system (see Appendix F for summaries of this research). The implementation of SIGN, however, was the first direct and organized system-wide effort in participatory site-based management (SBM). The SIGN activity was facilitated by the setting and the receptive mind-set created by the system's previous empowerment projects and close working relationships between CLDS and UNCG.

The CLDS are operated by the United States Department of Defense and the United States Marine Corps in accordance with standards of the North Carolina State Department of Public Instruction. During 1989-91 the school system served between 3500-3800 students K-12. In 1989-90 the system consisted of five primary/elementary schools, one middle school, and one senior high school. In 1990-91, one new primary/elementary school was added to relieve overcrowding, making a total of eight schools. The staff consists of approximately 650 employees, including administrators, coordinators, teachers, teaching assistants, substitute teachers, clerical, maintenance,

and other support personnel. All dependent children who live with their military sponsor aboard Camp Lejeune are eligible to attend the CLDS.

"The mission of CLDS is to provide educational opportunities for military dependent students, utilizing progressive practices, thus enabling students to become successful citizens in tomorrow's global community" (CLDS Mission Statement). Teachers and administrators in the CLDS engage in setting annual goals and objectives and participate in planning budget expenditures through Planning, Programming Budgeting System (PPBS), a budgeting system that provides accurate per-pupil accounting of all costs involved in the education of each child. Teaching teams, teacher advisory groups, and curriculum councils allow teachers to participate in the planning process. Site-based school improvement teams were established in the 1989-90 school year through project SIGN.

The CLDS routinely encourage and implement innovative programs, such as cooperative learning, interdisciplinary teaching, developmentally appropriate practices, writing as a process K-12, and literature based reading programs. Technology is integrated throughout the instructional program. There is a comprehensive school health program for students and a wellness program for staff. At-risk intervention programs have been provided for students whose achievement is below grade level and all entering kindergarten students undergo a comprehensive screening process to identify possible at-risk factors. There are specialized programs for exceptional education students, as well as a full-time program of education for students identified as academically gifted in grades 3-12.

Student achievement outcomes are consistently above the national average. Ninety-nine percent of CLDS students graduate from high school, 75 percent of the

graduates continue their educations immediately after high school, and 55 percent of the 1989 graduates enrolled in four-year institutions of higher education.

The schools, following a neighborhood school concept, are located in or near housing areas on the base, facilitating the CLDS's strong emphasis upon parental involvement. More than 500 parents serve as volunteers in the schools, strengthening all aspects of the CLDS educational program.

There is an on-going professional development program in the CLDS and all professional staff members have career development plans. An active teacher induction program pairs mentor teachers with new teachers and encourages professional development through peer support and collaboration. (The preceding data were taken from a comprehensive summary prepared by the CLDS superintendent in 1989-90 after a brainstorming session with CLDS administrative staff.)

Any discussion of the context of this study would not be complete without the mention of two critical events that occurred in the second year of the study (1990-91). One was the opening of the new elementary school which necessitated major changes for personnel, students, and their families as they moved into new and unfamiliar school and work environments. The second event was the Gulf War (August 2, 1990 - April 11, 1991) which also created significant changes in the lives of all members of this military community. Students, parents, teachers, support and other personnel, all were called upon to deal with the personal and social realities created by the international crisis.

Data for SIGN

In this section, data are provided for each major question guiding the research endeavor. Data-collection instruments, supporting data, and ancillary information appear in the appendices.

QUESTION #1: What is the SIGN approach to SBM and what are its major processes and outcomes as implemented in the Camp Lejeune Dependents' Schools (CLDS) in Camp Lejeune, North Carolina?

Discussion: Figure 2 presents a basic organizing model for Project SIGN as implemented in the CLDS in 1989-90 and 1990-91. Project SIGN is a participatory SBM effort founded upon research in theories of effective inservice, adult learning, situated cognition/cognitive apprenticeship, teacher empowerment/professionalization, and instructional leadership. The project was implemented through a communication/change model that combined both communication and change theory (Figure 2). A primary outcome set by the SIGN researcher was to observe change in schools through the SIGN process of participatory problem identification and solving (Figure 3). The following discussion is a detailed account of initial goal selection and expansion in both years (1989-90, 1990-91) of the SIGN study.

Figures 2 and 3 about here

Initial Goal Selection/Change and Expansion

In October 1989, each of the four SIGN school teams selected an initial goal by the end of the two-day seminar. (Some made changes or added goals as the year progressed.) One task for the higher education consultants was to obtain resources (e.g., bibliographies, prior research, ideas) to help each group. The original goals, by school, are shown in Table 4. Some goal accommodation was evident as teams actively implemented and evaluated their plans. Table 4 also lists some of the changes and outcomes for SIGN efforts at each school in 1989-90.

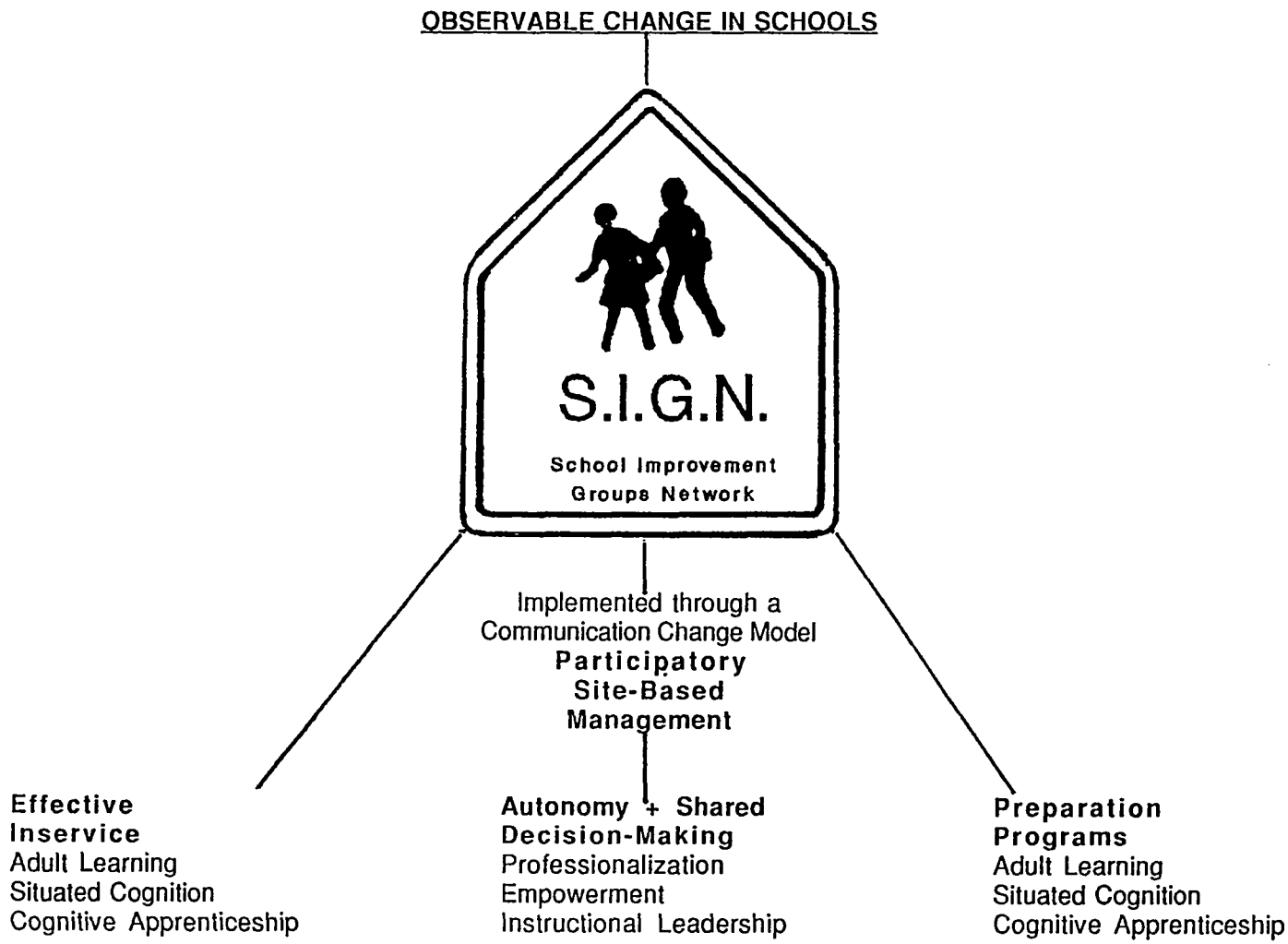

Figure 2. SIGN basic organizing model.

1. PRESENTED PROBLEM SITUATIONS. A problem with a known formulation, known method of solution, and known answer is proposed by someone else and given to the problem solver. (This is the situation most prevalent in schools. Think of all of your classes and subjects. Given that the side of a square is four feet, what is the area?) The person applies technical problem-solving skills.

2. DISCOVERED PROBLEM SITUATION. The problem exists, but is formulated by the problem solver, not by someone else. It may not have a known formulation, known method of solution or a known solution. Why do children at about grade 3 or 4 begin to seem to dislike school when almost all children are initially eager to attend school? Is this an American education phenomenon, or does it exist in other cultures?

3. CREATED PROBLEM SITUATIONS. No problem is evident until someone creates or invents its. An artist creates a painting. A poet expresses beauty through an ode. An advertising artist may be given a problem -- design an illustration for an advertisement. Another artist starts with a blank canvas and proceeds to create a problem which the same artist then moves to solve.

Figure 3. Three categories of problems (excerpted from Getzels, 1979, p. 11) to show one key difference in Problem Solving (Presented Problem) vs. Problem-Finding (Discovered and Created Problem Situations).

Table 4 about here

In 1990-91, all eight schools that comprise the CLDS undertook the goal of writing 5-year school improvement plans. Through SIGN, these school improvement plans were aligned with the Southern Association of Colleges and Schools (SACS) plan for site-based school improvement. The SIGN groups also decided to take this opportunity to align their school improvement plans, as much as possible, with system level goals as well as national goals for education. Appendix G lists national goals for education and Appendix H lists CLDS system-level goals for 1990-91. SIGN participants reported that this alignment helped them to make sense of various planning and improvement initiatives (SIGN, SACS, strategic planning, CLDS system goals, and national goals for education) that had been introduced over the last few years.

Observable Changes/Outcomes

Some SIGN projects resulted in "paper" products. The Tarawa Terrace One (TT1) School had five-year strategic plan at the end of year one. Berkeley Manor had a written statement of expected student outcomes, an "on-the-wall" curriculum, and a written proposal to the superintendent for increased team planning time. Lejeune High School (LHS) had a proposal for a new governance structure involving SIGN. Tarawa Terrace Two (TT2) School had collected data from parents concerning their school's "at risk" program. These products were evidences of observable changes that occurred in SIGN schools in the first year of the study, 1989-90 (see Process Notes below). Table 4 summarizes outcomes for some of the expanded goals for 1989-90.

At the end of year two, Spring 1991, all schools had completed five-year school improvement plans (see process notes below). In most schools, SIGN members became

Table 4.

Summary of Original SIGN Goal for Each School, Goal Revisions, and Some Progress/Process and Results (SIGN, 1989-90)

School & Original SIGN Goal	Goal Refinements and/or Revisions	Selected SIGN Outcomes for Refined/Expanded Goals (by School)
TARAWA TERRACE 2 (TT2) School-based intervention for at-risk pupils; 5 Team members	Establish library and resources for "at-risk" intervention; Parent involvement.	Parent meetings (establishing contact and support). Beginning of an at-risk library (for future use by all teachers/parents). Involvement of other teachers in SIGN and helping them with at-risk cards (increasing support and knowledge of all teachers).
LEJEUNE HIGH SCHOOL Setting high student expectations; Grades 9-12; 6 Team members.	Communication; Governance shared decisions.	Presentation to faculty meeting (introducing the idea). Team meetings attended (selling the idea). Meeting with Dr. Brubaker and Dr. Hager (clarifying positions).
TARAWA TERRACE 1 (TT1) Plan for comprehensive school improvement; Grades K-2; 7 Team members (Refine plan for National Recognition).	Plan for school change from K-2.	Application for school of excellence (self-study). Meeting with Dr. Sloan and proposal for remaining K-2 (change, negotiation). Trips to the school in Durham (networking with other schools, sharing knowledge about developmental classes).
BERKELEY MANOR A means to communicate among grade levels re: curriculum; Grades K-4; 4 Team members.	Plan ways to get staff time for expanding SIGN-type in-science.	Explorations-Supermarket Science (introducing the idea about team planning time; negotiation with other teachers; hands-on learning about change). Information from other schools about "early dismissal" (from the local system to the big picture).

committee chairpersons of the various areas of school improvement. All faculty and staff members, as well as student and parent representatives in some cases, became committee members. Committees in most schools developed notebooks or portfolios in which to document plans and evidences for each area of school improvement. These notebooks sometimes included computer disks to facilitate updating and recording progress. A schedule for regular SIGN meetings was established in most schools during 1990-91.

Process Notes

SIGN was primarily a study of processes, and secondarily a study of products. Outcomes of SIGN, for school operation and for identifiable changes, were apparent and analyzed. At three points during the two years of the study (12/89, 6/90, 3/91) participants responded to five open-ended questions on a "SIGN Progress Report." A summary of the five questions and the numbers of responses are shown in Table 5.

Table 5 about here

The researcher reviewed and categorized the responses. Some items received more than one response on a response sheet. In December 1989 some teams compiled the ideas into one response sheet; in June 1990, each respondent chose to do a single response sheet; and in March 1991 representatives from each SIGN group completed response sheets. For ease of comparison, Table 5 shows both the number (n) of responses and the rounded percents (%) based on the 12/89 responses (n=7), the 6/90 responses (n=21), and the 3/91 responses (n=18).

Generally, at all response dates, the groups and individuals had positive regard for SIGN. Consistently positive comments were made about the mix/structure of the

Table 5

Summary of SIGN Progress as Reported in 12/6/89 (n=7), 6/6/90 (n=21), and 3/1/91 (n=18) by Responses to Five Open-Ended Questions. (Questionnaire is in Appendix B-4).

Questions	Value	Response Category Summary (some examples included)	Number & Percent of Responses* 12/89 (n=7) n	%	6/90 (n=21) n	%	3/91 (n=18) n	%
1. Structure of School Teams	Positive	Worked well, good	2	25	4	20	5	24
		Good mix (adm., etc.)	5	63	11	52	9	43
		Each grade level incl.	1	13	6	28	-	-
		volunteered					3	14
		Not by departments					1	5
		Combined elected & carry-over members					3	14
	Negative	Select. process (elect vs select)	1	25	1	10		
		Adm. dominance/more open	2	50	-	-		
		Adm. should attend	1	25	-	-		
		Overlap with CORE	-	-	4	40		
		Must have OK mix	-	-	5	50	3	60
		Misc. changes					2	40
2. Structure of Large Group	Positive	Good mix/structure	6	86	15	60	3	60
		Good communication	1	14	8	30	2	40
		Fun	-	-	2	10		
		"Univ. added breadth; adm. dropped in and added; Learned new ways of organizing and working."						
	Negative	Should be one level (Elem)	-	-	1	33	-	-
		Need more time/better mix	-	-	2	67	2	100
		Repetitious	1	50	-	-		
		More univ. persons	1	50	-	-		

*On 12/6 most teams turned in one consolidated sheet; on 6/6/90 each individual chose to submit a form; and on 3/91 representatives from each group completed forms. (This may say something about personal growth and security.) Researchers developed categories through content analysis. Percents are based on responses for positive and for negative, not on respondents, and may not equal 100 due to rounding. Respondents were n=7, 21, 18; not all categories elicited responses; some had multiple responses.

Table 5 continued

Questions	Value	Responses Category Summary (some examples included)	Number & Percent of Responses 12/89 (n=7) n	%	6/90 (n=21) n	%	3/91 (n=18) n	%
3. Meeting Format	Positive	Good. 2-day was great	5	50	13	36	-	-
		Always from school	5	50	14	39	5	24
		Allows communication/sharing	-	-	9	25	1	5
		Adds to planning time for school improvement					12	57
		Day long meetings					1	5
		Topics					2	9
	Negative	More time for invid. work "Fewer lectures"	2	100	2	10	1	9
		More flexible meetings					8	73
		Routine meeting time					1	9
		Occasional univ. interaction					1	9
4. Functions of Your Team	Positive	Identify goals	5	63	-	-	4	18
		Accomplish goals	2	25	11	38		
		Good goals	-	-	5	18	-	-
		Teamwork. collaboration	1	14	10	34	15	68
		Evolving process	-	-	3	10		
		Volunteered for committee	-	-	-	-	2	9
		Ideas getting out	-	-	-	-	1	5
	Negative	Overlap with CORE team already in place	2	50	3	50		
		Difficult to achieve/implement goal	1	25	3	50		
		Misc: Encourage more interaction with CO, Need more inservice	-	-	-	-	5	100
5. Function of Large Group	Positive	Feedback/support	5	56	14	48	2	11
		Idea sharing	2	22	15	52	8	44
		Getting better (evolving)	2	22	-	-	1	5
		Good relevant topics					3	17
		CO staff, professors help groups					1	5
		Indiv. school time important					1	5
		Effective					2	11
	Negative	More interacting among groups	-	-	3	100	-	-
		More variety in speakers					3	60
		More small group time					1	20
		More spec. feedback (assign a CO person or professor to each group)					1	20

group and about the meeting format (especially uninterrupted meetings away from school). The participants also made consistently positive comments about the communication, support, feedback, idea sharing, teamwork, and goal accomplishment. Of particular interest were comments (mostly positive) that reflected strengths of SIGN as an inservice strategy [relative to Daresh and LaPlant (1984) guidelines for effective inservice] and the value of including the administrator in the group. The comment, "We need the administrator present to do this because of the knowledge/expertise she has re: policy. . . ." expresses the view well.

SIGN School-by-School Results: 1989-1990

In year one, 1989-90, the four participating school teams each selected an improvement goal based on the needs identified in their schools. These goals and outcomes are summarized below.

Berkeley Manor

The Berkeley Manor SIGN team's original goal was to develop an "on-the-wall" curriculum to facilitate communication about expected learner outcomes. Working with established teacher teams in the school, they achieved this outcome. The team found that their project anticipated a system-wide goal that was implemented during the school year. All seven schools in the system developed learner outcomes that were consolidated into a system-wide document. The Berkeley Manor Team reported that both teachers and students benefitted directly from a clear definition of learner expectations. An unexpected outcome of the SIGN project at Berkeley Manor was that the team members realized the need for shared planning time to complete the learner outcomes project. This lead to an immediate solution proposed by the Special Areas Team in the school that resulted in a "Supermarket Science" exploratory for students. The exploratory gave teachers the planning time they needed to complete the learner outcomes project. In

addition, the SIGN team researched and developed a proposal for an early release time for planning purposes. The team would have benefited by having more members and by increasing the awareness of SIGN in the rest of the school faculty. The team felt that released time for participants away from the school site was an essential part of the SIGN project.

Lejeune High School

Lejeune High School SIGN members sought to implement a new, more participatory structure for planning and governance at the school. By year's end the team had communicated the goal and established support for the project. A body of teacher participants was elected and, with the principal and assistant principal, received training in consensus building. The SIGN team struggled with this ambitious project throughout the school year and experienced feelings of uncertainty and frustration with difficulties they encountered. The members gained first-hand experience with how change occurs in an organization and are now aware of the considerable progress they made. They have a solid beginning for the next school year and would like to see greater involvement of the administration in the team's activities. The team reported that teachers in the school benefited by an improvement in morale and that students, parents, and teachers will benefit more when the committee is in operation. They would improve their committee by increasing the administration's confidence in their decision making skills and by reducing the political aspects of implementing change. Essential components of the SIGN process were: time to develop trust among members; freedom to have off-site meetings; continual feedback to the faculty; and openness of discussion among members. A significant outcome of SIGN was that it became institutionalized in CLDS. The LHS team learned that communication is a key element in a small-group environment.

Tarawa Terrace 1

TT1's goal was to develop a five-year comprehensive school improvement plan. The team started with a self analysis/needs assessment and ended the school year with the written improvement plan. They came to SIGN with a strong sense of purpose and prior experience working together. Camaraderie was high and the principal functioned as a strong leader in this group. The team morale remained high even when some of their recommendations were not approved by the central administration. They learned that the superintendent is open and receptive to proposals although he may sometimes reject them in the interest of broader, system-wide considerations. The team also learned about collaboration and planning on both the school and system levels. They used the self-knowledge gained through SIGN to improve their school's climate by an increased emphasis on wellness. They planned a professional library for the school. TT1 SIGN felt that university support and released time away from school were essential project components. They discovered that developing a five-year plan is an overwhelming task. Another unexpected result of SIGN was that a teacher in the school who was not on the SIGN team started a student school improvement team to survey staff and other students in this K-2 school about needed improvement.

Tarawa Terrace 2

TT2 School's goal was to prevent the academic failure of students at risk. This goal grew out of work the previous year with the TT2 CORE team. Through SIGN, the team identified students at risk, completed referrals on these students to the CORE team, and planned intervention strategies. They successfully involved other teachers in the school an approved in-service workshops on at-risk interventions. They held three parent meetings to increase parent awareness and involvement. The SIGN team was happy to discover that they could use SIGN money to start a professional library of

materials on at-risk students. Dr. Rita O'Sullivan at UNCG provided the initial list of materials. Testing in the spring revealed a lower percentage of at-risk students than in the previous fall. The SIGN team reported that student achievement resulted in improved self-esteem. Some students were removed from the at-risk classification. Parents grew through increase knowledge of their children and had a stronger feeling of usefulness. The System benefited from progress toward its goal of improved student achievement. The TT2 SIGN team felt that they would have benefited from more knowledge of SIGN objectives prior to goal selection so that SIGN and CORE committees would not overlap. They reported that open communication and wide representation of teachers (grade/area) were important SIGN components. The team was especially gratified at the depth of parent interest in the at-risk program and at the bonds and communication established between parents and students. Although TT2 had reservations about the overlap of SIGN and CORE, the result of their effort was wide involvement of parents, teachers, and students in the at-risk project.

SIGN School-by-School Results: 1990-1991

All schools in the CLDS developed five-year school improvement plans in the second year of SIGN. Major goals and results are summarized below.

Berkeley Manor

In year two of the SIGN project in the CLDS, the leadership of Berkeley Manor School changed and the new principal brought with her a rich background in strategic planning and school improvement. The school's site-based school improvement plan became more formalized with stated objectives and action steps for each goal. Goals in 1990-91 related to teacher and student morale, professional growth of the staff, parental participation, curriculum development, and school curriculum and program evaluation. Berkeley Manor's SIGN team felt that everyone in the school community

benefited from work on the school improvement plan. Curriculum changes improved the communication of expectations from teachers to students. Planning of future improvement goals was facilitated by staff involvement and surveys. Student and faculty morale was improved by the campus and building beautification efforts. The team members felt that the biggest obstacles they faced were finding time to get together to work on goals and a lack of a shared understanding of SIGN's purpose for their school. They felt that their work was facilitated by PTO support and by released time on campus to work with their committees. They learned that school improvement "ain't easy," that it takes time, and that it is a developmental process requiring the support of the entire staff. They were surprised by the difficulty they faced in getting people actively involved and by the enthusiastic reaction of students when asked to participate in school improvement efforts.

Brewster Middle School

Brewster Middle School entered the SIGN process in the 1990-91 school year facing many changes and challenges. The sixth grade level had been added to the school bringing approximately 270 new students and the teachers needed to instruct them. The school had moved to a different building in the CLDS, the former Lejeune High School building. There was also a change in the leadership of Brewster with a new principal and assistant principal joining the staff of the school. The principal came to the position with prior SIGN experience as the principal of TT1 during the previous year. The principal and SIGN team established a timeline at the start of the year. During the first semester of school they would deal with immediate issues resulting from the many changes in the school, and during the second semester they would focus on long-range planning. Goals for the school grew out of the Middle Grades Assessment completed in the previous school year. Major goals areas were discipline, communication, school

climate, the added sixth grade level, and the new facility. The SIGN group worked out the logistics of moving into the new facility and developed a report entitled "The Move" that delineated the tasks and the persons responsible for each task. In the areas of discipline and communication, concerns related primarily to the combination of a new leadership style, new faculty members and the new sixth grade level. By meeting with the three grade level groups of teachers, the SIGN committee developed a list of concerns on which to focus. School climate goals related to class schedule problems that were affecting morale. Within the first few weeks of school the SIGN group advised the principal that the school must have a new schedule that would begin at the second nine weeks rather than at the second semester. The SIGN committee worked on their own time to come up with a plan that they presented to the faculty. With few reservations, the faculty accepted the SIGN committee's plan and it was implemented successfully at the beginning of the second nine weeks of school. To facilitate the adjustment to the new sixth grade level, the principal and assistant principal initiated a process of gradual "indoctrination" in middle school organization for the faculty and staff. Brewster SIGN group felt that the SIGN process benefited everyone in the school community because it allowed the communication necessary to develop a shared understanding of the many changes faced by the faculty and staff. In her own words, "You know how important communication is!" The team leaders who made up the SIGN committee had the opportunity to communicate with each other and felt a true sense of empowerment in the school improvement effort. This encouraged their communication with their team members because they realized that every person was needed in the process. Parents and students benefited due to clarified expectations, especially in the area of discipline. The SIGN team observed that everyone came closer to a shared understanding on the new approach to discipline in the school. The biggest obstacles faced by the Brewster SIGN

team were time, new staff members, the new facility, the change in administration, and access to substitute teachers on SIGN days. The team was assisted in the school improvement efforts by having the Middle Grades Assessment to build upon, the meetings away from the school site, the SIGN site coordinator, the SIGN project director (from UNCG), and the increased access to the CLDS superintendent on SIGN days. A major outcome of the SIGN process was that it provided the opportunity and setting for representatives from Brewster Middle School and Lejeune High School to begin a dialogue with each other about issues critical to students as they move through the CLDS, specifically those moving from the Middle School to the High School.

The Brewster SIGN team learned that it was important to talk about overarching issues but that school improvement efforts must then be focused and specific. The principal reported that it is like working with a student. You must look at the whole student and determine what the needs are. Then you must decide upon the specific steps required to meet those needs. The Brewster SIGN team also discovered the importance of communication in school improvement efforts. They recalled a comment from a SIGN meeting that "you can't keep school improvement a secret" and they felt strongly that constant monitoring and feedback is required to ensure that the improvement team is carrying out the intentions of the school community. The most unexpected outcome of the SIGN process for Brewster participants was that the SIGN group became such a powerful agent for change. As a result of this "empowerment," SIGN members came back to school during the Summer on their own time and rewrote the affective school curriculum and provided inservice for teachers in the Fall. The Brewster SIGN members valued their SIGN leadership opportunity and the principal reported that she "loved it and would do it again." The strong system-level support given to the SIGN process was another unanticipated discovery by the Brewster SIGN group.

Delalio Elementary School

Delalio Elementary School entered the SIGN project in 1990-91 with experience gained from the school's participation in another improvement project, the Consortium for the Advancement of Public Education (CAPE). Delalio participants developed improvement goals according to the five areas suggested by the Southern Association of Colleges and Schools (SACS) site-based school renewal and accreditation process. These areas are school climate, planning, staff development, curriculum and instruction, and communication. The Delalio SIGN team reported that all staff, parents and children of the Delalio community have benefited from the school improvement effort there because their input has been used to make decisions. The team feels that the curriculum, the decision-making process, and the ability of school personnel to meet student needs have been enhanced by innovations growing out of the goal development process. The team reported that time and space were the biggest obstacles that they faced in working toward school improvement. Their school improvement process was facilitated by time provided for SIGN meetings as well as time provided by setting aside some staff meetings for school improvement work. The enthusiasm of participants contributed to a successful joint venture. Through the SIGN process the team discovered that successful school improvement requires administrative support, cooperation from all staff, an understanding of the concept of school improvement, the time to work together on planning and implementation. The Delalio team did not anticipate the difficulty that they would face in convincing the staff that everyone was on a committee and that they were all working on goals for school improvement.

Lejeune High School

In 1990-91 Lejeune High School SIGN participants chose to continue the school's improvement plan under the three categories identified in 1989-90, school climate and

communication, higher expectations, and research-based progressive practices. Team members found that they could fit all five SACS areas of improvement into these three goal areas. The team reported benefactors of work toward these goals as follows: (1) the director of instruction benefited by accepting the leadership of teachers in meeting goals; (2) the teachers benefited by achievement of a more positive work environment and increased teacher empowerment; (3) students benefited by receiving better instruction from teachers, more student involvement in decision-making, and more opportunity to take a wide variety of classes due to projected scheduling changes; (4) parents benefited by contributing more input to school decisions, receiving more information about decisions, and having access to more academic information on students. The biggest obstacles facing the LHS SIGN team were time, inconsistent parent involvement, and identifying SIGN team members who were representative of the student body and the entire community. LHS school improvement work was facilitated by meeting away from the school site during regular school days, assistance from university contacts and the site coordinator, survey results, a suggestion box, and small group consensus-building sessions. The LHS SIGN team learned that working for school improvement is challenging but rewarding, that it builds leadership, that it is exhausting and requires patience, that it is a slow process, that consensus decisions are better than voting, and that it is desirable to anticipate the perception of ideas by the faculty. This team, like those in some of the other schools, was surprised to learn of the students' desire to be heard. They identified a need to nurture qualified student representatives.

Russell Elementary School

Russell Elementary School joined both the CLDS and the SIGN project in 1990-91. The school was established in the Summer of 1990 to relieve overcrowded

conditions in the CLDS elementary schools. The new principal brought with him a background of study in teacher empowerment and shared decision making. The faculty and staff had the rare opportunity and challenge of "creating" a new school setting and the goals chosen by the Russell SIGN team reflected this opportunity and challenge. The goals were: (1) to reach a comfort level with personal and system-level expectations, specifically with regard to whole language, math assessment, the science curriculum, and decision making by faculty members; (2) to cultivate positive home/school relationships; (3) to explore school reforms and restructuring. The SIGN team reported that the entire school community benefited from the work on school improvement goals. The biggest obstacle faced by the Russell team was establishing a direction since it began with no school improvement plan at all. The team's work on improvement goals was facilitated by the administrative support that they received and by the background and experiences brought to the group by the various team members. They learned that organization was the key to their success, that peers appreciated their ideas and effort, and that "no one of us is as smart as all of us." They were surprised by the parental appreciation that they received by the end of the year since some parents had been outspoken critics of the student transfers necessitated by opening a new school.

Tarawa Terrace One School

The Tarawa Terrace One School community faced many changes in the 1990-91 school year. The new principal was a former assistant principal of the school but was in her first year as a school principal. TT1 had been restructured from a kindergarten through second grade school to include third and fourth grades, resulting in approximately one half of the faculty, student body, and parents being new to the TT1 school community. The SIGN team was fortunate to have the five-year plan developed in 1989-90 from which to build their new and revised goals for 1990-91. The team

recognized the many changes in the school and selected three major goal areas as follows: (1) to improve the professional treatment of teachers through alternative evaluation, time for personal and professional growth, site-based staff development, the SIGN process, and the parent advisory group; (2) to improve instruction and student learning through cooperative planning by teachers, cooperative learning approaches for students, instructional technology, a new third and fourth grade curriculum, CLDS learner outcomes, developmentally appropriate practices, whole language, NC Communication Skills and Mathematics Assessment, and a restructured K-3 gifted program; (3) to review programs and curricula and to insure compliance with the SACS alternative method of school accreditation and the CLDS restructured exceptional education program. The TT1 SIGN team felt that everyone in the school community benefited from the school improvement work. According to the principal, "We had new needs and we needed more soul-searching. Some things that were said hurt but the process had to come. Everyone benefited because we well all able to voice what needed to change." The SIGN team saw clearly how to look at the five areas for school improvement outlined by SACS through the SIGN planning process. Any need that they identified could be placed under one of the SACS areas and SIGN provided the planning time, communication, and networking to get the job done. The SIGN team acknowledged that school improvement "just doesn't happen in thirty minutes before or after school" and that the time away from the school site was crucial to the success of the school improvement process. A benefit recognized by the school principal was evident when she said, "Another thing that happened through this process, I can't tell you when it happened, but it doesn't bother me anymore when it's not my idea." She went on to liken the shared leadership process to cooperative learning, "Sometimes you're the cutter, sometimes the pastor or encourager, but you're all working for the same things." Obstacles faced by the team were the restructured school

(new principal, teachers, students, parents, grade levels), the Gulf War, time, and the logistics of having faculty away from school on SIGN days. They were assisted in their work on school goals by an expert consultant on strategic planning and by SIGN days that allowed sharing, communication, and motivation. According to the principal, "Without SIGN system-level meetings, It's like going to a movie and coming back and telling the faculty and staff about it. You can include all the facts but so much is lost. With SIGN you don't lose as much because more people are involved in telling the story." The TT1 SIGN team learned that "the team is not as important as the voices of the people they represent" and that "if you let the expressed needs drive what you are doing, the job is easy." They also learned that everyone in the school should work toward the same goals and that this is facilitated by the development of a shared understanding made possible by cooperative planning. Team members were surprised at the intensity of the commitment and involvement they felt in the school improvement process. The principal reported that the team came up with solutions and volunteered to do things that she would never have asked for.

Tarawa Terrace Two School

The Tarawa Terrace Two SIGN team established goals in four areas: (1) the instructional program; (2) instructional technology; (3) the physical plant; (4) communication between parents, school, and community. Based upon training in strategic planning, the improvement plan included objectives and action steps, starting and due dates, persons responsible for each action step, and the documentation of evidence to support each step. TT2 participants reported that work toward their goals benefited the school system by integrating goals from various initiatives (SACS, CLDS systemwide goals, local school goals). Faculty and staff benefited by the collaboration and participation that occurred as they developed goals and strategies. Students benefited

by the emphasis placed on several new instructional programs that increased active learning and student achievement. Home-school communication increased and parents became more involved in the education of their children. The TT2 SIGN team had difficulty finding a common meeting time for the individual committees in the school. They reported that their work on school goals was facilitated by "SIGN Days," the assistance and guidance of the site coordinator, the experience gained from the CLDS Strategic Planning Retreat held in the Summer of 1989, the presentation of updated information to staff, and the enthusiasm and cooperation of the faculty in developing strategies. The team learned that "school improvement can be obtained through hard work, organization, planning, patience, and collaborative efforts." When asked to describe unexpected outcomes/learnings from their work on school improvement, the SIGN team members reported that they were surprised by the smooth transition of TT2 from a third through sixth grade school to a kindergarten through fifth grade school. They were also surprised to find that the faculty accepted leadership and guidance from the SIGN committee and that new faculty members accepted goals that were established by the former TT2 SIGN team.

Stone Street School

The Stone Street School improvement committee was eager to join the system-wide SIGN process and to continue their already established site-based planning in collaboration with the other schools. The team established goals in six areas: (1) the integration of technology into all areas of the curriculum; (2) literature-based reading; (3) alternative methods of student evaluation; (4) cooperative learning; (5) wellness; (6) development practices. The Stone Street team included the active participation of parent representatives and a teacher assistant. By the end of the school year, the SIGN team reported that goals in three areas (literature-based reading, cooperative learning,

and developmental practices) had been completely met and that these areas would be replaced with new goals and new leadership in the 1991-92 school year. Goals and leadership in technology, alternative evaluation, and wellness would be ongoing in the 1991-92 school year. The Stone Street SIGN committee observed that all members of the school community (students, teachers, parents, and the entire school system) benefited from the SIGN's school improvement work. Communication has been extended between staff, students, and parents. The concept of student evaluation has been broadened and enriched. The curriculum is becoming more and more student-centered. Teachers and parents are being educated in new practices. Literature and technology are being integrated into all curriculum areas. Through cooperative learning, students are learning to use their strengths, to practice problem-solving techniques, and to engage in positive interactions between peers and other grade levels. There is an increased awareness of the "wellness philosophy." Like SIGN teams in other schools, the Stone Street SIGN reported that their biggest obstacle to school improvement work was time to plan and share. They were assisted in their efforts by the monthly system-wide SIGN meetings, by the expertise of their staff, by the organization and communication of ideas by the school's SIGN secretary, and by the organization and focus provided by the SIGN site-coordinator. The most important things learned by the Stone Street SIGN about working for school improvement were the value of shared decision making and the sharing of highlights and progress by each school at the system level SIGN meetings. They had not anticipated the importance of meshing in-school leaders (team leaders) with the SIGN leaders.

QUESTION #2. How does the SIGN approach to implementing participatory SBM in a school system compare to the communication/change model proposed by Achilles and Norman (1971) and Achilles (1986, 1988)?

Discussion. An overarching goal of Project SIGN was to facilitate change in participating schools, in inservice processes, in decision making, and reducing teacher isolation and increasing the professionalism of the education staff. In addition, through Project SIGN activities the researcher was to study the use and efficacy of a team approach to planning and decision making that included teachers and administrators supported by university educators, consultants, and other stakeholders in the local schools (parents, para-professionals, community professionals, etc.). Thus, SIGN was based on a change model structure that combined both communication and change theory. Figure 2 (p. 67) represents this basic organizing model and presents a three-step or three-stage approach to change (dissemination, demonstration, diffusion) employing various communication processes in support of the change. A fourth step or stage, in continuing application and development occurred in year two of the SIGN study. The dissemination, or Level I, stage allows and encourages participants to become aware of and build interest in the new idea primarily through large-group processes and mass (impersonal) one-way communication. This is primarily a cognitive activity so that participants learn about or gain a conceptual control of the new way. At the demonstration, or Level II, stage participants evaluate and test the new idea or process through observation/sharing/participating in small groups using question and answer and two-way communication steps. Participants gain skills in the new way in Level II. In the diffusion, or Level III (adoption/adaptation), stage the participants accept and use the new idea/process as part of daily operations (institutionalization). Communication at the diffusion stage is two-way, one-to-one, and often borders on peer support, coaching and sharing with problem finding/solving and improvement as the focus. Appendix I is a partial listing of reading materials provided to all SIGN participants (a dissemination, or Level I, strategy). Additional materials were provided to participants

who requested research that was related to their school projects. Participants also brought and shared materials at SIGN meetings and the CLDS superintendent provided two books on school improvement to participants (One School at a Time, A Place Called School). Figure 2 (p. 67) provides the theoretic considerations of the change process model employed in the implementation of project SIGN. Appendix J-11 expands the concepts from Figure 2 and details the implementation of SIGN in the CLDS following this communication/change model. Data relevant to SIGN as a vehicle for change were collected through observations and from responses by participants to questionnaires (Appendix B). These data are presented below and give evidence of the effect of implementing SIGN through a communication/change framework.

Results

SIGN questionnaires provide numerous evidences of changes in perceptions of participants concerning school improvement, collaboration and decision making. Perhaps one of the most significant changes was in the difference between how SIGN participants felt that things "are" in the CLDS as opposed to how they "should be." Questionnaire 2 (Appendix B) asked participants to rate their level of agreement to pairs of questions about how things "should be." Questions covered site-based decision making, positional authority of the principal, various levels and types of collaboration (teacher/administrator, different grade or subject level collaboration, collaboration among schools, and collaboration between school and university personnel), instructional leadership of the principal, and shared-decision making. Questionnaires were completed by SIGN participants in October 1989 and again in June 1991. For all topics covered except two (positional authority of the principal and the role of teachers in helping principals learn strategies for instructional leadership), results of this questionnaire showed a dramatic change in SIGN participant responses over the time

from October 1989 to June 1991. Responses in June 1991 indicated that participants felt that things in the CLDS were much closer to where they "should be" than they had been in October 1989 (see Table 6). The two exceptions to this result were both in areas that related to the role of principals. In October 1989, 77% of SIGN participants felt that principals should maintain positional authority while 73% felt that their principal did maintain positional authority. In June 1991, 73% of SIGN participants felt that principals should maintain this authority but only 55% felt that their principal did this. With regard to the teachers' role in helping principals learn strategies for instructional leadership, the difference between the "should be" and "is" perceptions of SIGN participants did not change between October 1989 and June 1991. However a higher percentage of participants in June 1991 felt that teachers were important in helping principals learn these strategies (96% in 1991 and 84% in 1989). This may say something about teacher empowerment and how teachers view the importance of their role in being a resource for principals.

Table 6 about here

The remaining questions are those pertaining to SBM, collaboration, instructional leadership, and teacher empowerment. These results will be examined in greater detail in the following sections that deal with these topics.

Results of Questionnaire 3 (Appendix B-3) give further evidence of changes that occurred in participants' perceptions during the first two years of the SIGN process. (See Table 7 for a summary of results to Questionnaire 3). In 1989-90 and again in 1990-91, participants listed communication and facilities as the most important areas that they would choose for school improvement. Both of these areas relate to "milieu,"

Table 6

Pre/Post Comparison of SIGN Participants' Responses to the Ideal and the Actual State of Selected Issues of the Study: 10/89 and 6/91. (Questionnaire in Appendix B-2.)

Pre: 10/89				Post: 6/91		
"Should" Ideal	"Is" Actual	Difference		"Should" Ideal	"Is" Actual	Difference
94%	67%	27%	Decisions made at school level	94%	84%	10%
77%	73%	4%	Principal maintains positional authority	73%	55%	18%
100%	72%	28%	Teachers/administrators collaborate at my school	100%	93%	7%
100%	50%	50%	Collaboration occurs frequently among different grade levels at my school	100%	70%	30%
100%	72%	28%	Collaboration occurs frequently among different subject areas at my school	100%	80%	20%
94%	56%	38%	Principal functions as instructional leader	95%	86%	9%
100%	78%	22%	Teachers plan school-wide improvement goals.	100%	96%	4%
100%	53%	47%	Educators from my school collaborate with educators from other schools	93%	67%	26%
100%	22%	78%	School staff collaborates with university personnel	89%	49%	40%
84%	59%	25%	Teachers are important in helping principals learn strategies for instructional leadership	96%	71%	25%
89%	50%	39%	Principals are important in helping teachers learn decision-making skills	100%	75%	25%
N=18*				N=45*		

*Note: Differences in N are due to the increase in the number of participants in the second year (1990-91) of the study. This increase resulted from the project being extended to include all CLDS schools in year 2.

one of the five commonplaces, or areas, for school improvement listed by Haller and Knapp (1985). The change in 1990-91 was that curriculum also appeared among participants' responses as one of their most important areas for school improvement. This may indicate the establishment of a comfort level in the area of "milieu" after the first year and the freedom to focus on improvements in curriculum and instruction in the second year.

Table 7 about here

When listing the most important barriers they faced in making school improvements, participants most often listed time, bureaucracy, lack of shared decision making (SDM), and fear of the power structure in 1989-90. In 1990-91, money and time were listed as most important. Bureaucracy, lack of SDM, and fear were not listed as most important barriers in 1990-91.

In 1989-90 and again in 1990-91, participants reported that administrative staff were the most influential in improving school, with those listing administrative staff growing from 63% in year one to 74% in year two. Although participants saw administrators as more influential in improving schools during both years of the study, changes did occur in who participants saw as sources of decisions and problem finders in the schools. Administrators were most often rated as most important sources of decision in 1989-90 but teachers gained the lead in this category in 1990-91. Also by 1990-91, SIGN (5%) and students (3%) were listed by participants as the most important sources of instructional decisions in the schools. Neither of these sources had been listed in 1989-90. In the category of problem-finders in schools, teachers remained essentially the same for both years while those listing administrators in this category

Table 7

Comparison of Responses Ranked as "Most Important" by SIGN Participants in Year 1 and Year 2. (Questionnaire is in Appendix B-3.)

	n=18* 1989-90	n=45* 1990-91
1. Areas participants would for school improvement	Communication, Facilities, Morale	Facilities, Curriculum Communication
2. Barriers Participants faced in making school improvements	Time, Bureaucracy, Fear, Lack of SDM	Money, Time
3. Most influential staff members in improving schools	Administrators 63% Teachers 37%	Administrators 74% Teachers 26%
4. Characteristics of effective inservice programs	Relevance, Teacher involvement	Relevance, Teacher involvement, Site-based
5. Barriers to SDM faced by educators	Time, Not enough teacher involvement	Time, Poor/pseudo SDM
6. Areas in participants' schools appropriate for SDM	Curriculum, All scheduling, Budget, Discipline	Curriculum, All Scheduling, Budget, Discipline
7. Areas in participants' schools NOT appropriate for SDM	Confidential or personnel issues; Individual classroom or professional issues.	Legal, confidential or personnel issues; None; administrative or immediate decisions
8. Sources of decisions about instruction in participants' schools	Administrators 47% Teachers 35% Outside sources and other 18%	Administrators 42% Teachers 50% SIGN & students 8%
9. Problem-finders in participants' schools	Administrators 53% Teachers 47%	Administrators 38% Teachers 45% SIGN/all staff 17%
10. Issues on which principals should have "veto" power	Lack of agreement in responses. No clustering around areas mentioned. Many areas suggested.	Policy, legal, personnel 25% Student welfare 18% All areas 8% Unresolved conflicts 8% Others (less than (5% each) 41%

*Note: Differences in N are due to the increase in the number of participants in the second year (1990-91) of the study. This increase resulted from the project being extended to include all CLDS schools in year two.

decreased from 53% in 1989-90 to 38% in 1990-91. SIGN was listed in this category in 1990-91 by 15% of participants.

Responses to questions relating to inservice and SDM showed little change between 1989 and 1991. One exception to this was that participants added "site-based" to their list of most important characteristics of effective inservice in 1990-91. Also, in 1989-90 participants felt that too little teacher involvement was a barrier to SDM while in 1990-91 they questioned the quality of the SDM (poor, or pseudo SDM) but not the quantity of SDM opportunities available to them.

Change was also evident in how participants viewed the issue of "veto" power by the principal. In year 1989-90, responses by participants showed little agreement with no clustering around any of the areas listed as those in which the principal should have "veto" power. In 1990-91, however, responses did show clustering. Twenty-five percent of the participants felt that there were no areas appropriate for "veto." Another 25% felt that policy, legal, or personnel issues were appropriate for principal "veto." Eighteen percent felt that issues of student welfare were appropriate for principal "veto." Eighteen percent felt that the principal should have "veto" over all areas, and another 8% felt that the principal should be called upon to settle unresolved conflicts. The remaining participants, fewer than 5% each, listed the following issues as appropriate for principal "veto": discipline, home-school matters, curriculum, schedules, and issues that conflict with system level goals.

QUESTION #3. How does the SIGN approach to inservice compare to the characteristics of effective inservice suggested by Daresh and LaPlant (1984)?

Discussion. The SIGN process was a demonstration of a new type of inservice which met the characteristics outlined by Daresh (1987) (see Appendix J-12). The SIGN emphasis was on continuity, making inservice an ongoing process rather than a one-shot

event. SIGN participants accomplished major goals through a series of "gameplans" (Keedy, 1988) and by sharing progress among groups. In 1989-90, the SIGN group worked on site-specific goals, often seeking ideas and resources from their higher education partners. SIGN teams expanded their impact by taking ideas back to other faculty, inviting faculty to visit SIGN meetings, and by presenting their ideas to the CLDS central administration.

Results

Questionnaire 3 (appendix B-3) asked participants to list characteristics that they felt were important to effective inservice. In 1989-90, relevance and teacher involvement were listed as the most important characteristics by SIGN participants. These characteristic are consistent with those suggested by Daresh and LaPlant (1984) and Daresh (1987). They relate to items 1, 2, 3, 4, 8, 9, and 10 in Appendix J-12. In 1990-91, participants added the category, "site-based," to their list of most important inservice characteristics. This, too, is consistent with the findings of Daresh and LaPlant who state that inservice is effective when it is directed to local school needs and is developed by participants.

When asked to compare the SIGN approach to inservice to traditional approaches (Appendix B-1), SIGN participants in both years of the study most often listed relevance, participation, and collegiality/collaboration as characteristics that differentiated between SIGN and traditional approaches (43% of responses in 1989-90 and 67% of responses in 1990-91). Other factors listed were the meetings held away from the school site to prevent interruptions (20% of responses in 1989-90 and 2% of responses in 1990-91); the site-based focus of SIGN inservice as opposed to a one-shot activity (10% of responses in 1989-90 and 7% of responses in 1990-91); and the

released time and other support provided by the central office (10% of responses in 1998-90 and 9% of responses in 1990-91).

In year two, one principal participant who supported the SIGN process nevertheless noted that SIGN lacked the focus of traditional inservice. This same participant also pointed out that SIGN was a time-consuming planning process in addition to being a vehicle for inservice. Another principal reported that SIGN may not be the most efficient means for school improvement but that it is the most effective.

QUESTION #4. How does the SIGN approach to teacher empowerment/professionalization compare to the Teacher Collegial Group (TCG) approach (Keedy, 1988, 1989), Site Team approach (Joyce, et al., 1989), or Curriculum Council (Grumet, 1989)?

Discussion

Keedy (1988) presents the concept of TCGs as a strategy to improve instruction and professionalize teaching. In these groups teachers provide support, encouragement, and critique to each other as they plan and test out instructional strategies related to self-improvement objectives. Teachers meet together monthly throughout the school year to devise "gameplans" and reflect upon the progress of these plans as they implement them in their classrooms. The focus of change is the individual teacher and the setting for change is the individual classroom. The role of the administrator in TCGs is primarily supportive and facilitative rather than participative (see Appendix J-12).

The SIGN approach to teacher empowerment/professionalization shares some of the characteristics of TCGs, especially the processes. Meetings are held throughout the school year on a monthly basis. Participants plan for improvements in schooling and provide critique, support, and encouragement to each other. As in TCGs, SIGN participants are viewed as the "experts," the "solution. . .not the problem" (Carnegie Report, 1986). However, several significant differences exist between TCGs and SIGN.

The most significant difference is in the role of the administrator. In SIGN, the administrator is an active participant in the group. Teachers and administrators, as much as possible, suspend traditional hierarchical roles and function as collaborators to plan and implement school improvements. The focus of change in SIGN is broader and more encompassing than in TCGs. While the individual classroom may be targeted based on decisions by the school team, most SIGN groups choose to focus on school-level improvement. In some cases, plans developed through SIGN have been implemented system-wide. Another important difference between SIGN and TCGs is in the networking among schools, with the central office, and with universities to identify problems and to provide creative problem solving strategies.

At the beginning of the SIGN study, the researcher identified several outcomes related to the empowerment of those within the schools. These outcomes included increased collaboration between teachers and administrators, increased shared decision making, and the development of strategies for instructional leadership by principals. Participants were asked to share their feelings on these issues throughout the two years of the study.

According to Grumet (1989), who writes eloquently of teacher empowerment, isolation and externally forced conformity are primary causes of teacher burnout:

> It (burnout) is less about being overworked than about feeling responsible for the experience of children and forbidden to shape that experience. It is the frustration of being harassed and hampered by the organization of space and time and material that are essential to your work without having any say about how these resources that shape schooling are distributed. (p. 21)

SIGN was implemented in an effort to increase collaboration at all levels and to increase teachers' input into planning and decision making. Grumet asks the question, "What would it take to move the energy, the confidence, and the fellowship from Abigail's

(restaurant) to the school cafeteria?" (p. 21). The implementation of SIGN was an attempt to establish that energy through meetings and processes planned according to theories of adult-learning (Knowles, 1980, 1984), effective inservice (Daresh, 1987; Daresh & LaPlant, 1984), and "synergogic" group processes (Mouton & Blake, 1984).

Results

Data related to the issue of teacher empowerment/professionalization were gathered from a variety of sources. Responses to Questionnaire 1 (Appendix B-1) provided the following results. In 1989-90, 95% of respondents agreed that SIGN had helped to reduce teacher isolation and increased collaboration to improve instruction. In 1990-91, 79% agreed unequivocally with this statement, while 21% questioned various aspects of the statement (the improvement of instruction, lax committees, the need for more collaboration, improvements more global than just instruction). Perhaps the willingness to question and critique this question is itself an indication of "empowered" teachers who feel free to speak out. One teacher described SIGN as "allowing a slow process of empowerment to take place." Participants' responses to changes that they would recommend in the SIGN process also provided insight into the empowerment issue. In both years of the study, participants strongly suggested that more teachers/schools become involved in SIGN. In year two, participants also suggested that teacher assistants and parents become involved. When asked to identify the most important result of SIGN, participants in 1989-90 listed empowerment 26% of the time and collegiality/collaboration 35% of the time. In 1990-91, empowerment and SDM were listed 51% of the time. These results indicate that participants viewed empowerment as the leading result of the SIGN process. When asked to respond to a hypothetical situation in which SIGN was discontinued, participants commented that the concept of SDM was firmly planted and would continue, even if SIGN were discontinued.

Some feared, however, that the CLDS would slip back to the old "administrative" style of leadership and that the SDM process might be shortchanged if SIGN were discontinued.

Responses to Questionnaire 3 (Appendix B-3) also provided insight into participants' views on empowerment through SIGN. (See Table 7, p. 93, for a summary of results of Questionnaire 3.) In 1989-90, participants listed the "bureaucracy," fear, and lack of SDM as some of the most important barriers to school improvement that they faced. In 1990-91, these three items dropped out of barriers that were listed as most important and only money and time were listed. In the same vein, participants in 1989-90 listed "not enough teacher involvement" as a barrier to SDM, but by the second year, 1990-91, they questioned the quality of SDM ("poor" or "pseudo") but not the quantity of SDM.

In 1989-90, administrators were listed by 47% and teachers by 35% of participants as being the sources of instructional decisions. In the second year, teachers were listed by 50% and administrators by 42% of participants. In addition, by the end of 1990-91, participants began to list sources of instructional decisions that indicate collaborative efforts (SIGN and students). In 1989-90, administrators were listed by 53% and teachers by 47% of participants as problem finders in the schools. In 1990-91, teachers were listed by 45% and administrators by 38% of participants as problem finders. SIGN or "All" staff were listed by 15% in 1990-91. Although these changes are not large, there is a clear indication that by the end of year two of SIGN, participants were beginning to think more in terms of teachers as decision makers and problem finders. More significantly, participants began to think of a decision-making body, such as SIGN, in which a wider variety of individuals (teachers, administrators, students, teacher assistants) had a voice. All of these findings seem to indicate a growing sense of empowerment during the first two years of SIGN on the part of SIGN participants.

Even with the indications of a growing sense of empowerment, some responses on Questionnaire 3 (Appendix B-3) suggest that participants continue to perceive teachers as less influential than administrators in school improvement. In 1989-90, 63% of participants listed administrators and 37% listed teachers as most influential in this area. By the next year, administrators were listed by 74% and teachers by 25% of participants, showing a loss of perceived influence for teachers. It is interesting to note that it was also in the second year of the study, 1990-91, that each school SIGN team was required to develop a five-year plan, thus removing at least part of the control of the planning process from the bases of the team. Also, while participants seemed satisfied with the amount of SDM opportunities available to them in year two, they did question the authenticity of these opportunities.

Further indications of participant views on the empowerment issue can be found in Questionnaire 2 (Appendix B-2). (See Table 6, p. 90, for a summary of results to Questionnaire 2.) Participants were asked to rate their agreement to the statements, "It is important for a principal to maintain positional authority," and "The principal at my school seldom exercises positional authority." In 1989-90, 77% felt that a principal should exercise positional authority, while 73% percent felt that their principal did this. In 1990-91, 73% of participants felt that a principal should exercise this authority, but only 55% felt that their principal did this. Apparently, participants in 1990-91 continued to believe that positional authority was appropriate but fewer felt that it was being used in year two than in year one.

In both years of the study, 100% of participants felt that teachers should plan school-wide improvement goals. However, in 1989-90, only 78% felt that teachers did this. In 1990-91, this figure had grown to 96%, a result that may indicate an increase in feelings of empowerment.

Two questions dealt with the roles of teachers and principals helping each other to share power. Eighty-four percent of participants in year one, 1989-90, felt that teachers should help principals learn instructional leadership strategies, but only 59% felt that teachers actually did this. In year two, 1990-91, 96% felt that teachers should help in this area and the percentage responding that they actually did this grew to 71%. On the question of principals helping teachers learn decision-making skills, 89% of participants in 1989-90 felt that this should occur but only 50% felt that it did occur. In 1990-91, 100% felt that principals should help teachers in this area and 75% felt that principals did, in fact, do this. The changes in the responses to both of these issues over the two years of the study are additional indications of a growing sense of empowerment through collaboration and SDM of the SIGN effort.

QUESTION #5. How does the SIGN approach to developing instructional leadership compare to ideas of instructional leadership suggested by ASCD (1984) and by Brubaker (1985)?

Discussion

The ASCD videotape, "The Principal as Instructional Leader" (1984), lists five categories of behavior patterns of effective principals leaders. These categories are vision, participative leadership, supportive leadership, monitoring, and resourceful leadership. Throughout the description of the effective principal leader is the assumption that the principal plays a key instructional role in schools. The principal is expected to set and articulate a vision for the school, empower teachers and others so that all in the school know they have a voice, set high expectations, establish structures to support those in the school, gather and use information about the status of each classroom, and secure resources necessary to support the school.

One outcome proposed at the outset of the SIGN process was the development of strategies for instructional leadership by principals. Participants were asked to provide feedback on this issue throughout the SIGN study.

Results

In response to Questionnaire 2 (Appendix B-2), 94% of SIGN participants in 1989-90 felt that the principal should be the instructional leader in the school, but only 56% felt that the principal in their school functioned in this capacity. By year two, 1990-91, 95% of SIGN participants felt that the principal should be the instructional leader while the percentage feeling that the principals in their school functioned this way grew to 86%. As reported above, the responses of participants in year two indicated that they had grown in their feelings that teachers should and did help principals learn strategies for instructional leadership (84% "should" and 52% "did" in 1989-90; 96% "should" and 71% "did" in 1990-91). (See Table 6, p. 90, for a summary of results to Questionnaire 2.)

When asked to respond to the statement, "The SIGN process that we have participated in this year has helped in the development of strategies for instructional leadership by principals in the group," 50% agreed with this in 1989-90 and 83% agreed in 1990-91 (Appendix B-1, Table 8). Twenty-seven percent of participants disagreed with this statement in 1989-90 and 17% disagreed in 1990-91. Some of those disagreeing with this statement felt that their principals were already functioning as instructional leaders and that this had not been developed through the SIGN process.

Table 8 about here

Table 8

Summary Assessment of SIGN Approach and SIGN as Inservice. (Questionnaire is in Appendix B.)

Please answer the following questions:

		89-90	90-91*
1. Do you work best alone or with a group?	BOTH	32%	47%
	ALONE	4%	8%
	GROUP	64%	44%
2. Compare and contrast the SIGN approach to inservice and professional development with traditional inservice approaches.			
Relevance; participation; collegiality; collaboration		42%	67%
Released time and other central office support		10%	9%
Away from school		20%	2%
On-going		10%	7%
Lacked focus of traditional inservice		- -	2%
Time-consuming planning process		- -	2%
Other (various responses)		18%	11%
3. Describe briefly the most effective inservice experience you have had as an educator.			
Not summarized. Responses cannot be used because of lack of information about most inservices mentioned.			
4a. Describe briefly your reactions to the following statements. Please include reasons for your reactions.			
The SIGN process that we have participated in this year has helped in the development of strategies for instructional leadership by principals (or assistant principals) in the group.			
AGREE		50%	83%
Comments: dialogue; helped focus; assistant principal only; foundation established through SIGN; "Allowed slow process of empowerment to take place"; principal sees value of cooperative brainstorming.			
DISAGREE		50%	17%
Comments: none this year; somewhat; principal was already an instructional leader.			

*Percentages were calculated by totaling number of responses, not by number of participants responding. Percents may not equal 100 due to rounding.

4b. The SIGN process that we have participated in this year has helped to reduce teacher isolation and to increase collaboration to improve instruction.		
AGREE Comments: In SIGN group only; gelled in December and became visionary; increased collaboration; improved instruction.	95%	79%
DISAGREE/UNSURE Comments: Not sure if instructional improvement was due to this. Perhaps a negative effect; some committees were lax; need more collaboration; more global than instruction.	0%	21%
NR	5%	
5. If you were to participate in this process next year, what would you want to see changed and why?		
1989-90: More group time; more time with other schools; more flexible schedule. 1990-91: More meeting format and schedule changes; group time; more time with other schools; cluster meetings by grades; more school level meetings; flexibility.	24%	52%
PARTICIPANT CHANGES 1989-90: More faculty, all schools, volunteers 1990-91: More faculty; TA's and parents.	37%	17%
PROCESS CHANGES 1989-90 Fewer forms and lectures; more information. 1990-91: Share via "paper" summaries; more action.	33%	15%
NO CHANGES	9%	17%
COMMENTS/QUESTIONS? Efficiency of day-long meetings; SBM has caused less need for SIGN.		
6. What do you see as the single most important result of the SIGN process?		
SBM, Empowerment leading to improvement	61%	51%
SBM	- -	15%
Plans for improvement/goal setting	29%	15%
Time/flexibility/reflection/away from site	3%	11%
Site changes/curriculum, discipline/schedules/moves		9%

7. Is SIGN is not continued next year, do you think there will be any lasting results from what we have done this year? If yes, what do you think these results will be?		
AGREE	95%	98%
DISAGREE	5%	2%

Comments 1989-90

Results of group projects will continue.
Openness, sharing will continue.
Teachers & administrators working together will continue.
Group process will continue.
Improved morale, trust will continue.
Larger view of schooling is established.

Comments 1990-91

Concepts of SBM, participation, instructional leadership, networking are now firmly planted.
We will continue.
Will become a model program.
If not continued, may slip back into old "administrative style" of leadership.
Needs to continue as communication toll will central office & each other.

Participants commented that they felt that the concept of instructional leadership had been one of the ideas firmly planted by the SIGN process. Some felt that the expectation for instructional leadership by principals would continue even if the SIGN process were discontinued.

Although administrators as a group lost a little ground in being viewed by SIGN participants as sources of instructional decisions (47% in 1989-90, 42% in 1990-91), the SIGN process which includes teachers and administrators was listed by 5% of participants as being viewed as a source of instructional leadership in year two. In both years of the study, curriculum was listed as an area in which principals should have "veto" power, indicating that participants placed a great deal of importance on the principal's input into curriculum matters.

QUESTION #6. How does the SIGN approach to the professional development of educators compare to theories of adult learning (Knowles, 1980, 1984; Mouton & Blake, 1984) and situated cognition and/or cognitive apprenticeship (Brown, et al., 1989; Perkins & Salomon, 1989)?

Discussion

Knowles (1980, 1984) suggested four basic assumptions about adult learning:

1. It is a normal aspect of the process of maturation for a person to move from dependency toward increasing self-directedness, but at different rates for different people and in different stages of life. Teachers have a responsibility to encourage and nurture this movement towards independence. Adults have a deep psychological need to be generally self-directing, although they may be dependent in particular temporary situations.

2. As people grow and develop, they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning -- for themselves and for others. Furthermore, people attach more meaning to learnings they gain from experience than to those they acquire passively. Accordingly, the primary techniques in education are experiential techniques -- laboratory experiments, discussion,

problem-solving cases, simulation exercises, field experience, and the like.

3. People become ready to learn something when they experience a need to learn it in order to cope more effectively with real-life tasks or problems. The educator has a responsibility to create conditions and provide tools and procedures for helping learners discover their "need to know." And learning programs should be organized around life-application categories and sequenced according to the learners' readiness to learn.

4. Learners see education as the process of developing increased competence to achieve their full potential in life. They want to be able to apply whatever knowledge and skill they gain today to living more effectively tomorrow. Accordingly, learning experiences should be organized around competency-development categories. People are performance-centered in their orientation to learning. (pp. 6-7)

Some established practices in adult learning have resulted from Knowles' assumptions. Among these are that attention should be given to planning of the learning environment; that the degree of self-direction needed by the learner should be diagnosed and learners should be involved in the planning of the instruction; the instructor should function as a facilitator; that the learner should be self-evaluating; that the background and experience of the learner should be used as a resource; that emphasis should be placed on practical application of the learning; and that learning should be sequenced around problem areas rather than subject areas.

In a discussion of situated cognition and the culture of learning, Brown et al. (1989) state, "A theory of situated cognition suggests that activity and perception are importantly and epistemologically prior -- at a nonconceptual level -- to conceptualization and that it is on them that more attention needs to be focused" (p. 41). Perkins and Salomon (1989) ask if cognitive skills are context-bound. They conclude that "the approach that now seems warranted calls for the intimate, intermingling of generality and context-specificity in instruction" (p. 24).

All of these approaches suggest that learning for adults is enhanced when it occurs in an "authentic" context, in group settings, and when theory and practice are intermingled throughout a sequence of "hands on" and "minds on" activities. These activities should be planned and evaluated by the learner and facilitated by the "teacher."

Results

SIGN was planned as an experiment in adult learning that was situated in the context and culture of the work environment. One of the original outcomes established for the SIGN study related to an "action-oriented, involvement approach" to professional development. The researcher and the university professors were to function as participants and facilitators rather than as instructors. Projects were to be developed by the teachers and principals who made up the SIGN teams. These projects were based upon "real" situations that existed in the schools and were identified by the school teams. In all these characteristics, SIGN was consistent with adult learning theory as well as theories of situated cognition and cognitive apprenticeship.

Responses from participants revealed that they recognized and appreciated the "unique" characteristics of the SIGN process that addressed their needs as adult learners. Perhaps the most telling result was that in both years of the study, participants listed "empowerment" and "SDM" as the most important result of SIGN (Table 8, p. 102, Appendix B-1). Participants spoke of the opportunity to be involved in a process that "made a difference" in the schools. When comparing SIGN to traditional inservice, the most frequently mentioned difference was that SIGN was "relevant" and allowed for "participation" (Table 8, p. 102).

Table 7 (p. 93, Appendix B-3) reveals that "relevance" and "teacher involvement" also lead the list of characteristics that participants believed were

necessary for effective inservice programs. "Site-based" appeared in that list in year two.

In both 1989-90 and 1990-91, 100% of participants felt that teachers should help in planning school-wide improvement goals. In 1989-90, 78% of the participants responded that teachers actually did plan improvement goals. By the end of year two, 96% of participants reported that teachers were involved in planning (Table 6, p. 90, Appendix B-4).

Results of the SIGN Progress Report revealed an overall positive response by participants to the structure and function of SIGN as an application of adult learning theory (see Table 5, p. 72, Appendix B-4). Participants responded favorably to the setting for the meetings (away from school, a two-day initial workshop in year one, pleasant surroundings, uninterrupted meetings). They also made positive comments about the opportunity to identify and accomplish goals, although some recognized the difficulty of implementing and achieving goals that the teams had developed. The process of planning for school improvement was recognized as an "evolving process." Situated in the real culture of the schools, learning by SIGN participants was not viewed as an end to be accomplished but as a process in which to be involved. Reflection, critique, and occasional planned activities that occurred at both the school-level and the system-level SIGN meetings allowed participants to be self-evaluating ("What's Your SIGN" activity; large and small group discussions; team reporting on projects). Formal evaluations were also carried out by each SIGN team (SIGN Progress Reports; SIGN Project Evaluations).

Conclusion

SIGN data indicate that substantial changes occurred in participatory SBM in the CLDS over the first two years of implementation of the SIGN project. Participants

reported increased feelings of involvement and empowerment. They recognized increased opportunities for collaboration and a sharing of perspectives as they "got to know" each other in a new, more collegial way. Collaborative SDM efforts were applied to governance issues as well as curriculum issues. Numerous site-based projects, some with systemwide affects, were implemented in both years of the study. In addition to talking about theories of school improvement, participants lived the reality of school improvement through a participatory, SBM process.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

"If there is one central message in all these current studies, it is that people want more of a sense of responsibility, more opportunity for fulfillment, more opportunities to participate in those decisions that affect their lives. (ASCD, 1984)

Summary

The purpose of this study was to describe the implementation in a school system of a collaborative, shared decision-making process, School Improvement Groups Network (SIGN). The study explored and described the "how" elements of implementing participatory site-based management (SBM) in one school system. A related purpose was to describe and define these processes and outcomes in a manner that will be helpful to others as they investigate and implement reform initiatives.

The study was guided by the overarching research questions, "How do individuals working in schools and school systems move from bureaucratic to participatory SBM?" Specific research questions that guided the study were addressed in Chapter 4. These questions were:

1. What is the SIGN approach to SBM and what are its major processes and outcomes as implemented in the Camp Lejeune Dependents' Schools (CLDS) in Camp Lejeune, North Carolina?
2. How does the SIGN approach to implementing participatory SBM in a school system compare to the communication/change model proposed by Achilles and Norman (1974) and Achilles (1986, 1988)?

3. How does the SIGN approach to inservice compare to the characteristics of effective inservice suggested by Daresh and LaPlant (1984) and Daresh (1987)?
4. How does the SIGN approach to teacher empowerment/professionalization compare to the Teacher Collegial Group (TCG) approach (Keedy, 1988, 1989), Site Team Approach (Joyce, et al., 1989), and the collaborative approach suggested by Grumet (1989)?
5. How does the SIGN approach to developing instructional leadership compare to ASCD's characteristics of the principal as instructional leader (1984) and Brubaker's conceptualization of instructional leadership (1985)?
6. How does the SIGN approach to the professional development of educators compare to theories of adult learning (Knowles, 1980, 1984; Mouton & Blake, 1984), situated cognition and/or cognitive apprenticeship (Brown, et al., 1989; Perkins and Salomon, 1989), and cognitive learning theory (Prestine & LeGrand, 1991)?

Responses to the research questions posed have been detailed in Chapter 4 and offer valuable insights and information for those schools and school systems seeking to implement restructuring based on a participatory SBM model.

Since this study was undertaken primarily to describe and explain a process (SIGN) rather than to seek a cause-effect relationship among variables, qualitative methodology was employed. Supportive quantitative data were generated or collected as appropriate. The methodological framework was based on the work of Glaser and Strauss (1967), Erickson (1986), and Merriam (1988) who describe naturalistic case study and comparative analysis approaches to research. The researcher was an active

participant/observer in the study and the choice of methodology was based upon her belief that a single view of reality is not sufficient to describe a complex, dynamic setting. This is consistent with Merriam (1988) who supports the use of case study as the most appropriate design for the close examination and understanding of real programs, processes, and problems encountered in the investigation of educational change or improvement.

Participants in the study were teachers and site-administrators who made up the SIGN teams supported by system-level administrators and university facilitators. In the first year of the study, four schools in one system participated in the study. In the second year of the study, all eight schools in the system participated. The participant selection process was determined by persons in each school in the study but the researcher stated a basis premise that participants who chose to be involved in school improvement will be more likely to make a meaningful commitment to the process. SIGN participants bore out this premise as they proved to be the "life" of the SIGN project and assumed ownership and responsibility for planning and implementing school improvement goals within the participating schools.

The literature review was undertaken in an effort to provide the reader with both the "big picture" of schooling in the United States and the specifics of current reform initiatives aimed at school restructuring through participatory site-based management, teacher empowerment/professionalization, and instructional leadership. In addition, literature about professional inservice, adult learning, situated cognition, and communication/change as they relate to school restructuring was examined.

Four specific outcomes were established at the initiation of the study. They were:

1. The development of strategies for instructional leadership by principals.
2. Observable change in schools.

3. Demonstration of an action-oriented, involvement approach to inservice (School Improvement Groups Network).
4. A reduction in teacher isolation and an increase in collaboration to improve instructions.

Findings

Project SIGN was created from a multi-faceted conceptual/theoretical base in an effort to place the best offerings of educational research into practice in a real school setting. Due to the complexity of schools as organizations and the mission of schools in our society, theories relating to organizations, instruction and learning, and communication and change were merged to deSIGN a process that would both fit into the unique, receptive setting offered by the CLDS and challenge that setting to reach further into the realm of participatory site-based management. In response to the overarching question posed by this researcher, "How do individuals working in schools and school systems move from bureaucratic to participatory SBM?", results indicate that the communication/change model (Achilles & Norman, 1974; Achilles, 1986) employed in the implementation of the SIGN project was effective in initiating and sustaining progress toward increasing participatory SBM during the period of the study (1998-91).

The outcomes established at the initiation of the study were used to structure the project and have been more than adequately met (Table 9). With respect to outcome one, the development of strategies for instructional leadership, participants' responses clearly indicated that the expectation for instructional leadership by principals is present in the CLDS. The percentage of respondents reporting that this expectation was being met grew over the two years of the study. Participants associated their growth in understanding of instructional leadership to their involvement in the SIGN process

(50% in 1989-90 and 83% in 1990-91). They reported that they felt that instructional leadership would continue to be an expectation of the teachers in the school system as well as an expectation of the central administration. In 1990-91, the collaborative school decision making (SDM) process (SIGN) began to appear in participants' responses and comments as a source of instructional leadership as opposed to earlier responses (1989-90) that maintained the dichotomy of "principal as instructional leader" or "teacher as instructional leader."

Table 9 about here

Outcomes two and three were clearly met and exceeded during the first two years of the study (Table 9). Changes in schools that participated in SIGN activities have been substantial. Each school has now established a school improvement committee and leadership team made up of the principal and teachers. In some schools, students, parents, staff members, and central office staff function as advisory members. In 1990-91, elections were held at the high school level for student SIGN representatives. School improvement plans included both curriculum and governance issues. Projects in the areas of wellness, school climate, "at-risk" programs, learner outcomes, parent participation, school-based governance processes, schedules, and curriculum, were examples of the many initiatives implemented in the schools.

Project SIGN was implemented (1989-90, 1990-91) and continued (1991-92) as one approach to inservice in the school system. Participants have been involved at a high level in systemwide SIGN meetings and in the schools where they have joined with the school principals to give leadership to school improvement efforts. In 1990-91, participants expressed a greater interest in inservice planned and implemented at

Outcomes	Findings	Conclusions
1. The development of strategies forinstructional leadership by principals.	1. A clearly established and growing expectation for instructional leadership in the CLDS. 2. Reports by participants that their understanding of instructional leadership grew due to SIGN invovlement. 3. SIGN participants understand that instructional leadership is expectation of central administration. 4. SIGN process began to be viewed as a source of instructional leadership.	1. SIGN process results in expectations for and understanding of instructional leadership. 2. Collaborative SIGN process facilitates growth in instructional leadership of many participants (not just the principal).
2. Observable change in schools.	1. Specific team identified goals resulted in observable change in year 1 (1989-90) 2. School improvement plans developed by each school resulted in some observable changes in year 2 (1990-91).	1. Observable change results from SIGN process as teams implement plans.
3. Demonstration of an action-oriented, involvement approach to inservice.	1. Increased interst in site-based inservice. 2. Valued time away from school site for planning. 3. Valued time at the site for planning and implementation. 4. SIGN participants provided feedback used to guide design of inservice.	1. The SIGN process provides the setting for a "hands on - minds on" approach to inservice that can be shaped by participants according to their needs and is valued for its relevance.
4. A reduction in teacher isolation and an increase in collaboration to improve instruction.	1. Reduced isolation. 2. Increased collaboration. 3. Increased feelings of empowerment. 4. Increased SDM. 5. Generalized impressions of improved instruction. 6. Increased willingness to question and critique.	1. The SIGN SDM process results in reduced teacher isolation and increased collaboration leading to increased feelings of empowerment and willingnes to critique and question (professional activities). 2. No clear or direct link established between SIGN process and improved instruction.

Table 9. Summary of SIGN findings and conclusions according to project outcomes.

the school site than in inservice planned and delivered at the central level. They continued to value uninterrupted time away from the site as essential to "getting the job done" but felt that they also need uninterrupted time at the school site. In both years of the study, participants reported favorable reactions to the relevance, participation, and collaboration afforded by SIGN as an approach to inservice as compared to traditional approaches. SIGN participants provided valuable feedback that was used to guide and revise implementation of the project throughout both years of the study.

By participant report, outcome four has been partially met (Table 9, p. 113). Participants agree that SIGN resulted in a reduction in teacher isolation and increased collaboration. In fact, empowerment and SDM through a collaborative process were reported as the most important outcomes of SIGN in both years of the study. The effect of the SIGN process on improved instruction is, however, less clear. Although this was certainly an intended result and participants feel that instruction has improved in holistic ways as a result of SIGN projects, they were more reluctant to speak of issues related to instruction and student performance, especially in year two of the study. They were aware that a discussion of instructional improvement often leads to an examination of student test scores and other outcomes, and these participants realized that, in the absence of substantial supportive data, these issues are too complex to relate simply to a reduction in teacher isolation and increased collaboration. It is reasonable to suggest that the interaction, collaboration, and reflection afforded by the SIGN were, at least partially, instrumental in assisting participants in examining more critically the issue of accountability and the relationship between improved instruction and student outcomes.

Appendix J provides a detailed comparison of the SIGN process to the theoretical/conceptual base from which it was created. The findings of this study affirm

this theoretical/conceptual base as effective for the planning and implementation of a participatory SBM process in a school system. The following discussion re-emphasizes and extends these findings (also see Table 10).

Table 10 about here

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1. Adult and Group Learning (Knowles, 1980, 1984; Mouton & Blake, 1984): Project SIGN as implemented was consistent with theories of adult learning that suggest that adult learners should enjoy autonomy and independence in the learning process. Project SIGN "instructors" (project director, site coordinator) functioned more as facilitators or guides and SIGN "learners" (teachers, administrators) directed their own learning and were involved in self-evaluation. Learning activities originated from "real" problems identified by learners and utilized the expertise of the learners. Teamwork and colleague affiliations provided motivation and gave meaning to the term "synergy" in which the learning gain of the team exceeds that of the individual working alone.

2. Change Process and Communication (Achilles & Norman, 1974; Achilles, 1986, 1988): The implementation of Project SIGN in the CLDS followed a communication/change model based on four stages of change and the communication elements associated with each stage. In the dissemination stage, SIGN participants were introduced to SIGN ideas primarily through one-way, large-group communication. At the demonstration stage, two-way communication, mostly in small groups, was the primary means of involving participants (site-teams, central office staff) in evaluating and testing the ideas about a new way of planning and making decisions in the CLDS. In the diffusion stage, the SIGN process became a part of the routine and communication was

Comparisons of Finding to Theories Supporting SIGN	Adult Learning			Communication/ Change		Inservice		Professionalization of Teaching				Situated Cognition				Instructional Leadership			Conclusions
	Knowles	Mouton/ Blake	SIGN	Achilles Achilles/ Norman	SIGN	Daresh/ LaPlant Daresh	SIGN	Grumet	Keedy	Joyce, et al.	SIGN	Brown	Perkins & Salomon	Prestine & LeGrand	SIGN	ASCD	Brubaker	SIGN	
Composition of SL 1. Principal as team member								Y			Y				Y		Y	Y	The principal should function as a team member
2. Teacher & others as curriculum leaders	Y		Y					Y	Y		Y	Y			Y	Y	Y	Y	Multiple sources of curriculum leadership
3. Principal & teacher as core of team		Y	Y					Y		Y	Y				Y		Y	Y	Core of team consists of teachers and principals
4. Support by university network		Y	Y	Y	Y	Y	Y	Y	Y		Y				Y	Y	Y	Y	University support allows merging of theory and practice
5. Support by other schools & central office		Y	Y			Y	Y	Y			Y				Y	Y	Y	Y	Network with other schools and central office staff is valued
6. Support by parents/students & community			Y	Y				Y			Y				Y				Teams should be supported by other stakeholders
Mechanics of SL 1. Time to meet during school day			Y			Y	Y	Y			Y				Y				Time to meet should be provided during school day
2. Meet away from site		Y		Y				Y	Y			Y				Y			Some meetings should be held away from site
3. Meet at the school site	Y		Y				Y	Y			Y				Y				Some meeting time should be provided at the site
4. Collaborative network		Y	Y	Y	Y	Y	Y	Y			Y	Y			Y	Y	Y	Y	Collaboration & networking are needed
5. Formal change/ communication process			Y	Y	Y						Y				Y				Implementation is facilitated by formal communication/ change process
Focus of SL 1. Site-based			Y			Y	Y	Y	Y		Y	Y	Y		Y				Focus should be on site level improvements
2. relevant/"real"	Y	Y	Y			Y	Y	Y	Y		Y	Y	Y	Y	Y		Y		Focus should be on "real" not contrived learning experiences
3. Problem-finding	Y		Y			Y	Y	Y	Y		Y	Y	Y	Y	Y				Problem finding is a crucial professional activity
4. Problem-solving	Y		Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Problem solving process is needed

SL = Shared Leadership Y = Yes, this is consistent with theory shown.

Table 10. Major findings and conclusions of the SIGN study relevant to the Shared Leadership Approach to SBM.

often two-way, one-to-one as SIGN participants involved others in their schools in the school improvement projects. The application/development stage occurred as SIGN was institutionalized and SIGN members assumed leadership roles in their respective schools and invited others in the school to attend SIGN meetings and participate in SIGN activities.

3. Inservice Programming (Daresh, 1987; Daresh & LaPlant, 1984): One focus of the project SIGN design was professional development through meaningful and effective inservice programming. As originally designed and implemented, Project SIGN met, or exceeded, all 12 criteria for effective inservice outlined by Daresh and LaPlant (1984) and Daresh (1987). The SIGN emphasis was on continuity, relevance, and involvement. Projects were site-based and learning was centered around the development and implementation of plans by participants rather than lectures and other "passive" instructional techniques. Participants repeatedly praised the SIGN process for relevance to their daily professional activities, the opportunity afforded for participation, and the sense of empowerment that resulted from their involvement.

4. Professionalization of Teaching (Grumet, 1989): The research borrowed heavily from the work of Grumet as she attempted to create a professional setting and an increased sense of professionalism among SIGN participants. The SIGN approach was an attempt to minimize teacher isolation and teacher/administrator divisiveness, both important aspects of Grumet's approach to the professionalization of teaching. The most important results of the SIGN project, as reported by participants, were an increased sense of empowerment and more opportunities to share in decisions important to them. The SIGN participants not only talked "across the curriculum," they also talked across schools, central offices and universities. The university facilitators and some consultants provided contact with the outside world in the SIGN process. In addition,

SIGN participants left the school setting for monthly meetings and for the two-day "kick-off" session at the beginning of year one (1989-90). Some school teams visited other school systems as they investigated plans for school development and improvement. In some schools, issues for shared decision making in the SIGN process included governance as well as curriculum matters, evidence that the distinction between shared decisioning in curriculum and bureaucratic decisioning in governance may be breaking down. As suggested by Grumet (1989), Joyce, et al. (1989), Keedy (1988, 1989), and Daresh (1987), SIGN participants were provided time to meet during the school day. In Grumet's approach, the superintendent met with the teachers at the first meeting. The CLDS superintendent was more visible and participative and provided substantial support in the form of released-time, teacher substitutes, materials and services, feedback and advice to the site coordinator, active participation in some SIGN sessions, and a demonstration of ownership and belief in the SIGN process. As suggested by Grumet of the faculty she worked with, faculties of schools participating in SIGN extended their use of a collective approach to education and developed a strong sense of ownership for the projects and processes. The experience of the researcher in the SIGN process leads her to agree with Grumet that teachers may not need extensive additional training to meet the challenges of teacher empowerment. They may need simply to be given the opportunity and time to become involved with school leaders in an environment that encourages risk-taking. They may need to be shown that journeys beyond the accepted education paradigms are valued and supported.

5. Teacher Collegial Group (Keedy, 1988, 1989), or Site Team (Joyce, et al., 1989): The SIGN project shared some of the characteristics of TCGs, especially the processes. The most significant difference was that SIGN provided for the inclusion of the site-level administrator as an active participant in the site-team. In addition,

because the SIGN process stressed the importance of networking among schools, the central office, and the university, conscious roles were established for central office staff and university personnel. University personnel assisted by conducting training, locating research and information for teams, facilitating group planning and evaluation, and providing a view of education from the "outside." Central office staff were "invited" and encouraged to attend meetings and to participate in presentations and team work. Their participation and facilitation yielded numerous results. For example, school teams had immediate access to administrators in central office and received prompt feedback and responses to questions. Central office staff offered support and guidance for ideas proposed by school teams. Legal and fiscal matters of concern to teams could be addressed by those most knowledgeable during the planning process. School team members "got to know" central office staff in a collegial and collaborative relationship. This change has the potential for helping central office personnel assume new roles as schools move to increased SBM.

6. Situated Cognition and/or Cognitive Apprenticeship (Brown, et al., 1989; Perkins & Salomon, 1989; Prestine & LeGrand, 1991): SIGN activities involved participants in learning about school improvement by creating a setting in which they identified problems, formulated "gameplans," and tested them in their schools. Plans were also critiqued, analyzed, and modified through group discussion and reflection. Formal project evaluations planned and completed by each school team provided additional opportunities for "real" learning during the SIGN process. SIGN participants responded favorably to the relevance and value of this process of situating learning in an authentic setting rather than in a lecture or contrived practice activity. Since SIGN projects arose from needs identified by the school teams, observable and meaningful changes in schools resulted as the projects were implemented.

7. Instructional Leadership (ASCD, 1984; Brubaker, 1985): A stated outcome was that principals learn strategies for instructional leadership by their involvement with teachers in the SIGN process. This outcome was based on Brubaker's conceptualization of instructional or curriculum leadership as "what students and adult educators experience as they cooperatively create learning settings" (p. 175). Since teachers interact with students on a daily basis, the open and intensive communication between teachers and administrators in the SIGN process should lead to increased/improved strategies for instructional leadership by principals. SIGN participants valued the opportunity to share learning in the new structure provided by the SIGN project and the majority stated that instructional leadership had been enhanced to varying degrees by the process. Instructional leadership must originate from a belief in and commitment to the concept. It cannot be dictated or "teased" from those without that commitment. On the other hand, instructional leadership cannot easily be suppressed in those who feel that commitment, and excellent instructional leadership comes not only from principals but also from teachers, assistant principals, central office staff, teacher assistants, etc. if they are provided with the "invitation" to participate in collaborative decision-making. This is consistent with Brubaker's view that "all are learners" in the school setting in that persons other than principals learned strategies for instructional leadership as they participated in SIGN. Principals will continue to be the primary source of instructional leadership in schools but as shared decisioning teams accept more responsibility for schooling, other members of the school community will share the curriculum leadership role. This may be especially true in schools where leadership and governance demands are too great to be addressed by one administrator (Johnson, 1991).

Conclusions

Conclusions here are built from a blending of findings (Chapter 4) and data derived from the literature (Chapter 2). Some conclusions from this study are the following.

1. The SIGN approach was effective for implementing SBM in the CLDS in that it increased the participation of administrators and faculty in making decisions about education in the CLDS. It seems that the SIGN approach can be used successfully to implement SBM in a school system with a history of and experience in cooperation through team structures.

The SIGN process expanded participation of teachers, principals, other staff members, parents, students, central office staff, and university professors into a problem finding/problem solving network. Findings of the SIGN study are consistent with the theory of situated cognition (Brown, et al., 1989) and suggest that this collaborative approach to problem finding/problem solving promotes learning through the social construction of knowledge. Thus, the collaborative networking approach of SIGN can be used successfully in implementing participatory SBM in schools.

Support of the central administration as evinced by commitment of resources (time, availability of staff, and active participation) to the project is important to project success.

SIGN processes were found to be consistent with major theories that guided the development and implementation of SIGN in the CLDS (Appendix J). This leads the researcher to conclude that these theories can be used to guide the development of successful practices in participatory SBM.

2. The communication/change model proposed by Achilles and Norman (1974) and Achilles (1986) was an effective means for initiating and sustaining SBM

in the CLDS. School systems wishing to implement SBM initiatives can successfully employ this or a similar communication/change model to structure and guide the change process. The SIGN implementation did not provide adequate emphasis on Stage 1 (Dissemination) of this process, leading to the conclusion that SIGN implementation could have been more successful if more information about SIGN had been made available to participants prior to and at the initiation of the SIGN project.

3. Like Daresh and LaPlant (1984), Daresh (1987), and Brown, et al. (1989), the SIGN researcher found that effective inservice is based on the needs of the faculty of the local school; actively involves participants in planning, implementing, and evaluating programs, (also Cranton, 1989); employs active learning processes; is an on-going process rather than short-term or "one-shot" event; enables participants to share ideas and assist one another (also Grumet, 1989; Joyce, et al., 1989; Keedy, 1988, 1989); and is provided during school time (also Grumet, 1989; Joyce, et al., 1989; Keedy, 1988, 1989). Following these guidelines resulted in observable change in schools, commitment of participants to projects, increased feelings of professionalism, and a recognition of relevance by participants: the effectiveness of inservice is increased when it is based upon continuity, relevance, and involvement.

4. Teacher professionalization through a team approach is enhanced when the principal or other site administrator functions as a member of the team (also Grumet, 1989; Joyce, et al, 1989) and not just as a "cheerleader" or facilitator (Keedy, 1988, 1989; Joyce, et al,. 1989). It is therefore concluded that shared leadership approaches to SBM in which the principal functions as an active member of the team enhances participant sense of professionalism.

Findings from the SIGN study that teacher participants involved in problem-finding/identification in year one (1989-90) reported a greater sense of influence in

school improvement than teachers in year two (1990-91) when the problem-finding/identification occurred at the central level leads the researcher to conclude that involvement in problem finding/identification (and not just problem solving) is crucial to the development of a sense of influence in school improvement (also Getzels, 1979; Prestine & LeGrand, 1991).

5. SIGN findings with regard to instructional leadership were that instructional leadership is more a function of activity (problem finding, planning, collaboration, etc.) than of position (principal, teacher superintendent, etc.). This is consistent with theories of instructional leadership suggested by Brubaker (1988) and ASCD (1984). Instructional leadership of all team members (not just principals) is enhanced through involvement in the SIGN process. Further, the team can be viewed collectively as a source of instructional leadership.

Despite expectations that participants would differentiate governance matters from curriculum/instruction matters in the SDM process, such is the reality of the school and the needs identified in the school that school teams identified concerns or problems that blurred this distinction. It is therefore concluded that the dichotomy of SDM for curriculum/instruction issues and bureaucratic decision making for governance issues is not maintained in the practice of shared leadership teams in schools.

6. Findings from the SIGN study are consistent with theories of adult learning (Knowles, 1980, 1984), situated cognition (Brown, et al., 1989; Perkins & Salomon, 1989), cognitive learning theory (Prestine & LeGrand, 1991), and synergogy (Mouton & Blake, 1984). Educators in the SIGN process did not learn how to share leadership through contrived scenarios in with they "practiced" SDM. Instead, they learned to share leadership as they participated in "real" school improvement projects.

Projects such as SIGN that combine "hands-on" and "minds-on" activities, that are situated in the real school setting, and that deal with real (not contrived) school problems and issues foster the professional development of participants.

Conclusions drawn from the SIGN study cluster into three major areas under a generalized concept of shared leadership which the researcher concludes is a more useful concept than that of shared decision making when discussing participatory SBM. Shared leadership more accurately suggests the reality and complexity of participatory site-based management than does the concept of shared decision making. The three areas of shared leadership about which conclusions are drawn are (1) the composition of shared leadership; (2) the process of shared leadership; (3) the focus of shared leadership. Table 10, p. 119, provides a summary of SIGN findings and conclusion organized according to these three areas of shared leadership.

Recommendation for Further Study

The SIGN study offers numerous possibilities for further studies. What strategies could be employed to build stronger relationships between school systems and university training programs as action research is implemented in schools? SIGN participants valued and benefited from the support of university facilitators but the connection was difficult to maintain. Participants in some schools were more successful than others in establishing direct links between university contacts and the individual school. Since school-university connections are clearly needed to inform both university preparation programs and schooling at the site, future researchers might investigate how these contacts could be built and maintained, and the possible inhibitors of such contacts.

Another question of immediate interest is how the central office staff in a school system could be involved more closely with the efforts of site-based teams. Individual

schools in systems moving to increased SBM run the risk of losing the input from experienced and knowledgeable curriculum specialists and coordinators who are accustomed to working in a traditional top-down, bureaucratic organization. These coordinators and supervisors may become a new breed of "unempowered" educators who need staff development in site-based strategies of service delivery.

Students in the CLDS high school became involved in shared governance precesses as a result of SIGN initiatives in their schools. By the end of SIGN's second year, educators in other participating schools were beginning to raise questions about student participation in school decisioning. Can students contribute meaningfully to school improvement team work? If so, can students in all grade levels be involved and in what capacity might they serve?

The role of parents on school improvement teams warrants investigation by future researchers. Parent participation is certainly needed in school improvement projects, but how do school improvement teams successfully engage parents with a wide range of experiences and values in successful planning and improvement efforts?

SIGN teams were made up of teachers and administrators and, since females outnumber males in the teaching profession, the majority of the participants were female. How will this affect schooling in systems that move to team decision making structures? Will school systems engaging in a participatory, site-based approach to school leadership take on a more feminine, cooperative way of schooling as opposed to a competitive, masculine approach (Glaser, 1991)?

One possible area for further research overshadows all others in the CLDS due to events that occurred in the system at the end of the second year of study. SIGN is a continuing process in the CLDS, but it is also one of a group of processes that have been affected by an unexpected decision of the CLDS faculty to become members of a bargaining

unit. The CLDS are located in North Carolina where, by law, school employees are not allowed to be members of bargaining units. The CLDS, however, are operated by the federal government and are not constrained by this North Carolina law. The faculty and administration of the CLDS must now learn to "do business" under the new arrangement mandated by the collective bargaining requirements. Six months into the new process the status of the previously-established participatory structures in the CLDS is unclear. One goal of SIGN was to bring teachers and administrators closer together in the operation of the schools, to break down the "We-They" mentality between teachers and administrators that is characteristic of many school systems (and bureaucracies in general). Project SIGN found a receptive setting in the CLDS where teamwork has long been a part of school operation. Curriculum councils, grade-level and special-area teams, teacher advisory groups (TAG), program budgeting originating with teachers, team leader positions, mentor positions, and department chairs are just a few structures and processes that already contributed to a sense of professionalism in the CLDS prior to the initiation of SIGN. Teachers in the CLDS routinely receive greater benefits and higher salaries than teachers in surrounding school systems. Ongoing professional development is encouraged and supported and a sabbatical program with paid leave allows CLDS faculty and administrative staff to pursue doctorates in education.

SIGN was conceptualized as the next step in steady process of professionalization already in motion in the CLDS. The beauty and promise of SIGN lay in the collegial/collaborative atmosphere that was beginning to develop between teachers and both site and central-level administrators. Introduction of the bargaining unit will surely influence the continued development of the collaborative atmosphere and process for managing schools. Collective bargaining relies on negotiations in which there are winners and losers. Collaborative problem solving is based upon the recognition that

most issues in today's schools must be viewed from many perspectives by SDM teams whose members have reached a common understanding about schools. Participants in Project SIGN attempted to initiate consensus decisioning about both curriculum and governance issues identified by site-based teams in the CLDS. It was an attempt to create a win/win environment through consensus decisioning and to assist in developing a shared understanding about creating learning settings where the needs of all in the setting are recognized. It was implemented in a system where the established bureaucracy embraced and supported it and had a history of involvement in and support for similar initiatives. It was beginning to show promising results after just two years of a change process that might reasonably take three to five years.

Successful change requires some shared understanding. This understanding can be facilitated in many ways. Projects like SIGN that encourage ongoing collaborative approaches to problem-finding/solving and planning (i.e., time to talk and get to know each other, time to see what others actually "do" as plans are implemented as opposed to what they "say," opportunities to make mistakes together and to fix those mistakes without "fixing blame") offer the setting for development of a shared understanding about schooling. It does not happen quickly, however. Observations by "experts" that true change takes from three to five years leads us to conclude that change has a beginning and an end. This belies experience that tells us that change is constant, ongoing. The best we can do is acknowledge and act on the fact that it does take time and effort to "get to know" each other and to develop a bond of trust. And trust is the key ingredient.

The CLDS leadership has set a standard for aggressively seeking and implementing progressive practices in education. However, some educators in the CLDS observe that they are overwhelmed by the constant "change" that they find themselves a

part of. Some comment that they are not sure where the innovation (the new program, practice, etc.) came from, that they are not sure if they agree with it, that they really don't have time to think about it, that they just have to do it (implement it). These are common comments wherever change is occurring and participants feel some sense of competition with others in the setting. These comments may indicate, however, feelings of "too much, too fast" on the part of those who must implement changes that have been planned by others. Usually this complaint is lodged by those at the lower rungs of the bureaucracy (teachers) against those at the higher levels (principals, superintendents, central office staff). Teachers may feel "unempowered" in that they feel that they are not trusted to make decisions, that they are trusted only in implementing the decisions of others. They comment that they are not privy to the inner workings of the central office and that background information about projects is often not shared with them prior to implementation. In fact, this was one observation of some SIGN participants even though SIGN was implemented, with full support of the CLDS central administration and most principals, in an effort to break down more of the barriers that hinder the development of trust among members of the school system. It is paradoxical that in choosing to unionize in June of 1991 some teachers in the CLDS chose to employ the strategies that they found troublesome in the CLDS administration. The topic was not a part of SIGN discourse. Why didn't this question come up in the open, collaborative SIGN setting? Paradoxically, some have chose to trust another bureaucratic structure (the union) to deal with the existing bureaucratic structure. Interestingly, many other teachers in the CLDS feel that the source of the "forced" change that they are now experiencing is not the CLDS administration, but the group of teachers who support the union effort. Unfortunately the collaborative process of SIGN did not have more time to develop to its maximum potential before this unexpected change occurred. Early "SIGNS" of developing

a shared understanding leading to trust among all CLDS educators were promising. Current "SIGNS" are problematic.

The position of the union leadership on the issues affecting the development of a shared understanding is now known. Future research might investigate if union leaders in the school system wish to continue in the development of a process in which they share decisions. If so, which issues will they agree are appropriate for SDM and which are not? More importantly, what is the position of teachers on these issues?

One part of Project SIGN was to promote a new kind of "conversation about schooling" (Timar, 1989). Future researchers may investigate the changes in the nature and circumstances of "the conversation about schooling" in the CLDS as a result of their introduction of the bargaining unit.

Finally, will it be possible to "negotiate" a three-way marriage among the CLDS administration that has elements of both bureaucratic and shared decisioning, the bargaining unit that operates through negotiations, and a consensus-based approach such as SIGN? These questions were not addressed by the current study but they provide fertile ground for future studies.

This researcher concludes this study with the observation that school folks already know <u>what</u> to do to improve education. They recognize the necessity of collective approaches to planning and decision making that will address the wide variety of needs presented by the "student of the 21st century." They know that they cannot do it alone because no one could. Results of the SIGN project add to the knowledge base about <u>how</u> to implement participatory decision making. It is a beginning and, like similar efforts, offers hope of the future of public education in the US. However, collective decision making teams must be built upon a base of trust and open communication among members. School folks and future researchers would provide a valuable service by

determining how that trust and open communication can be developed and maintained in the complex reality of today's school.

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APPENDIX A

SCHOOL IMPROVEMENT GROUPS NETWORK (SIGN) PROJECT

BIBLIOGRAPHY OF SIGN MATERIALS

School Improvement Groups Network (SIGN) Project

Bibliography of SIGN Materials

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APPENDIX B

INSTRUMENTATION

Instrumentation

Appendix B-1: Questionnaire 1

Date: _____

Social Security #: _____

Please answer the following questions (use the back of the page if necessary):

1. Do you work best alone or with a group?

2. Compare and contrast the SIGN approach to inservice and professional development with traditional inservice approaches.

3. Describe briefly the most effective inservice experience you have had as an educator.

4. Describe briefly your reactions to the following statements. Please include reasons for your reactions.

   a. The SIGN process that we have participated in this year has helped in the development of strategies for instructional leadership by principals (or assistant principals) in the group.

   b. The SIGN process that we have participated in this year has helped to reduce teacher isolation and to increase collaboration to improve instruction.

5. If you were to participate in this process next year, what would you want to see changed and why?

6. What do you see as the single most important result of the SIGN process?

7. If SIGN is not continued next year, do you think there will be any lasting results from what we have done this year? If yes, what do you think these results will be?

Appendix B-2: Questionnaire 2

Date: _____

Social Security #: _____

Please place an "X" on the line immediately after the response that indicates your reaction to the following statements.

1. Most decisions about school should be made at the school level (as opposed to the system, state, national level).

   ____ Strongly Agree
   ____ Agree
   ____ Neutral
   ____ Disagree
   ____ Strongly Disagree

2. It is important for a principal to maintain positional authority.

   ____ Strongly Agree
   ____ Agree
   ____ Neutral
   ____ Disagree
   ____ Strongly Disagree

3. Teachers and administrators collaborate frequently at my school.

   ____ Strongly Agree
   ____ Agree
   ____ Neutral
   ____ Disagree
   ____ Strongly Disagree

4. Collaboration among educators from different grade levels is <u>not</u> important.

   ____ Strongly Agree
   ____ Agree
   ____ Neutral
   ____ Disagree
   ____ Strongly Disagree

5. At my school, educators from different subject areas collaborate frequently.

   ____ Strongly Agree
   ____ Agree
   ____ Neutral
   ____ Disagree
   ____ Strongly Disagree

6. Instructional leadership is an essential role of the principal.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

7. At my school, most decisions are made by school personnel within the school.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

8. Teachers should not be involved in planning school-wide improvement goals.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

9. Collaboration among teachers and administrators is essential to quality education.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

10. At my school, teachers from different grade levels seldom collaborate.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

11. Collaboration among teachers from different subject areas is not important.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

12. Educators from my school frequently collaborate with educators from other schools.
    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

13. It is <u>not</u> important for school staff to collaborate with university personnel.

    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

14. At my school, teachers are involved in planning school-wide improvement goals.

    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

15. The principal at my school <u>seldom</u> exercises positional authority.

    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

16. Teachers can play an important role in helping principals learn strategies for instructional leadership.

    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

17. Educators at my school frequently collaborate with university personnel.

    ____ Strongly Agree
    ____ Agree
    ____ Neutral
    ____ Disagree
    ____ Strongly Disagree

18. Principals can not play an important role in helping teachers learn decision-making skills.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

19. It is important for educators from one school to collaborate with educators from other schools.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

20. The principal at my school plays an important role in helping teachers learn decision-making skills.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

21. Instructional leadership is a priority of the principal at my school.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

22. Teachers at my school do not play an important role in helping principals learn strategies for instructional leadership.

____ Strongly Agree
____ Agree
____ Neutral
____ Disagree
____ Strongly Disagree

COLLABORATION: TO WORK TOGETHER ON EDUCATIONAL GOALS.

Appendix B-3: Questionnaire 3

Date: _____

Social Security #: _____

Check one: _____ Teacher _____ Administrator

List the following in order of important, with #1 being the most important (you may list fewer than 5 items or more than 5 items):

1. Areas you would choose for school improvement.
   1.
   2.
   3.
   4.
   5.

2. Barriers you face as an educator in making school improvements.
   1.
   2.
   3.
   4.
   5.

3. Staff members (by position) in your system that you believe to be the most influential in improving your school.
   1.
   2.
   3.
   4.
   5.

4. Characteristics you believe are necessary for effective inservice programs for school staff.
   1.
   2.
   3.
   4.
   5.

5. Barriers to shared decision making faced by educators.
   1.
   2.
   3.
   4.
   5.

6. Areas where shared decision making is appropriate in your school (i.e., curriculum, discipline, scheduling, etc.).
   1.
   2.
   3.
   4.
   5.

7. Areas where shared decision making is not appropriate in your school.
   1.
   2.
   3.
   4.
   5.

8. Sources of decisions about instruction in your school.
   1.
   2.
   3.
   4.
   5.

9. The problem finders in your school (the people who identify critical areas to target for goals).
   1.
   2.
   3.
   4.
   5.

10. Issues on which principals should have "veto" power.
    1.
    2.
    3.
    4.
    5.

Appendix B-4: SIGN Progress Report

DATE: _____

One of the goals of the SIGN Project is to develop a model for the structure and function of a group made up of school teams (administrators and teachers) and university personnel that work collaboratively to address school issues. The group has essentially two functions: (1) to identify and implement goals in individual schools, and (2) to provide feedback and support for teams from other schools. **Please list below your suggestions and observations on the following topics.**

1. The structure of the school teams. (They were structured differently in each school. Please comment on your team or any of the others.)

2. The structure of the large group (school teams consisting of teachers and administrators and university personnel).

3. The format of the meetings (a two-day workshop followed by whole day meetings, away from the work site, more group discussion rather than presentations, interaction with university personnel, etc.).

4. The function of your school team (identifying and implementing school goals).

5. The function of the large group (feedback, support, critique).

Appendix B-5: SIGN Individual Project Evaluations
(use additional sheets if necessary)

DATE: _____

SCHOOL: _____

1. The goal of our school's SIGN project is:

2. The results and evidences (outcomes, products, processes, or events) that we intended by setting this goal were:

   RESULTS EVIDENCES

3. The results (with evidences) that we obtained by working towards this goal were:

   RESULTS EVIDENCES

4. Who benefited and how did they benefit from work done towards this goal (the school system, the school, teachers, administrators, students, parents, etc.)?

5. Was the goal completely or partially met?

   a. If partially met, to what degree was it met?

   b. If partially met, what remains to be done?

6. What, if anything, about the project would your group change?

7. What components of the project are essential and should not be changed?

8. What are the most significant unexpected things your SIGN team learned from working on this goal? OR What were the most significant unexpected outcomes of your project?

APPENDIX C

SAMPLE OF SIGN FIELD NOTES, AGENDA, AND MEMORANDUMS

Appendix C-1: Sample of Field Notes

FIELD NOTES: February SIGN Meeting 1990

This meeting began with a critique of an article, "The Politics of School Restructuring," led by the LHS group. Mary Rotchford first talked about committee structure, stating that committees need to involve the different stakeholders of the school. Shari McPeak spoke about committee structure for their proposed committee (who, how many); getting feedback from the other teachers by using a survey; and staggered terms. Mary then expanded on the article by asking the question, "What does restructuring mean?" This is not just adding new programs but changing the way schools do business and involves decentralization. It follows the Eastern European model that has been so successful. She mentioned John Goodlad from Florida and the Coalition for Essential Schools led by Ted Sizer from Brown (Horace's Compromise). She brought up the problems of ungraded schools where no grades are given. A question was asked about how students could get into college and she answered that Goodlad was working on this. Melba Davis' question was how do you address parents about a radical change such as this. Mary responded that this is usually done in systems that are failing so they are ready for a change. Bev Hughes asked if results were available to judge how these changes are working. Mary said that these were in progress, not ready yet. Mike Parker asked about special education considerations and Mary said that some schools have asked for exemptions not to teach special ed and ESL. She continued that the idea is to do away with the shopping mall idea and to have four basic courses. They are also trying to address social expectations for schools while realizing that schools can't do everything. I passed out a handout (attached) of school reforms from eleven school districts to show that many of the issues we are discussing have been the focus of reform in other areas. Dr. Achilles compared changes expected with the South African change model -- that in five months they have seen more change than most have in a life time. He mentioned South Carolina and Ben Bloom; Bill Spady who left the NIE and went to the Coalition of Outcome Based Schools (ask about these references). He asked if we want to measure what is learned or the time factor involved in learning (reading comprehension vs. reading speed), making the point that some children can learn same material but it takes them longer. The Gov. of Colorado said he would take away all limitations and school people can do what they want but the response was silence. S.C. wiped out all restrictions in ten school systems and the systems did not know what to do. The point is

that school people have been trained to follow mandates, to jump through hoops. Lea Efird related this to her student teacher who at the High School was told to teach archery, etc. but to whom Lea at TTI said, "What do you want to teach?" The teacher did not know and tried to teach ball skills with a disastrous result. She then consulted Lea and books and came up with a workable plan. Dr. Achilles asked how we develop a "vision" of what schools should be, what is pushing school reform? To the last, he responded that it is the economy. When we had agrarian economy, schools looked like barns and a farm calendar was followed. During industrialization, schools were thought of as factories with a factory schedule (55 minute periods with a five minute break). There have been several tries at year-long schools and we are now going back to a cottage industry society where workers may stay at home and work on computers (AT&T) and "small" is considered "better." He feels that the workplace will be an analog of schools of the future. The unit of control will be smaller, there will be less bureaucratic control of workers, and students will be trained to be independent workers. He then envisioned an educational system as follows: At 6-8 months. of age, youngsters will have an educational nanny (neighborhood retirees, perhaps retired teachers). At a certain level of readiness, perhaps around 4-6 yrs., children will attend a neighborhood schooling center. In groups of 10-12, students will be given an "empty" computer and be told to "teach" the computer. Two days a week, students will go to school for socialization (drama, art, science, etc.). In the neighborhoods, there will be neighborhood mentors (citizens) to teach specialty areas (guitar, cooking). Perhaps a badge system, as in boy scouts, will be used. Students will not live with others but will stay in their own homes. With the setting of this "vision," a break was called.

After break, teams worked in small groups until lunch time.

After lunch, Dr. Achilles presented his paper on class size (attached) rather than speaking on communication and change. This paper won the award from AASA and "yields an unambiguous answer to the question of the existence of a class size effect." Reduced class size (1:15) does make a difference, especially in early primary grades and for at-risk students. Other findings were that teacher aides do not make a significant difference in student achievement but that random assignment does.

Small group work continued. I gave each small group a list of ideas (attached) to use if they wished when planning their presentations to the CLDS Administrators Meeting on 26 February 1990.

We then did a quick group activity, "What's Your Sign?" (attached) in order to stimulate interaction among groups. One half of the participants interviewed the other half about their SIGN projects.

After break, each school gave progress reports and game plans as follows:

TT1: Their hope to remain a K-2 school was "shot down" and they will become a K-4 school 1990-91. Today SIGN teachers are working on room assignments (the principal is not present). The principal requested that they work on a survey for teachers concerning reassignments (schools, grades, team leaders, mentors). For Berkeley Manor they gave this feedback about their plan for enrichment using special area teachers. The teachers liked this but do not see a need for explorations in order to do this. The principal said to explore the pros and cons.

Gameplan: They will visit the Duke Developmental School, do the survey and work on their 5-year plan in depth.

LHS: They presented their SIGN project to the LHS faculty meeting and are now compiling the results of a survey.

Gameplan: They will be going to each team to let them know progress and to discuss the project. Elizabeth Thomas said that ETT Training teachers mentioned the project and said it was good.

BERKELEY MANOR: Every grade level has done the on-the-wall curriculum, due to the wonderful job by the special teachers with the exploration, Supermarket Science. Today they are working their proposal for early dismissal. Mike Parker elaborated on the special area teachers coming up with a plan in response to the SIGN teams first plan. They are trying to make the early dismissal plan one that Dr. Sloan will not say "no" to. They are happy that the whole school system is working on the on-the-wall curriculum idea.

Gameplan: They will continue to work on early dismissal plan. Sharn Haley (guest - Reading, L.A. Coordinator) asked them to explain their early dismissal idea and Bev Hughes explained it to her.

TT2: Today they are working on a focus for the survey of the housing areas for their at-risk plan. They have compiled info from the parent forum and want to work on more info about the parent meeting.

Gameplan: They will continue to locate and order items for their professional library on at-risk. By the next meeting they should have had another parent conference.

NOTES: Prior to today's meeting, Elizabeth Thomas, principal of TT1 school, had been notified that TT1 had not been selected to continue participation in School of Excellence Competition. She had sent a letter to appropriate people (copy attached). This is an unfortunate even because a great deal of work had gone into the application process and TT1 (a school within the Jr. Enlisted Personnel Housing area) has certainly provided exceptional educational opportunities for the K-2 students who attend.

Today's meeting had slightly less participation by principals due to a meeting that required the presence of all assistant principals, making it more difficult for principals to attend. Mr. James and Dr. Hager could not attend. Elizabeth Thomas and Mike Parker attended for some, but not all, of the meeting. Generally, much was accomplished, especially more large group work. Perhaps a little too much of this, not leaving school teams enough time.

Appendix C-2: Sample SIGN Agenda

SCHOOL IMPROVEMENT GROUPS NETWORK (SIGN)
AGENDA
DECEMBER 6, 1989

MEETING TIME: 9:00 a.m. - 3:30 p.m.

MEETING PLACE: Regimental Room - Officers' Club

ORDER OF EVENTS

CRITIQUE: "Professional Knowledge and Reflective Practice" by Donald A. Schon. This article is in the material that you have already received. Thank you to the Berkeley Manor group for agreeing to lead this discussion.

GROUP REPORTS

GROUP DISCUSSION OF PROJECT EVALUATIONS

BREAK - COFFEE AND DANISH

SMALL GROUP WORK

LUNCH: We will eat at the Club and we all need to go through the line at the same time so the cashier can run a tab for billing purposes.

SMALL GROUP WORK

GAMEPLANS: Planning the next steps.

BUSINESS ITEMS AND CLOSURE

NOTES:

1. Be thinking of ways to spend your $500.00 per group.
2. Please return questionnaires if you haven't already.
3. Principals, please bring the choices of dates for the rest of our meetings. We need to establish our timetable now.

Appendix C-3: Sample SIGN Memorandum and Agenda

CAMP LEJEUNE DEPENDENTS' SCHOOLS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5005

SCOL
19 September 1990

From: Site Coordinator, School Improvement Groups Network (SIGN)

To: School Improvement Groups Network Participants

Subj: SIGN MEETING; 28 SEPTEMBER 1990

1. Attached is the agenda for our first SIGN meeting of 1990-91. Please distribute copies to members of your team.

2. The first meeting will be held at the Officer's Club at Marine Corps Air Station, New River 28 September 1990 from 0800-1530. Dr. Dale Brubaker and Dr. Chuck Achilles from UNCG will meet with us that day. This first meeting will provide background information for new participants as well as new ideas for this year's planning. You will have uninterrupted work time in your school groups, especially in the afternoon.

3. As you can see from the agenda, I would like a member of each school team to talk for 5-10 minutes about their 1989-90 school improvement efforts. Since there have been so many moves since last year, please call me if this presents any problems.

4. I look forward to seeing you all on the 28th. Please call if you have questions, suggestions, or comments.

PAT GAINES

SCHOOL IMPROVEMENT GROUPS NETWORK (SIGN)
AGENDA
September 28, 1990
8:00 a.m. - 3:30 p.m.

I. WELCOME AND INTRODUCTIONS: Dr. Brooks & Pat Gaines

II. CLIMATE SET: Dr. Achilles & Pat Gaines - Background of SIGN; vision statement; goals; national perspective on school improvement.

III. CLDS SCHOOL IMPROVEMENT INITIATIVES - 1989-90: Pat and a representative from each school.

IV. STEP INTO THE FUTURE WITH SIGN: A Map for Your School. Dr. Brubaker and Pat Gaines

A. Step One: Team Selection - Who are the team members?

B. Step Two: Goal Selection - What is worth doing in our school?

C. Step Three: Stating Objectives - What specifically do we need to do?

D. Step Four: Devising Strategies - How will we accomplish our goals?

E. Step Five: Planning Evaluations - How will we know if we are achieving what we set out to do?

V. SCHOOL ASSESSMENT QUESTIONS: Dr. Brubaker

VI. SMALL GROUP WORK TIME

VII. BUSINESS ITEMS AND CLOSURE

Appendix C-4: Sample SIGN Memorandum

CAMP LEJEUNE DEPENDENTS' SCHOOLS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5005

1755
SCOL
23 August 1990

From: SIGN Site Coordinator

To: CLDS Principals

Subj: Selection of School Improvement Teams

1. During the 1990-91 school year, all CLDS schools will establish and implement site-based school improvement teams. Dr. Sloan has sent you a copy of One School at a Time by Carl L. Marburger to assist you in this process.

2. Team selection is an important issue and will benefit from your careful consideration. Please note that Marburger recommends self-selection or election by the faculty as being the most representative methods and the methods that will result in members who are willing to commit themselves to the process of school improvement. You may find that a combination of these approaches will suit the particular needs of your school.

3. The school improvement teams this year will work as members of the School Improvement Groups Network (SIGN). The first meeting is September 28 (location and times to be announced later). You will want to have the teacher members of your teams in place before that date but may want to delay selection of other possible members (parents, students, paraprofessionals, etc.) until after the meeting on the 28th.

4. Selection of improvement goals will be one of the first items on your agenda after selection of the team members. Some of you may already have goals identified based on your plans from last year. In these cases, you may simply revise or update these plans. Some reminders about goal selection are: (1) Improvement plans are enhanced when goals are identified collaboratively by those who will be implementing the plans (teachers and principals with input from parents and students). (2) It is important to relate school goals to system-wide goals (copy attached). However, our school system and community have undergone significant changes since those goals were established so you may also want to include goals that represent newly identified needs. (3) Goals need not relate only to identified deficiencies but may also be extensions or enhancements of existing strengths or entirely new directions.

5. You will determine the composition and size of your teams. Some things to think about:

   a. Composition: The principal, a group of teachers, and parent representative(s) will comprise your basic school improvement team. Parent participation can occur through separate parent advisory groups that will, at times, meet with the school improvement teams at the school site. You may also include student representatives and paraprofessionals. It is not necessary to have a teacher representative from each grade level or subject area. In fact, some of last year's members pointed out that, as professionals, our representatives are able to be spokespeople for any group in the school. Only **principals and teachers** will attend system-wide SIGN meetings.
   b. Size: The number of teacher members will depend on your school's needs but four to eight members work well for CLDS schools. No matter how many teacher members you have on your team, **each school will be able to send only a total of five team members to each system-wide SIGN meeting.** This is necessary due to the difficulty and expense of covering classes.

6. The focus of the SIGN process is participatory site-based management and school improvement. Teachers, supported by principals who are strong instructional leaders, are the keys to identification and implementation of goals. A high level of commitment and professionalism is required from all members. University facilitators assist the teams in this process but we rely heavily on "in-house experts," our own teachers, principals and other administrators, to share their knowledge and skills. **SIGN is the vehicle for systemwide coordination of our participatory school improvement process.** SIGN allows uninterrupted time for collaboration, sharing, and work on school projects. SIGN will be shared by your needs and goals. Please let me know what they are so we can make the most of this special opportunity.

7. Please call me at 2463 if you have questions or concerns.

PAT GAINES

Appendix C-5: Sample SIGN Memorandum

CAMP LEJEUNE DEPENDENTS' SCHOOLS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5005

4 February 1991

From: Pat Gaines, SIGN Site Coordinator

To: SIGN Participants

SUBJ: SIGN Meeting, 15 February 1991

1. Our next SIGN meeting will be held from 8:00-3:30 on Friday 15 February 1991 at the Marine Corps Air Station Officers' Club. Please note that this is a change of location from the Paradise Point Officers' Club.

2. Each school team is being asked to read a small section of John Goodlad's book, A PLACE CALLED SCHOOL and to share a brief and informal summary (2-4 minutes) of the major points of the reading at the meeting. Pleas share the reading with your team members so that each person only has a few pages to read. (This is a good cooperative activity. We get the essence of the book and only have a few pages of individual reading.) The book has been divided as follows:

Chapter 1:	TT1
Chapter 2:	TT2
Chapter 3:	Delalio
Chapter 4:	Russell
Chapter 5:	Superintendents' Office
Chapter 6:	Berkeley Manor
Chapter 7:	Stone Street
Chapter 8:	Brewster Middle School
Chapters 9 & 10:	Lejeune High School

3. Dr. Achilles from UNCG will be with us on the 15th. Attached is a tentative agenda for the day. Please call me if there are any questions SEE YOU ON FEBRUARY 15th.

PAT GAINES

CAMP LEJEUNE DEPENDENTS' SCHOOLS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5005

SIGN AGENDA

15 February 1991, 8:00 a.m.-3:30 p.m.
MCAS Officers' Club

SCHOOLS VS. SCHOOLING

8:00-8:30	Coffee (please contribute to cash box) Introduction: Dr. Charles Achilles
8:30-9:15	Discussion (large group) of A PLACE CALLED SCHOOL
9:15-10:00	SACS Information/Discussion (large group)
10:00	Break
10:15-12:00	School Teams Work Time
12:00-1:00	Lunch, R&R
1:00-3:00	School Teams Work Time
3:00-3:30	Closure

Please remember to limit SIGN groups to approximately 5 members at each day-long meeting in order to be sure that classes are adequately covered in our schools.

Appendix C-6: Sample SIGN Memorandum

CAMP LEJEUNE DEPENDENTS' SCHOOLS
Marine Corps Base
Camp Lejeune, North Carolina 28542-5005

29 May 1991

MEMO

From: Pat Gaines, SITE Coordinator

To: SIGN Participants

Subj: 6 JUNE 1991 SIGN MEETING

1. Our next SIGN meeting will be held on 6 June 1991 at the Marine Corps Air Station Officers' Club from 0800 until 1530. This will be our last system-wide SIGN meeting this school year.

2. An important part of this meeting will be the opportunity for each school's SIGN Team to share with the large group the highlights of progress on their school improvement goals. It will be necessary to limit your comments and time for questions/reactions from the group to a total of 15 minutes per school. Let's keep this sharing time more in the form of dialogue and discussion rather than a formal presentation.

3. A second goal of the final meeting will be for each school team to complete a brief written review of progress this year on your school improvement plan. I will provide a format at the meeting, but feel free to bring your own if you have already developed one.

4. Please be sure to complete and bring with you to the meeting the questionnaires that I sent to you last week if you have not already returned them to me. I appreciate your taking the time to provide feedback that will guide the SIGN process in the future.

5. A tentative agenda for the 6 June meeting is attached. I look forward to seeing you and hearing about your school improvement accomplishment this year.

PAT GAINES

SCHOOL IMPROVEMENT GROUPS NETWORK (SIGN)
AGENDA
6 JUNE 1991

MARINE CORPS AIR STATION OFFICERS' CLUB
0800-1530

0800	COFFEE
0830:1030	SCHOOL TEAMS SHARE SCHOOL IMPROVEMENT HIGHLIGHTS
1030	BREAK
1045:1200	SCHOOL TEAMS COMPLETE WRITTEN PROGRESS REVIEWS
12:00:1300	LUNCH
1300:1500	SCHOOL TEAMS' WORK TIME
1500:1530	SIGN OVERVIEW 1990-91 AND ADJOURNMENT

APPENDIX D

OPTIMAL BINARY ASSIGNMENT OF PARENTS AND STAFF TO ACCREDITATION TEAMS

PLEASE NOTE

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APPENDIX E

SIGN PARTICIPANT LISTS: 1989-90 AND 1990-91

Appendix E-1: SIGN Participant List, 1989-90

CAMP LEJEUNE DEPENDENTS' SCHOOLS

Pat Gaines, Site Director
E. Conrad Sloan, Superintendent
Mary Beth Poole, Testing Coordinator
Tam Hager, Principal
Larry McRacken, Counselor
Brenda Johnson, Assistant Principal
Mary Rotchford, Teacher
Jim Sutton, Teacher
Shari McPeak, Teacher
May Langston, Teacher
Pearlie James, Principal
Linda Tom, Teacher
Karlyn Henry, Teacher
Sally Delaney, Teacher
Geraldine Hall, Teacher
Cecilia Mencer, Teacher
Elizabeth Thomas, Principal
Carolyn Davis, Teacher
Dreama Pressley, Teacher
Rose Guthrie, Teacher
Melba Davis, Teacher
Sue Rice, Teacher
Lea Efird, Teacher
Mike Parker, Principal
Ellen Abel, Teacher
Beverly Hughes, Teacher
Belinda Conway, Teacher
Mary Gail Howland, Media Specialist

UNIVERSITY MEMBERS

Charles Achilles, UNCG
Dale Brubaker, UNCG
Ed Bell, ECU
John Keedy, West Georgia College

PARTICIPATING VISITORS FROM CLDS

Central Office Coordinators
Assistant Superintendent for Instruction
Non-member teachers

Appendix E-2: SIGN Participant List, 1990-91

BERKELEY MANOR

Dr. Poole - Principal
Grace Harrington - Teacher
Mary Gail Howland - Teacher
Michele Flower - Teacher
Mary Hetter - Teacher
Gail Van Fleet - Teacher
Gail Ross - Teacher

RUSSELL

Dr. Scroggs
Donna Myslinski
Leigh Ann Higgins
Geraldine Hall
Karen Darrow
Patsy Canady
Pat Montana

LHS

Tom Hager
Brenda Johnson
Larry McRacken
Norm Allen
May Langston
Eric Steimel
Jill Boone
Sherri McPeak
Catriona Redding

TT1

Linda Hawes - Principal
Sylvia Fulp - Teacher
Mary Lou Davidson - Teacher
Lea Efird - Teacher
Dreama Pressly - Teacher
Rose Guthrie - Teacher
Sue Rice - Teacher
Carolyn Davis - Teacher
Frances Gladson - Teacher

TT2

Mr. James - Principal
Norma Charles - Teacher
Marie Lowery - Teacher
Lix Lauzon - Teacher
Christy Spade - Teacher
Ruth McDowell - Teacher
Carol Nelson - Teacher

DELALIO

Barbara Simmons - Principal
Sheila Mortenson - Teacher
Anne Beacham - Teacher
Bonnie Platt - Teacher
Regina Harper - Assistant
Donna Aaron - Teacher

BREWSTER MIDDLE SCHOOL

Elizabeth Thomas - Principal
Tom King - Assistant Principal
Hugh Miller - Teacher
Carole Hill - Teacher
Jackie Wagner - Teacher
Ginnie Pierce - Teacher
Kathy McCorkle - Teacher

STONE STREET

Susan Rumbley - Principal
Lee Branche - Assistant Principal
Anne Marie Conley - Teacher
Carla Johnson - Teacher
Carolyn Kidd - Teacher
Mary Anne Linker - Teacher
Fran Cress - Teacher
Anne Reilly - Teacher
Ann Peterson
Debbie Miller - Parent
Lorraine Dunphy, Parent

APPENDIX F

SUMMARY OF PREVIOUS DISSERTATIONS ON ORGANIZATIONAL STRUCTURE, DECISION-MAKING AND CHANGE IN THE CAMP LEJEUNE DEPENDENTS' SCHOOLS

Summary of Previous Dissertations on Organizational Structure, Decision-Making and Change in the Camp Lejeune Dependents' Schools

Howard, James Marvin, Jr. A Study of the Relative Significance of Positional Authority and Expertise in an Experimental School. (1973)

The researcher in this study argued that the bureaucratic organizational model is appropriate for school governance while a professional model is best suited for curriculum and instruction. Through an exploratory case study of an elementary school that was organized bureaucratically for governance functions and professionally for curriculum and instruction, the researcher studied and described the relationship between position power and expert power.

Sloan, Molly James. A Study of the Implementation of a Bureaucratic-Professional Model of Decision-Making at an Elementary School. (1975)

Through a comparative case study the researcher investigated and described socio-political aspects of an elementary school during three time periods: prior to initiating a bureaucratic/professional model of decision-making; during the planning phase for implementing the model; and during the implementation of the model. The experimental decision-making model was based on the belief that the bureaucratic organization model of decision-making is appropriate for governance matters and that the professional model of decision-making is appropriate for curriculum and instruction.

Sloan, E. Conrad. A Case Study of Decision-Making in a School Established to Increase Decision-Making by Teachers in Areas of Curriculum and Instruction by Suspending Bureaucratic Constraints. (1975)

The researcher in this study sought to determine the effects on teachers' patterns of decision making when a professional model for decision-making in the areas of curriculum and instruction was initiated in the school. The study was based on the

assumption that teachers should make most of the instructional decisions in schools because they interact most often and closely with students. The results of the study suggested that teachers' concern about their decision-making role increased during the experimental program.

Haworth, Shirley Lambert. A Sociocultural Framework for Analyzing Change in Organizations and Application of the Framework to an Educational Setting. (1978)

The researcher examined patterns of interaction in an elementary school as they were affected by administrative succession and the initiation of a new decision-making model based on teacher involvement in instructional decisions. Specifically, the researcher analyzed factors involved in initiating the change, stress during the change, factors related to time required to internalize the change, and the effect of status-role changes on evaluation.

Scroggs, Richard Wilcher. Shared Decision-Making Equals Empowerment: Portraits of Teacher-Leaders in a High School Setting. (1989)

Through portraiture, the researcher sought to reveal a collective "consciousness of empowerment" of three teacher-leaders in a high school. The study was based on the assumption that teacher ownership and loyalty is enhanced by teacher participation in decision-making. The three teacher-leaders portrayed had been selected as teachers of excellence and had participated in both bureaucratic and professional decisions through their positions as team leaders, department chairpersons, and members of the curriculum council of the school.

Johnson, Brenda S. Self-Portrait of a High School Assistant Principal as a Curriculum Leader. (1991)

This autobiographical self-study describes the creation of a curriculum leadership role in a high school. The researcher identifies skills and qualities that are crucial to successful curriculum leadership. She suggests that a successful teaching career most often precedes a curriculum leadership role and notes that women have the most experience in teaching in America's high schools. She argues that diverse administrative teams with curriculum leaders as mentors are an asset in many high schools where leadership and governance demands are too great to be addressed by one administrator.

APPENDIX G

NATIONAL GOALS FOR EDUCATION

National Goals for Education

1. By the year 2000, all children in America will start school ready to learn.
2. By the year 2000, the high school graduation rate will increase to at least 90 percent.
3. By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.
4. By the year 2000, U.S. students will be first in the world in science and mathematics achievement.
5. By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

APPENDIX H

CAMP LEJEUNE DEPENDENTS' SCHOOLS GOALS 1990-1991

CAMP LEJEUNE DEPENDENTS' SCHOOLS
GOALS 1990-1991

I. TO IMPROVE PROFESSIONAL TREATMENT OF TEACHERS

- Enhance the CLDS teacher evaluation process to include:
  - Reviewing uses of the PDP and TPAS
  - Formalizing the teacher alternative evaluation process
  - Studying additional means of enhancing the personal and professional growth of teachers
- Implement site-based School Improvement Teams and Parent Advisory Groups in each school.

II. TO IMPROVE INSTRUCTION AND STUDENT LEARNING

- Improve student achievement to include:
  - Increasing student achievement in reading to above the 60th percentile on Total Reading at every grade level
  - Increasing overall student achievement to above the 60th percentile on Total Battery at every grade level
- Continue development and implementation of the CLDS Learner Outcomes (CLOS) in all curricular areas, at all grade levels, at all phase levels to include:
  - Initial use of K-5 Health Education Curriculum
  - Use of developmentally appropriate instructional practices in all kindergarten and first grade classes
  - Use of an integrated whole language approach to the teaching of reading, writing, speaking, listening, and thinking
  - Use of NC Communication Skills and Mathematics assessment processes in grades K-2
- Implement a restructured Middle School to include grades 6, 7, and 8.
- Implement the restructured K-3 grade gifted education program (PALS)
- Implement an education program for handicapped children ages 3-5.

III. TO REVIEW PROGRAMS AND CURRICULA AND TO INSURE COMPLIANCE

- Prepare for Southern Association of Colleges and Schools (SACS) reviews to include:
  - Preparing for five year review of Lejeune High School, spring 1991
  - Initiating the two year self-study process in grades K-8 and in the central office
- Insure all confidential files of children receiving special education services are in compliance with federal laws and Section 6 guidelines by 31 October 1990.

APPENDIX I

REFERENCES PROVIDED FOR PARTICIPANTS

SCHOOL IMPROVEMENT GROUPS NETWORK

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(a partial listing)

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APPENDIX J

A COMPARISON OF SIGN THEORETICAL BASES WITH SIGN AS IMPLEMENTED IN THE CAMP LEJEUNE DEPENDENTS' SCHOOLS (CLDS)

Appendix J-1

Theory of Situated Cognition based on Cognitive Apprenticeship Model (Brown, et al., 1989)

1. Focuses on the salient features of group learning:
   a. Collective problem solving: The SIGN process was premised on collective/collaborative problem "finding" as well as problem solving.
   b. Displaying multiple roles: SIGN members engaged in a variety of roles (members of schools improvement planning teams, mentors to others in the schools, action researchers, leaders of SIGN activities, etc.).
   c. Confronting ineffective strategies and misconceptions by allowing "deep" discourse: The SIGN process allowed for both long-term, on-going reflection and intensive planning, problem solving sessions with evaluation and feedback as an integral component.
   d. Providing collaborative work skills: SIGN members received both instruction and practical experience in collaborative work in a variety of contexts (within school teams, among the large SIGN group made up of all school teams, with central office and university staff, etc.).
2. Promotes learning within the nexus of activity, tool and culture (p. 40). "Activity, concept and culture are interdependent" (p. 33): SIGN was designed and implemented as a "hands on - minds on" activity situated within the real school setting and dealing with real (not contrived) school planning and problems.
3. Suggests that learning. . .advances through collaborative social interaction and the social construction of knowledge: The SIGN process provided a setting and routine for collaboration (not isolation) among a variety of "players" in a network comprised of local schools, central office, and universities.
4. "Suggests that activity and perception are importantly and epistemologically prior -- at a nonconceptual level to conceptualization" (p. 41). "Learning and activity are interestingly indistinct, learning being a continuous life-long process resulting from activity in a situation" (p. 33): Learning in the SIGN project progressed through an ongoing process of introduction, discussion/reflection, planning, implementation, reevaluation, reflection, revision, conceptualization, discussion/reflection, etc.

5. Refers to structuring authentic activity - "The environment, therefore, contributes importantly to indexical representations people form in an activity." "Knowledge, not just learning, is situation" (p. 37): "Knowledge" created by participants in the SIGN process was both setting and situation specific but by reflection and conceptualization could be adapted by each participant and each team to other settings and situations.

Appendix J-2

Theory of Situated Cognition Based on Perkins and Salomon (1989, pp. 23-24)

1. Suggests the synthesis position of bringing together context-specific knowledge with general strategic knowledge: The SIGN process provided broad, generalized knowledge in topics important to school improvement through presentations, discussions, readings, etc., but also allowed practice-based knowledge to develop through the use of the general knowledge in relationship to real problems identified by schools.

Appendix J-3

Cognitive Learning Theory Based on Prestine and LeGrand (1991)

1. Suggests situating education administration students in projects (theory and practice): The SIGN process provided a setting in which leadership teams (as opposed to single students) were situated in a project that allowed the merging of theory and practice as the teams dealt with school leadership issues.
2. Recommends that "course content becomes a part of the process rather than end in itself, allowing a dialectic to develop between theory and practice" (p. 75): The "course content" of SIGN was a combination of generic education and leadership information and specific problem-centered information that related to each school's particular needs. The dialectic, or discussion, that resulted proved to be one of the most meaningful and valuable results of the SIGN process.
3. The Cognitive Apprenticeship Model (Brown, et al., 1989) contains 6 teaching methods:
   a. Modeling - "Instructor demonstrates not simply the 'right answer,' but the process of using and managing knowledge in problem understanding and problem solving" (p. 76): Modeling in the SIGN process occurred in several ways. By the open discussion and progress reports presented by each school team, other SIGN teams had the opportunity to adopt/adapt problem solving ideas and strategies modeled by the other schools. In addition, teachers received intense exposure to the leadership styles of principals, central office staff, university personnel, and other teachers. Since "real" problems and planning were the focus of SIGN projects, the "right answer" effect was minimized and the problem finding/problem solving process was maximized.
   b. Coaching - "Participating in groups, instructor has the opportunity to give assistance, clarification, and direction as necessary" (p. 76): In the SIGN process, the "instructor" position was replaced by the "facilitators" who were active participants in the project.
   c, d, & e. Scaffolding, articulation, reflection - "Instructor comments on students' use and integration of conceptual knowledge to inform practice, suggesting new approaches and alternatives for consideration." Articulation and reflection is based on "examining roles of knowledge-in-use and professional knowledge in

practitioner problem-solving context" (p. 77): SIGN facilitators and other SIGN members engaged in deep discourse and reflection about SIGN projects throughout the school year. Projects were implemented, reconsidered, and revised based on input from facilitators as well as from other SIGN participants. SIGN focused on in-house "experts" to identify and solve site-based problems with outside facilitators providing much of the professional knowledge to support the process.

f. Exploration - "Aimed at encouraging learner autonomy not only in carrying out expert problem solving process, but also in defining or formulating the problems to be solved" (p. 70): SIGN was based on the development of in-house "experts"; problem "finding" as well as problem solving; and autonomy of school groups and individuals as opposed to directives from a central authority.

g. Sequencing - "Increasing complexity so whole is understood before attending to and mastering, specific parts" (p. 70): In the first year (1989-90), the SIGN project required only that school teams identify and plan strategies to solve <u>one</u> problem through the collaborative, shared-decision process. The schools were free to do more than this if they chose. This was a deliberate decision of the SIGN developers in order to provide practice in shared-decisioning. In the second year (1990-91), each school developed or began a comprehensive, five-year school improvement plan, thereby increasing the complexity of the task over the task of the previous year. This step was not a deliberate one of the SIGN planners but arose in response to the school system's entrance into a new accreditation process that was consistent with the SIGN process. The sequencing aspect of SIGN as a long-term (over a span of years) process was not as deliberate as it might have been due to the uncertainty of continuation after the first year. Additional uncertainty can be attributed to the intent of SIGN planners to leave, as much as possible, the control of the nature of SIGN in the hands of participants.

h. Sociology - "Knowledge that will guide expert practice is learned in context of its application to realistic problems within the culture of actual practice" (p. 70): SIGN members deal with "real" problems and planning in the context and culture of the schools and the system in which they worked.

Appendix J-4

Theory of Adult Learning [Cranton (1989) - based on Knowles (1980, 1984)]

1. The learning climate, both physical and psychological, should be carefully constructed: The SIGN process was an effort to place teachers and administrators in a setting away from the school site to minimize distractions and maximize a sense of professionalism. Team members were recognized as competent professionals who were capable of making their own decisions and planning for school improvement. The specific intent of SIGN planners was to recognize the value and expertise of site-based educators in an effort to increase their sense of professionalism.
2. Learning needs should be diagnosed by the learner: SIGN participants identified problems on which to focus and goals for school improvement.
3. Learners should be involved in planning their own learning, with instructor acting as guide and resource person: SIGN teams developed their own plans with the site director and site coordinator serving as facilitators. Central office staff and university personnel also served as facilitators when necessary.
4. Teaching and learning process is the mutual responsibility of the instructor and learner: SIGN team members, project facilitators, central office staff, and university personnel served in multiple roles as both learners and teachers in the SIGN project. Teachers and other members of the site-based teams served as instructors for the systemwide SIGN group when they critiqued articles, presented the progress and results of their projects, exchanged articles, books, and other information, and presented summaries of their readings.
5. The learner is involved in self-evaluation, with instructor assisting learner in obtaining evidence about the progress they are making toward their goals: All SIGN teams planned and carried out project evaluations in both years of the study. They were assisted in this by the site director, site coordinator, central office staff, university personnel, and members of other school teams.
6. Instructional techniques should utilize experiences of learners (discussion, problem-solving, group work, case studies, experience, etc.): SIGN projects were based on problems and planning relevant to participating schools. Discussion, problem identification, problem solving, group work, and experiences of the participants were all key considerations in SIGN design. Case reports of similar

efforts in other school systems were used as were on-going case reports by members of the CLDS SIGN groups.

7. Practical applications of learning should be emphasized and related to live-situations of the adult learners: SIGN plans were based on situations in the schools of the participants and the actual implementation of these plans resulted in practical applications of learning for SIGN participants.
8. The starting point for instruction should be the problem or concern that adults have as they enter the educational setting: SIGN projects were based on problems/concerns identified by school teams rather than those prescribed from sources outside the school, especially in the first year (1989-90). By year two (1990-91) however, central/state level initiatives became a part of the SIGN process and most schools "decided" to structure their school improvement process in a way consistent with accreditation requirements.

Appendix J-5

Concept of Synergogy (Mouton & Blake, 1984)

1. "A systematic approach to learning in which the members of small teams learn from one another through structured interactions": SIGN was based on small, shared decision-making teams that met on a regular basis at systemwide meetings and in the schools.
2. "Enables learners to acquire codified knowledge under conditions that arouse their involvement and commitment" (p. xii-preface): SIGN was based on the belief of the planners that involvement in activity seen as relevant by participants leads to commitment.
3. Framework: Synergogy differs from other approaches by:
   a. "Replacing authority figures with learning designs and instruments managed by a learning administrator": The authority in the SIGN process rested in the school teams. The SIGN site coordinator and director were facilitators rather than authority figures.
   b. "Enabling learners to become proactive participants who exercise responsibility for their own learning": Central or top-down control was minimized in SIGN and participants readily accepted the responsibility for keeping SIGN projects on track.
   c. "Applying to education the concept of synergy in which the learning gain that results from teamwork exceeds the gain made by individuals learning alone": SIGN was based on the belief that collaboration is crucial to addressing school problems and planning. Collective "brainpower' is the only realistic source of school improvement.
   d. "Using learners' colleague affiliations to provide motivation for learning. . . .": The SIGN process provided time and the setting for colleague affiliations with school team members, principals, other schools, central office staff, and university personnel. This proved to be a significant motivating factor reported by SIGN participants.

Appendix J-6

Teacher Professionalism Based on Grumet (1989): Mastery in Learning Project

1. Focus is on reducing teacher isolation: One of the desired outcomes stated at the initiation of the SIGN project was a reduction in teacher isolation and an increase in collaboration. By participant report and by observation of the researcher, this outcome was met for SIGN participants.
2. Relies on "talk across the curriculum": SIGN was designed to provide deep and on-going discourse about educational matters across curriculum areas, grade levels, schools, and with university and central office personnel in addition to discourse within school teams.
3. Seeks to diminish divisiveness between administrators, who have traditionally been thought to work for the common good, and teachers, who have been thought to focus on the particular good: One purpose of the SIGN project was to bring teachers and administrators together to plan and reach common understandings about education goals. Teachers would have the opportunity to "view" education from a leadership position and acknowledge the "common good." Administrators would experience more meaningfully the issues related to the "particular" good. It was an opportunity to "walk a mile" in each other's shoes and to discuss and reflect on that experience.
4. Recognizes the value in contact with the outside world: The SIGN project brought educators into contact with the outside world in a variety of ways. Systemwide meetings were held away from the school in settings that allowed uninterrupted work time. The two-day retreat at the beginning of the project provided the opportunity for participants to immerse themselves in learning about a new way of doing business in schools. Contact with the outside world also came from the university facilitators and some consultants who provided current research and brought "stories" of events in other school systems within North Carolina and in other states. Central office personnel and members of the school teams also provided news from the outside world as they gave monthly updates on the events occurring within their school teams as they worked on SIGN projects. Members of some school teams visited other school systems and attended professional meetings related to their SIGN projects outside the school system.

5. Recognizes the need for time for all teachers to meet during the school day (superintendent sends all students home early two days a month): Based on research in effective inservice programming, the SIGN developers included meeting time during the school day as an important component of the SIGN design. This aspect of SIGN was consistent with the researcher's belief that collaborative planning, reflection, and evaluation of education goals is as legitimate a part of the process of education as delivery of instruction, and that these activities are properly conducted within an educator's "work day."
6. Recommends that the superintendent meet with them the first time: The superintendent of the CLDS exceeded this expectation consistently throughout both years of the SIGN study. His support included active participation in numerous SIGN meetings as he facilitated both the large group made up of all school teams and individual teams. SIGN meetings provided a valuable opportunity for direct interaction between CLDS teachers and the superintendent, something that is not common in most of today's school systems. He also met with school teams at his office and in the schools when invited. He supported released time for teachers, principals, and the researcher (site coordinator) to meet for monthly SIGN meetings and assistance in the form of materials and services as SIGN groups worked on school improvement goals. It would be misleading to suggest that most of these activities were new events that resulted from the SIGN process. They were not. The CLDS superintendent has a history of support for innovative projects in the school system. However, his support for the SIGN project was extensive and his active participation is considered to be a critical factor in the success of SIGN. This differs slightly from other research in school restructuring that points out the importance of the "cheerleading" function of school administrators (Joyce, et al., 1989) and suggests that active participation is as important as "cheerleading."
7. Promotes discussions that move them from a collection of autonomous individuals with little internal communication to a faculty utilizing a collective approach to education: Project SIGN addressed a concern of educators that they had little time to interact with each other during the school day. Isolation and autonomy among teachers and principals in schools is not so much a choice of educators as it is a result of school days that are so filled with requirements that there is simply no time to talk with each other about matters important to the education of their students. One goal of Project SIGN developers was to provide a structure that

allowed time for discussion. This goal was met and site educators recognized this as one of the major contributions of the SIGN process.

8. Recognizes that faculty ownership of programs results in teachers' working to improve them: Ownership of projects developed by school teams in the SIGN process was a result of ensuring that control of the projects was in the hands of the team. SIGN focused on activity and reflection, a blend of "hands on" and "minds on" work that built commitment among participants. Evidence of this commitment was seen consistently throughout the project as teams worked "overtime" to successfully implement their plans. Many SIGN participants verbalized this commitment with strong statements of support and ownership.
9. Suggests a curriculum council that communicates faculty opinions to the school board: Members of SIGN teams worked on both curriculum and governance issues but there was no formal structure through SIGN for participants to communicate directly with the CLDS school board. When this occurred, it was through channels already established in the CLDS. Teacher members of SIGN teams did, however, in the first year of the project attend a system-level meeting of administrators to report on the SIGN projects of their teams.
10. Recommends that teachers begin their own research programs to determine the value of certain programs: An important component of SIGN was that school teams learn the importance of ongoing evaluation of school projects. School teams critiqued and provided feedback to other teams as they reported on the activities of their group at monthly meetings. Inservice presentations included program evaluation instruction. All school teams demonstrated an understanding of the importance of ongoing evaluation and each team was involved, to varying degrees, in planning and implementing project evaluations as a component of SIGN. Based on observation by the researcher and feedback from system-level personnel trained in program evaluation, this area needs further work if school teams are to assume full responsibility for program evaluation in their schools.
11. Rests on the belief that "Teacher empowerment does not require development of group process or leadership skills. Teachers are confident, generous, creative": Although the SIGN process provided an arena in which teachers could "practice" leadership and group process skills, SIGN was implemented with the expectation and belief that teachers already possessed many of the skills that they needed to function in leadership capacities. School team members were asked to identify the areas of

leadership and group process in which they needed additional help. SIGN facilitators then assisted in providing both systemwide and/or school level inservice to meet these needs.

Appendix J-7

Teacher Professionalism Based on Keedy (1988, 1989) - Teacher Collegial Groups

1. TCG and SIGN rationales are similar in that both grew out of needs based on teacher isolation and autonomy, both are grounded in theories of adult development and learning, both rely on teachers as resources for each other, and both view teachers as the "solution and not the problem" in improving schools. Both SIGN and TCGs were designed to facilitate teachers' willingness to change through developing the collegial interaction in schools.
2. A primary difference between SIGN and TCG is found in the role of the principal. In TCGs the role of the principal is to understand TCG success factors, select a group facilitator, to support TCG projects, and to provide resources. In the SIGN project, the role of the principal or site-administrator is to fulfill the expectations of TCG participation, but to go further and to become an active team member. Administrators in the SIGN process participate in all monthly meetings, suspending as much as possible bureaucratic constraints and engaging in consensus decision making. Principals in the SIGN project undertook this challenge and most were successful in adapting to a new role as members of a leadership team. One finding of the SIGN study was that each principal or site-administrator adapted to the new role in a unique way that suited both their setting and their own leadership style. SIGN results indicate that there is no one "right" way for principals to function as members of leadership teams. Instead, various different ways can be successful if a bond of trust has developed between team members.
3. The TCG and SIGN processes share similarities in that overall goals are established at the beginning of the school year and incremental "gameplans" are used to establish the focus for improvement plans between meetings. At each meeting colleagues assist each other in analyzing implementation steps that have occurred since the last meeting and plans are revised as needed. Differences exist, however, in that TCGs focus on improvement for the individual teacher first, then for the school. In SIGN, the improvement focus is on the school first, then the individual. In SIGN, networking structures also provide an additional focus on system-level and central office improvement and the improvement of university training programs. In TCGs, networking and collaboration occurs among teachers at the school site. In

SIGN, networking and collaboration occurs among teachers, administrators, university and central office personnel away from the school site first, then among teachers and administrators at the school site. In addition, SIGN developers planned for observable change and new processes as major outcomes of the project.

Appendix J-8

Teacher Professionalization Based on Joyce, et al. (1989) - Restructuring for Professionalization/Empowerment

1. Adheres to Fullan's thesis (1982) that "It is the bond of shared understanding and common language that sustains innovations and reduces the stress of change" (p. 71): Project SIGN allowed the development of a common language and shared understanding in the process of planning for educational change. The experience of the researcher is that successful educational change can be accomplished only when this shared understanding is allowed to develop. This is consistent also with theories that explore the relationship between communication and change (Achilles & Norman, 1974; Achilles, 1986).
2. Proposes a "theory-demonstration-practice-coaching paradigm" for training: Project SIGN used a similar paradigm but implemented it in a holistic or global manner rather than in a sequential manner. The different parts of the paradigm were overlapped and intermingled and the "practice" component most often involved implementation of plans in real, rather than contrived, situations.
3. Utilized a "peer coaching" process where teachers were organized into study groups and the faculties into problem-solving groups: One component of SIGN meetings was the "study" of new research, theories, ideas, etc. by the systemwide SIGN group. Projects were planned from real problems identified by SIGN members with input from faculties in the schools. (This interaction with school faculties grew over the two years of the study. By the end of the second year most schools had established school improvement committees that included all school faculty members and, in some cases, staff, parents, and students.
4. Focused content of training on teaching strategies that increase students' learning by affecting their aptitude to learn (specific student focus): SIGN teams were free to choose whatever focus that they identified as necessary for improvement in their individual schools. Some projects were specifically student focused ("at risk" planning, learner outcomes, explorations, etc.) while others were not. True to the SBM focus of the SIGN project, this decision was left up to the school teams.

5. Reduced teacher-administrator division: The SIGN process brought teachers and administrators (both site-level and central office) together in a collaborative atmosphere with the intent of reducing teacher-administrator division.
6. Increased cooperation between classrooms and teams of teachers: SIGN participants reported that they experienced a growing level of acceptance by school faculty members of leadership from SIGN teams. By the end of the second year of the study, SIGN participants felt that school faculty members were interested enough in the SIGN process to seek affiliation and participation on both school-level and system-level SIGN teams.

Appendix J-9

Instructional Leadership Based on Brubaker (Dec. 1988)

1. Defines curriculum leadership in terms of "what students and adult educators experience as they cooperatively create learning settings" (p. 175): The SIGN project was an exercise in the creation of a learning setting for adult educators with one goal being the development of strategies for instructional leadership.
2. States that "the principal's role is to give leadership to teachers, students, and community members using his/her expertise in creating learning settings" (p. 177): The SIGN project sought to place the principal in a new role as an integral part of a leadership team that would share leadership with teachers, and to some degree with other staff, students, and parents. SIGN results indicate that principals in the project readily accepted this challenge and met with varying degrees of success. Perhaps a more important result was that teachers recognized the effort of principals in this respect and this led to a greater willingness in both teachers and administrators to view schooling from different perspectives.
3. Proposes that one major role for the principal is as the creator of learning settings and that, in this role, the principal would focus on the "uniqueness model vs. the deficit model," would recognize that all are learners, would create a variety of learning settings, and would recognize that each setting has its own personality and that the personality can change: The researcher in the SIGN study adopted these roles of the principal as roles appropriate to leadership teams in the SIGN study.
4. Proposes that a second major role for the principal is as planner, and that, in this role, the principal would seek to achieve a new understanding rather than control: In the SIGN study, the leadership team was given the responsibility for planning, with the expectation of SIGN developers that understanding, not control, was the desired outcome.
5. Promotes a process of "doing with vs. doing unto": The SIGN project was designed with a basic underlying assumption that education should be largely a process of "doing with" and minimally a process of "doing unto."
6. Values "praxis" in which theory and practice inform each other: The SIGN project was based on the development of an ongoing dialectic between theory and practice as

ideas were introduced and discussed, plans were developed and implemented, progress was reviewed, new theories suggested, and plans were revised, etc.

Appendix J-10

Instructional Leadership Based on ASCD Videotape - "The Principal as Instructional Leader" (1984)

1. Proposes 5 broad areas of curriculum leadership:
   a. The principal has and articulates a vision: In the SIGN process the focus is on the development of a "shared vision" rather than one that is identified with one individual.
   b. The principal is engaged in participative leadership: This area of curriculum leadership is consistent with the goals of the SIGN project that involved establishing greater participation by teachers and other members of the school community in decisions that affected them.
   c. The principal is engaged in supportive leadership: In the SIGN project, all members of the leadership team provided support for each other. This recognizes the isolation of principals, as well as of teachers, and attempts to meet their need for support in addition to the teachers' needs for support. SIGN developers also sought to meet the support needs of a larger number of individuals in schools by creating a network of support that involved central office and university personnel as well as school-based personnel. SIGN team members were able to provide greater support to individuals back in the schools than had been possible by one administrator acting alone.
   d. The principal monitors and provides feedback: SIGN leadership teams monitored and provided feedback to each other as they worked on school improvement goals. The role of the individual principals in monitoring and providing feedback to teachers in classrooms was not a focus of the SIGN project. This process in the CLDS is well defined and uses mentor teachers and central-level observers for initially certified teachers. Principals alone, at this point, retain the primary responsibility for carrying out monitoring and feedback for career teachers.
   e. The principal secures resources for the school: In the SIGN study, principals remained the primary securer of resources for the schools. In both years of the study, this topic arose in connection with goals pursued by various school teams. One team sought to secure the resource of greater planning time by

researching and making an unsuccessful proposal for released time for planning on a regular basis. The program budgeting process in the CLDS in many ways provides teachers with substantial input in the identification of resource needs and the requests for resources. However, teachers report that they do not feel that they understand the process of securing resources once the requests leave the school site. The impression reported by many teachers is that they have little input into planning and decisions about resource allocations in the school system. The observation of the researcher is that this impression may be due largely to the complexity of the bureaucratic system within which the CLDS exists (federal government, Department of Defense, Marine Corps Base, etc.) and the uncertainty inherent in a budgeting system that often operates on a Continuing Resolution bases with regard to the Congress of the United States. All of these factors create a situation where clear communication is, at best, difficult and, at worst, impossible. Some teachers report that they would like more input into and information about this complex process. Others simply would like more feedback about what happens to their requests for resources as they progress through the procurement process.

Appendix J-11

Communication/Change (Achilles & Norman, 1974; Achilles, 1986)

Project SIGN was implemented following theoretic considerations of the change process model (Figure 4) and employed the following processes for each step or level.

Figure 4 about here

Level I: Dissemination (Awareness and Conceptual Control): Pre-reading materials (articles, selections, etc.) of the type listed in Appendix I; brief lectures by consultants on selected topics (strategic planning, educational change, collegial groups, school restructuring); one-way communication processes (information about SIGN, progress reports); and sharing of stories about systems where certain goals had been accomplished.

Level II: Demonstration (Trial, Skill-Building): Visits to other systems; group-process work sessions that were the "heart" of SIGN monthly meetings; sharing among groups during and between SIGN meetings; question-and-answer sessions and discussions; critiques of books and ideas, etc.

Level III: Diffusion (Use, Adoption/Adaptation): Reports to and meetings/negotiations with teachers back at school; meetings with administration, implementation of SIGN ideas ("at risk" student tracing, five-year plan, "on-the-wall" curriculum, etc.).

Level IV: Application, Development (Inclusion, Institutionalization, Refinement): SIGN team members became mentors to other members of school faculties and invited them to participate in SIGN meetings; by 1990-91, SIGN was adopted in all schools and was meshed with the Southern Association of Colleges and Schools (SACS) site-based school renewal process, system level strategic planning, and national goals for education.

Level of Activity	Purpose(s)	Relation to Change	Method(s)
I	Understanding. Conceptual control.	Awareness/Interest. Knowledge of new ways. Get things started. Initiation.	Lecture. One-Way Didactic with some Question & Answer (Q&A). Dissemination.
II	Build Skills. Expand the Knowledge Base.	Trial/Evaluation. Implementation, even on a pilot basis. Confirmation.	Two-way communication. Q&A, discussion and critique. Case studies. Observation/ Demonstration.
III	Synthesis. Transfer Skills and Knowledge	Use/Adoption or adaptation. Incorporation.	Practice and Feedback. Simulation and role play. Involvement/Coaching. Action plans.
IV	Application of Skills/Knowledge Self-Assessment.	Institutionalization and renewal.	Counseling. Consulting. Synthesis. Analysis of practice. Reflection.

Figure 4. Model for directing positive change.

Appendix J-12

Comparison of SIGN with Characteristics of Effective Inservice Practices (Daresh & LaPlant, 1984)

Daresh & LaPlant	SIGN
1. Effective inservice is directed toward local school needs.	1. SIGN needs were identified by site-based teams.
2. Inservice participants are actively involved in the planning, implementation, and evaluation of programs.	2. SIGN participants planned, implemented, and evaluated their own improvement projects, assisted by consultants.
3. Effective inservice is based on participant needs.	3. SIGN teams identified their own needs.
4. Active learning processes, rather than passive techniques such as lectures, characterize effective inservice instruction.	4. SIGN teams actively implemented their plans and constantly updated them during the school year. Lectures were only a minimal part of the SIGN process.
5. Inservice that is part of a long-term systematic staff development plan is more effective than a "one-shot," short-term program.	5. SIGN was carried out for an entire school year and will expand and continue during the following year.
6. Effective local school inservice is supported by a commitment of resources from the central office.	6. The central office committed substantial support in the form of substitute pay, released time for participants and co-director, and logistical support.
7. Effective inservice provides evidence of quality control and is delivered by competent presenters.	7. SIGN presenters were university professors with expertise in the subject areas. SIGN participants and presenters monitored the progress of projects.
8. Programs that enable participants to share ideas and provide assistance to one another are viewed as successful.	8. A particularly strong component of SIGN was the emphasis on professional collaboration, feedback, and assistance.

Appendix J-12 continued

9. Inservice programs are effective when they ar designed so that individual participant needs, interests, and concerns are addressed.	9. Individual participants received renewal credit as well as considerable reduction in feelings or professional isolation. Needs identified were school-centered rather than focused on the individual.
10. Rewards and incentives, both intrinsic and extrinsic, are evident to program participants.	10. Feedback from SIGN participants indicates awareness of both intrinsic and extrinsic rewards and a desire for SIGN to continue.
11. Inservice activities are provided during school time.	11. SIGN was carried out during school time.
12. Effective inservice is accompanied by ongoing evaluation.	12. Informal updating occurred at each meeting, with more formal evaluation conducted periodically throughout the year and at the end of the year.