Team teaching: A study of collaboration

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Team Teaching:
A Study of Collaboration

by
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Presented in Partial Fulfillment
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The purpose of this study was to learn more about the motivations that lead teachers to work in teams, and the educational impact of teams on teachers and the instructional program in grades 1-6. The study also examined the role educational leaders play in supporting team teaching. The study utilized a qualitative framework to address these questions: What leads teachers to form collaborative teams? What facilitates and makes teaming operational? How does teaming improve teaching? How does teaming improve learning? How do educational leaders initiate and support teaming? Analysis of data from interviews, observations, and document analysis of team teachers and their principals led to these conclusions:

1. Teacher Empowerment. Most teaming began with small voluntary collaborative ventures. Classroom teachers were the primary instrument of change.

2. Inclusion. In 1990, inclusion opened classrooms to serve all students including those with disabilities, resulting in new collaborative arrangements between specialists and school personnel. A majority of the teams in the study began soon after adoption of inclusion.

3. Improved Teaching. Working with another professional increases accountability, reduces stress, and increases job satisfaction and performance.

4. Improved Learning. Teams utilize more active learning which contributes to greater student interest and engagement. Working with more than one teacher provides multiple teaching approaches, and helps prevent students from "dropping through the cracks".

5. Cooperative Learning Link. Team teaching takes the guiding principles of cooperative learning for students and applies the same ideas to teachers.

6. Culture of Learning. Findings indicate that team teaching perpetuates a culture of continuous learning.

The results of the study point to team teaching as a way to operationalize concepts of teamwork and community. The study provides considerations and policy implications for teachers in teams, for teachers considering teaming, and for the educational leaders who support them.
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CHAPTER 1

INTRODUCTION

Two are better than one, because they have a good reward for their toil. For if they fail, one will lift up the other; but woe to one who is alone and falls and does not have another to help. Again, if two lie together, they keep warm; but how can one keep warm alone? And though one might prevail against another, two will withstand one. A threefold cord is not quickly broken.

Ecclesiastes 4: 9-12

Working together is a valuable old idea as proclaimed by the ancient Biblical writer in the book of Ecclesiastes. Although his identity has been lost to antiquity, the Hebrew writer's wisdom speaks to humankind across the centuries. The writer's message is that two people working together are more effective than two people working separately—in essence, two heads are better than one, two hearts are better than one, two bodies are better than one.

Throughout history, human beings have worked together to achieve mutual goals, and to accomplish feats greater than what either individual could accomplish alone. Anthropologically, the continuation of the human species both in the past and in the future is based more on cooperation and sharing than it is on the strength of individuals. Human beings are innately social creatures, favorably disposed toward working together in community. In writing on the evolution of humans, Lewin (1984) points out the innate need for connection with others. Lewin believes that the reason human beings developed a large complex brain
was for the purpose of providing the interactive capabilities needed for a cooperative lifestyle.

In contrast to community and cooperative lifestyles, most schools are organized in an individualistic and highly competitive way. Teachers lead daily worklives that are autonomous and separate from other teachers (Sergiovanni, 1994). Rather than sharing resources and expertise, teachers strive to solve their own problems and vie with each other for recognition. In writing on schooling, Sergiovanni (1989) states that "the least common form of relationship among adults in schools is one that is collegial, cooperative, and interdependent" (p. 230). In some school settings, teachers choose to break the traditional pattern of isolation, and join together to create what is known as a teaching team. The idea of teaching teams is a pedagogical strategy with roots that go back to the beginnings of time. The basic concept is that two adults working as a team can accomplish more than two adults working individually.

Historically, team teaching in America can be traced back to the one room schoolhouse which often evolved to include more than one teacher. As the size of the student group grew, a second teacher was added. One group of students was served by two teachers who shared instructional responsibilities for all members of the group. During the thirties, John Dewey created teacher teams to work in the
classrooms of the laboratory school in the University of Chicago. Dewey believed that teachers working together provide a richer educational environment for students (Pulliam, 1987). Since the time of progressive era experiments, teaming has reemerged twice, during the decade of the sixties and again in the nineties. Both in the sixties and in the nineties, the emergence of teaching teams has been part of attempts to restructure and reform education (Pugach & Johnson, 1995).

Future trends in education suggest a move toward an emphasis on more collegiality, more cooperation, and more teaming (Wise, 1996). Current literature indicates interest in collaborative teaching teams as an innovation with promise for the present and the future. The reason for this interest is the growing recognition of cooperation as an essential work trait for people in the "real world". Schools must model this trait, and give both teachers and students opportunity to gain training and experience in working cooperatively. Researchers such as Bonstingl (1992), Sergiovanni (1994), and Slavin (1990) praise the role of teaming in schools. Teaming on the part of teachers parallels the current interest in cooperative learning experiences for students. When teachers work together cooperatively it is called teaming, when students work together it is called cooperative learning. Teacher teams provide a model of cooperation for students. Students see
and experience firsthand how two adults share and work together (Johnson, Johnson, & Holubec, 1990).

This study seeks to learn more about the reasons teachers choose to move into team teaching arrangements, and why the teams continue. Further, this study identifies the role administrators play in initiating, supporting, and maintaining teams.

The remainder of this chapter includes the purpose of the study, the statement of the problem, the research questions, the contribution the study makes to the field, and a definition of terms used throughout the study.

**Purpose of the Study**

The purpose of this study is to discover insights in the motivations that lead teachers to form and work as teams. The study examines the educational impact of teaming and its influence on the lives of teachers, children, and the instructional program. Knowledge of the factors that help facilitate the structuring of teams, and awareness of the personal attributes that create a good team match will be informative for educational leaders as they consider and implement teams. In order to initiate and support teaming, school leaders need more information than is presently available. Leaders will become better informed as more information is generated by research in the field.

The trend toward teaming as an innovative practice in the restructuring of schools, calls for expanding the
knowledge base on this practice. Greater knowledge will help build a positive future for the development of teaming. With more information available, teachers can consider and select team teaching as a pedagogical tool, and as a practice with positive implications for students. School leaders will gain insights into the potential and possibilities for initiating teacher teams in their schools. The search for literature on teacher teams indicates a scarcity of sources, and clearly points to the need for expanding the knowledge base in this area.

**Statement of the Problem**

The story of the survival of the species is one of human cooperation. Humans beings are predisposed toward cooperative interaction with other people. Outside of schools, the heart of most jobs is teamwork, getting others to cooperate, sharing ideas and resources, solving problems together. "Teamwork, communication, effective coordination, and divisions of labor characterize most real-life settings" (Johnson & Johnson, 1990, p. 17).

By contrast, schools are organized with adults and children working in individualistic and highly competitive settings. Children are taught to work on their own, and that helping other students is cheating (Lyman & Foyle, 1990). The individual is the key unit, striving for mastery and individual excellence as compared with others. Students compete with each other for grades, teacher approval, and
other rewards (Kohn, 1992). In the school setting, teachers also lead isolated worklives, separated from other adults by the boundaries of the classroom walls. The isolated individualistic nature of teaching parallels the isolated individualistic nature of a student. Neither are suited to the realities of what is required of human beings outside of school settings. Clearly, the individualistic emphasis in schools is contrary to the demands of complex human interactions and interrelatedness in the real world. According to Johnson, Johnson, and Holubec (1990), students live in a world increasingly characterized by interdependence. The major problems faced by humans today and in the future cannot be solved by solitary individual effort, but require connectedness and cooperation by people globally.

Today's schools are at a turning point, where the decision must be made by educational leaders whether to design the organization around teaming and cooperation or individualism. The choices represent two distinct ways of thinking and doing. Each is a complete paradigm, a system of thinking with rules and methods that embrace and sustain the system. In writing on the theme of leadership for tomorrow's schools, Patterson (1993) states, "either we organize to support individual performance or we organize to support a team concept" (p. 85). Patterson believes school leaders must chose between the paradigm of individualism and
the paradigm of teamwork. Wise and Leibbrand (1996) state, "Teaching is undergoing a renaissance. It is evolving into a shared, collegial experience rather than the traditional solitary one" (p. 206). Cooperation and teamwork appear as a common characteristic of schools showcased by reformers (Westheimer & Kahne, 1993). The social mode of working and learning is replacing education's strong tradition of isolation and individualism.

This inquiry focuses on the realization that the paradigm of teamwork offers a positive choice for educational organizations. The paradigm of teamwork provides a framework for restructuring schools that is rich in possibilities and implications. As a concept, teamwork can apply to all aspects of the school. The trend of the future leans toward the paradigm of cooperation and teamwork and is further developed in this study.

**Research Questions**

The research questions that direct this inquiry are as follows:

1. What leads teachers to form collaborative teams?
2. What facilitates and makes teaming operational?
3. How does teaming improve teaching?
4. How does teaming improve learning?
5. How do educational leaders initiate and support teaming?
Contribution to Field

The study contributes to the field of educational leadership in three areas. It provides information for (1) school administrators considering teaming for school improvement, (2) teachers thinking about teaming as a pedagogical strategy, and (3) teachers currently involved in teaming. The study provides both theoretical and practical information.

School Administrators.

Findings from the study will help inform educational leaders of the potential for teacher teams, and elucidate ways to lead in initiating this innovation in a school. Information generated by the study will give leaders a clearer understanding of the educational significance of teaming. Administrators will be able to understand the leadership role needed and the kind of support necessary to facilitate teaming. Administrative leaders supervise teaching staffs and have the opportunity to influence adoption of pedagogical practices involving teamwork as a means for school improvement.

Teachers Thinking about Teaming.

The results of this study will provide teachers with insights into the potentiality of forming teams and with models for team formation. Teacher interest in teaming may be kindled and encouraged by means of this study. Teachers may take courage in teaming's philosophical implications for
the present and future of teaching, and for the benefits of
teaming for students and learning.

**Teachers Involved in Teaming.**

Teachers already involved in teaming will find the study provides increased self-knowledge, a basis for comparison with other functioning teams, and an opportunity for validation of this educational practice. Team teachers are likely to see aspects of themselves in the study and gain ideas for further development of teaming strategies.

**Definition of Terms**

The following terms are used throughout this research study and are defined accordingly.

**Teaching Teams.** **Teaming.**

An organizational plan by which two or more teachers band together and share responsibility for a group of students. Teams may be organized according to grade level, subject matter, pedagogy, interdisciplinary, and multipurpose (a combination of team types) (Maeroff, 1993).

**Job-Share Teams.**

Two teachers share one job, each usually working half time. The two teachers serve the same group of students.

**Collegiality.**

Working together. The sharing of power or authority equally by professional associates.
Collaboration.

The process of working together in an intellectual endeavor.

Cooperation.

The process of acting and working together for mutual benefit.

Conclusion

Teachers working together in teams is an old idea gaining new attention and respect for its potential to improve educational practice. Teaming offers potential as an alternative way of organizing schools as a workplace and learning site. The process of working and learning together fosters human connectedness and enhances human values. Teaming is the antidote to teacher isolation and provides the synergism to create something bigger and better than its individual components. Working and sharing as a team enables teachers to face the challenges of school and to build a better future. Teacher teams model the practice of cooperation for students. Teamwork is essential in the world of work, home, and community. The one attribute that facilitates all other skills and abilities is the ability to work cooperatively with others. The next chapter develops these ideas further through a review of the literature.
CHAPTER 2
REVIEW OF LITERATURE

In the wake of a new millennium, educational researchers and practitioners are searching for ways to improve and change schools to better prepare students for the future. Today's students will work and live as adults in the next century. In considering the future era, educators realize the difficulty of predicting exactly what educational experiences will prepare children for productive adult lives. Rapid change characterizes the present and will continue into the future. The future will not replicate the past or the present. Change itself is the one thing of which educators are certain. How can schools achieve the goal of equipping today's students for the future? What values, skills, abilities, and understandings will students need in the next century? There is a growing awareness that schools are changing and will need to shift priorities to meet the challenges of a rapidly changing world. As educators consider the future and ask what students need in the next century, a bewildering array of school reform plans provide potential solutions.

Since 1957 when the launching of Sputnik prompted a major revision of science and math studies in this country, dozens of proposals, plans, reports, and papers, have called for change. Spurred on by another round of school reforms
in the 1980's, writers of current educational research literature continue to propose recommendations for the kinds of changes needed in schools. The call for change is a perennial topic in education, however, in the past two decades, school reform plans have proliferated at a dizzying rate. The challenge is to sift through and evaluate the reform possibilities, and to discover what has potential in a given school situation. According to Fullan and Miles (1992), educators face an "enormous overload of fragmented, uncoordinated, and ephemeral attempts at change" (p. 745).

Most of the component parts of school change models are not novel or original, but are revivals of ideas gleaned from the past. One old idea that appears anew in many of the school change models is team teaching. The review of literature begins with a look at school change models in connection to team teaching.

School Change and Team Teaching

Looking at reform proposals is to view a bewildering array of possibilities. Many propose stricter standards as a means to achieve excellence. Much reform content is contradictory and disconnected to the realities of schools, teachers, and students. Plans generated by private foundations, government entities, and individual critics, may have little connection to schools. In reference to reform movements, Pulliam (1987) notes it is easier to call
attention to a problem than it is to provide a practical means of solution.

In *The Stone Trumpet* (1994), Gibboney critiques over thirty reforms to determine a way to judge the efficacy of the various plans. Gibboney takes the position that only a limited number of school reform plans have potential for strengthening public education. Some plans may even be injurious or harmful. He proposes analyzing reform on the basis of worthiness of ideas and values. To be worthwhile, Gibboney states, "Fundamental reform is reform that is intellectual and democratic" (p. 17). Gibboney traces the roots of this criteria to the philosophy of John Dewey. According to Dewey (1938), democratic social arrangements promote a better quality of human experience and create conditions for continuing growth. In writing on restructuring schools, Ron Brandt (1995) concurs with Dewey and with Gibboney by asking two basic questions: Does the reform have an intellectual quality and does it build a community of learners? Most school change models list proposed areas for change. Comparing items on these lists provides an overview of recurring reform themes. One recurring theme is that schools must work to build a sense of community so that the participants will experience connectedness and belonging (Sergiovanni, 1994). The values of cooperation and interdependence are basic to building community. Manifestations of this theme are cooperative
learning for students, and team teaching for teachers. Both cooperative learning and team teaching satisfy the need for intellectual and democratic values as described above. In his chapter entitled "Reform's Green Fields" Gibboney includes both cooperative learning and team teaching as promising school reform practices.

In writing on a curriculum for the future, Sheeran (1996) states the importance of school settings in which "all students can learn and all teachers are provided with the opportunity to use their talents to their fullest potential" (p. 47). Sheeran recommends teachers participate in teaming and team teaching. Glasser's (1986) development of Control Theory embraces learning and teaching teams. Control Theory explains how basic human needs drive behavior, and how understanding this can lead to quality schooling. Glasser encourages teachers to work together and to learn together. Glatthorn's (1986) handbook for developing better schools recommends teacher teams as a means to achieving excellence.

The work of Maeroff (1993), Senge (1990), Sergiovanni (1989), clearly indicates new interest in teacher teams, and presents teaming as a practice with potential for school change and for building a positive educational future. The development of the use of interdisciplinary teaching teams as a characteristic of the middle school movement has helped generate interest at both higher and lower grade levels.
This investigation of teacher teams stems from the widespread interest in teaming, and is prompted by the need for development of a larger body of knowledge in this area. Little research has been done on the topic, particularly at the elementary school level, indicating a fertile area for study. School leaders and teachers must become aware of the possibilities offered by the concept and practice of team teaching and the potential for positive school change.

Team teaching has potential as a central component for school reform. It meets the criteria of being intellectual and of being democratic. According to the works of Glasser (1986) and Glatthorn (1986), teaming improves the quality of both teaching and learning. Teachers working together demonstrate a cooperative model for students. Collaboration is compatible with public education's basic beliefs and values. Teaming is rich in possibilities because it centers on the teacher, the primary conduit for learning. Working together provides an opportunity to reform learning, teaching, and curriculum. Johnston & Kirschner (1996) state that change and reform are more likely when teachers work together than when individuals work in isolation. "Unless adults talk with one another, observe one another, and help one another, very little will change" (Barth, 1990, p. 32).

The strongest reason for believing that team teaching will have a prominent place in tomorrow's instructional programs is that it provides a system for incorporating and integrating most of the major themes, or lines of
development, in the reform movement (Shaplin & Olds, 1964, p. 372).

The remainder of this literature review is centered around the following themes: (a) teaming in business and industry; (b) individualism and cooperation; (c) types of teaching teams; (d) advantages of teaming; (e) potential for change.

Teaming in Business and Industry

As schools grapple with challenges related to fiscal stress and student diversity, educators look to fields beyond their own to determine if models in business and industry "could provide some means by which schools and schooling might be productively altered" (Sheeran, 1996, p. 49). Educational leaders look to management experts for new idea possibilities to implement in schools. Senge's work, The Fifth Discipline, is an example of a management strategist favorably received by educational leaders. As described by Senge, the fifth discipline of the organization is to be a learning organization. Senge promotes the idea of team learning, "the process of aligning and developing the capacity of a team to create the results its members truly desire" (1994, p. 236).

Maslow's (1965) writing on eupsychian management emphasizes the significance of every member of the organization and the idea that what happens to one, happens to all. Maslow believes that each person possesses the impulse to achieve and the desire to contribute to the
benefit of the group. Maslow describes his ideal organization in which each person is a valued team member.

Another manifestation of the team concept is Total Quality Management (T.Q.M.). After World War II, Japanese industry made a remarkable recovery based largely on the ideas of an American management expert, William Edwards Deming. Deming went to Japan as a consultant, and introduced his management system known as Total Quality Management. T.Q.M. is founded on the concept of worker teams and on dedication to continuous improvement. In T.Q.M., each worker is vital to the success of what is accomplished. The input, effort, and personal responsibility of each worker is valued as an intrinsic part of the team. Revisions are generated from the bottom-up, based on the input of team members. The principles of T.Q.M. coincide with Japanese cultural values, such as harmony, honor, teamwork, and human relations. In describing Japanese management, Pascale and Athos (1981) state "the work group is the basic building block of Japanese organizations. Owing to the central importance of group efforts in their thinking, the Japanese are extremely sensitive to and concerned about group interactions and relationships" (p. 125).

Following the Japanese success with T.Q.M., American industry became interested, and Deming's ideas began to take hold in the United States. American companies such as Ford
Motor credited renewed success with the implementation of the worker team. Ford Motor Company created Team Taurus, an interdepartmental effort that resulted in its best-selling car (Schmoker, 1993). Within the past decade, T.Q.M. principles have extended to use in educational settings. Bonstingl (1992) introduces educators to the application of T.Q.M. in schools, and provides a guide to the process of implementation for the purpose of school improvement.

Bonstingl (1992) makes it clear that T.Q.M. is an entirely new way of thinking and living, and that as this philosophy is implemented it permeates and changes all aspects of a person's life. Bonstingl goes on to say it is like water to a fish, meaning it sustains, surrounds, and influences everything.

T.Q.M. encourages educators to create school environments in which strong relationships of mutual respect and trust replace fear, suspicion, and division; and in which leadership from administrators and policy-makers empowers students and teachers (as front-line workers of the school) to make continuous improvements in the work they do together (Bonstingl, 1992, p. 18).

Bonstingl (1992) points to the fact that many existing school practices do connect to T.Q.M., and can become the component parts to create a larger school change process. Bonstingl lists teacher teaming as one such practice. Others are site-based management, interdisciplinary courses, whole language, authentic assessment, mastery learning, and effective schools research. All of these innovations are supported through teamwork and teacher teams.
**Individualism and Cooperation**

Isolation and loneliness characterize the lives of many people today. The lives of teachers and children are no exception. The structure of schools and classrooms perpetuates a lonely, individualistic educational journey for both teachers and children. Glasser (1986) builds his theory for school improvement on the idea that traditional individualistic approaches to education fail to satisfy basic human needs. Glasser asserts individualism is the reason so many students are apathetic and unwilling to work hard. Intrinsic needs for belonging must first be satisfied for schools to succeed. Sergiovanni (1994) suggests that schools must change and become "meaningful communities into themselves" (p. 62). He proposes a new commitment to the values of human relatedness, and points to anthropological evidence that humans evolved as uniquely social creatures.

Human beings have a biological predisposition to share and to work together, a basic nature that is inherently social. Glasser (1986) contends that the basic genetic structure of human beings includes the need for love and belonging. This idea is consistent with the earlier work of Maslow (1965) whose motivational pyramid begins at the base with the satisfaction of safety needs. Upon fulfillment of safety needs, Maslow's pyramid moves upward one level to fulfillment of belonging needs. Glasser postulates that we are descendents of people who enhanced their survival by
nurturing and caring for each other. Cooperation, caring, and sharing gave early human beings a tremendous advantage over other species in the quest for survival.

According to Kohn (1992), "prehistoric people were remarkably cooperative, and may have distinguished themselves from other primates precisely by virtue of the extent of their cooperativeness" (p. 34). Sharing was a way of life for early humans beings, not just limited to the sharing of food but to all resources. Lewin (1984), an anthropologist, and Ornstein (1991), a research psychologist, concur that the development of the human brain's complexity was not for the purpose of basic food gathering or tool making, but for the purpose of providing the interactive skills needed for a cooperative lifestyle. The greatest challenge to early human beings was getting along with other members of the species. The purpose of human intellect is its social function. Learning requires community interaction.

Considering this predisposition for social connection, it is natural to reflect on the appropriateness of collaborative teaching and cooperative learning in schools. The idea of people working in partnership with one another is more attuned and rewarding to human nature, than working singly and alone. Schmoker (1993) contends the power of collective purpose and intelligence in school and in the workplace cannot be overlooked or underestimated. Wheatley
(1992) emphasizes the role of human relationships in organizations and believes connectedness leads to constant self-renewal.

In spite of the attractiveness of working together, people are often reluctant to join forces due to a cultural commitment to individualism (Westheimer & Kahne, 1993). The commitment to individualism is in opposition to the ideals of cooperation. In writing on school leadership, Patterson (1993) points out that schools "face the dilemma of designing management structures around team productivity or individual productivity. Either we organize to support individual performance or we organize to support a team concept" (p. 85). Patterson also addresses the issue of loss of the individual by saying that "tomorrow's leaders will do both, capitalizing on the team concept and recognizing the importance of individual contribution."

The creation of a team to accomplish a task utilizes the best of individual contributions to produce a workforce greater than the sum of the individual parts. Synergy produces a total effect that is greater than the sum of the individual effects. In schools, teacher teams provide a model for cooperation. According to Merenbloom (1996), the team model provides new dimensions to the learning process and a sense of family and community. Students become involved in the experience of their teachers sharing and working together. It is not possible to discuss or
participate in team teaching without cooperation. The relationship between the two is such that theorists such as Maeroff (1993) suggest that teaming by teachers provides an entirely new role model for students, one based on a spirit of cooperation and sharing, one that demonstrates and inspires cooperative learning patterns for children.

**Types of Teaching Teams**

Team teachers are two or more teachers who come together and share responsibility for a group of students. Because of the shared responsibility, regular shared times are needed for teams to plan. Planning time is essential to coordinated functioning, and is a necessity for true teaching teams. Many types of teaching teams exist: grade level, subject matter, pedagogy, interdiscipline, multipurpose.

**Grade level.** Teams consist of two or more teachers at the same grade level. Grade level teams frequently split the curriculum according to individual strengths. One teacher might teach science and math, while the other teaches language arts and reading. In both elementary and middle schools, full-time regular teachers can easily join together in grade level teams. The arrangement may be to trade students for certain portions of the day as a means for sharing curriculum responsibilities, or as a means to provide special activities and enrichment. Sergiovanni (1994) suggests that teachers trading students is an easy
entry into the realm of team teaching. Some grade level teams are job-shares, meaning that two teachers share one job position. Job-share teams may divide the job according to morning-afternoon, alternating days, alternating weeks, or alternating semesters.

Subject matter. Subject matter teams are appealing to high school teachers since the team is organized around the teachers' subject specialty. Subject matter teams work together for the purpose of collegiality and the improvement of student learning within the subject. The expertise and teaching strengths of individual teachers becomes a resource for the team. For example, an English team may work to develop student writing skills. In contrast to grade level teams, subject matter teams usually do not share a classroom or a group of students.

Pedagogy. Maeroff (1993) describes pedagogy teams as teams organized around a shared interest in some aspect of pedagogy, such as technology or alternative assessment. The purpose is to gain knowledge and increased expertise in the shared interest area, with implied awareness and enhancement for the larger staff. Sometimes this type of team is also known as a study group. For example, a technology team may work to develop the use of computers in multiple subject areas, and may provide expertise to guide other teachers.
**Interdiscipline.** Interdisciplinary teams are found most often in middle schools where a team of three to five teachers representing the core disciplines share the teaching of one group of students throughout the day. Glatthorn (1986) highly recommends this structure in middle schools. The student group is known as a house, and there may be many houses within the school. The house provides students better opportunities for building meaningful relationships with peers and with teachers. Interdisciplinary teams may select and teach on the basis of conceptual themes that cross all disciplines. A few examples of conceptual themes are aviation, oceans, migration, ecology. The theme becomes the basis for study in all disciplines for a week, month, semester, year. Team members need two scheduled prep times, one for the team to meet and one for individual preparation. Schmoker (1993) attests to the struggle to prioritize providing adequate team prep times.

**Multipurpose.** Multipurpose teams have roles that may overlap or exist as combinations of some of the above described teams. For example, a team might be organized both on the basis of grade level and pedagogy. Maerooff (1993) describes multipurpose teams as structured so that members of teams end up performing along more than a single dimension. New categories of teams and new team labels are
sure to emerge in the future, as teaming becomes a more popular and accepted mode of teaching and organizing.

Advantages of Teaming

Merenbloom (1996) provides a list of the advantages of teaming, explaining the ways in which teams help realize the goals of education. According to Merenbloom, teachers working in concert with each other have a greater potential for student mastery and retention of basic skills due to the positive reinforcement provided by more than one teacher in relationship to the student. Team decisions about classroom procedures builds consistency from teacher to teacher making for greater reinforcement and retention on the part of students. This consistency is a result of the team planning and solving problems as a unit. Teams can analyze and choose curricular models that best fit their students. Working together and utilizing collective thinking processes, teams can custom tailor curriculum to the student group.

Teams that work with block of time scheduling have tremendous flexibility in the utilization and division of that time. The team can alter the schedule in inventive creative ways that satisfy the needs of the team and enhance the delivery of the instructional program. Many teams function as a school within a school, particularly in middle school settings where this practice is highly recommended by leading middle school writers such as Clark & Clark (1994),
Epstein & MacIver (1990), and Glatthorn (1986). The smaller school or house provides stability and identity for young adolescents. School within a school teams have the opportunity to develop their own sense of vision and mission for their group, strengthening their philosophical base.

Identified as a keystone characteristic of the middle school movement, interdisciplinary teams of teachers share the same student group for a core of three to five subjects. In this organizational arrangement, teachers gain the benefit of a working group of colleagues who endeavor to solve mutual problems with the shared student group and who plan and coordinate studies and activities. Students gain continuity and a sense of belonging. Isolation is alleviated for both teachers and students. Team teaching meshes well with the middle school philosophical emphasis on small stable communities of learning. "As more schools have sought to emulate the middle school model, teacher teaming has grown" (Kruse & Louis, 1995, p. 4). Although highly recommended at the middle school level, interdisciplinary teams are only utilized in approximately forty percent of middle grade instructional settings (Clark & Clark, 1994; Epstein & MacIver, 1990). Considering that teaming presently touches the school lives of less than half of middle school students, the roll of teaming as a keystone practice requires further attention and development by middle school educators.
Teams offer the possibility of de-tracking students, as students are grouped and regrouped in cooperative learning experiences, and as they are rescheduled within the scope of team activities. This greater flexibility can help address the issue of de-tracking (Slavin, 1990). Teachers working in teams can begin to see and appreciate the relationship between philosophy, goals, planning, and what really happens in the classroom. Teams take ownership for the success of students, and may evaluate that success in a variety of ways. Just as sport teams constantly adjust their strategies, teaching teams adjust and retool to cultivate desired outcomes.

Teams require the regular scheduling of planning time, opportunities for the team to meet and work together (Maeroff, 1993). This planning time is in addition to individual personal planning time, and is essential to the effective team. Many middle school teams make use of a block schedule that allows the team a time to meet together daily. When core courses are grouped together in one large time block, common teachers gain common planning time (Wiles & Bondi, 1993). Districts and schools may have difficulty providing adequate opportunities timewise for team planning. Obviously, planning time is essential to a team's success. Principals are instrumental in securing planning time for teams (Epstein & MacIver, 1990; Glatthorn, 1986). The
additional time required to initiate and plan for team teaching is a possible disadvantage of teaming.

The development of teams is an ongoing process, the journey is continuous. Teams grow, develop, and mature with time and training. Senge (1990) points out that great teams did not start great, but learned to produce extraordinary results over time. As with any pedagogical innovation, staff development programs are essential to success. Team members learn to think and act as a unit, a transformative process that takes time. Team members must find ways to deal with conflict and to resolve disputes within the team. Unresolved conflicts and disputes will damage a team, and hinder its effectiveness. Rottier (1996) says:

Team feuding is often the result of lack of team focus, lack of appropriate ground rules for meetings, poor decision-making procedures, and little or no ability to manage conflict. All these issues must be addressed at the formation of the teams and at intervals throughout teaming (p. 22).

In-service programs on conflict resolution can provide training and practice in this area. According to Senge (1990): "In great teams conflict becomes productive. One of the most reliable indicators of a team that is continually learning is the visible conflict of ideas" (p. 249). Conflict resolution is part of the ongoing dialogue of the team.

Some of the greatest rewards of teaming are in the transformation of the workplace into a friendly entity. Teachers who team do not have to face things alone, there is
always another adult, there is friendship and comradery. The resource base is doubled, problems do not have to be faced alone. Successful team teachers find this attractive and satisfying to the basic human need for warmth, friendship, and nurturance, in addition to improved teaching. "Teachers working in teams are provided with a built-in support system, an adult with whom each can talk about teaching, learning, and students" (Sergiovanni, 1989, p. 231).

Potential for Change

The teaching profession is currently witnessing a shift from isolation and individualism to team and cooperative efforts. This is a paradigm shift of major proportions, one that will significantly change the structure of schooling. Wise and Leibbrand (1996) describes the evolving image of the teacher of the nineties as more collegial and cooperative. Roskos (1996) believes teacher preparation programs in colleges must include studies in cooperative teaching and opportunities to practice the skills involved. Welch (1998) concurs, teacher education programs must provide a foundation for collaborative and cooperative teaching structures. Wise and Leibbrand report on the current viewpoint of the National Council for Accreditation of Teacher Education (NCATE). NCATE sees the role of teacher as changing in the direction of collegiality, "characterized by sharing, working in teams, observing
peers, and studying with colleagues" (Wise & Leibbrand, 1996, p. 204). This new view emphasizes community and collaboration. In this model, teachers are continuous learners involved in continuous improvement of learning. NCATE's concept creates new standards to guide teacher preparation for the future.

Teaming and collegiality is the trend of the future (Patterson, 1993; Schmoker, 1997; Westheimer & Kahne, 1993). Leaders wonder how and in what ways will this trend gain acceptance and practice in the schools? How will teachers and administrators trained in the traditional ways of schooling make a shift in basic ways of thinking and doing? Will emerging teacher candidates with college training in collegiality gain employment and acceptance in schools run by traditional administrators?

Johnson and Johnson (1989) point out that cooperation is an old and simple idea. However, the reality of trying to implement this idea in a school setting may not be so simple. Johnson and Johnson advocate school leadership that works to build a cohesive and spirited team. The leader structures the organization so that staff members must interact and work together cooperatively. The more principals and teachers practice cooperative behaviors, the more natural it becomes to think and work cooperatively. The principal who views and treats staff as a working team has taken the first beginning steps in the process.
Significant school change requires beginnings both at the grassroots and at the top. Pascale (1990) describes change as flourishing in a "sandwich" with pressure both from the top and from the bottom. Real change requires the involvement and commitment of classroom teachers as well as principals and administrators. True change begins in human hearts and minds, and occurs with commitment to basic beliefs. New possibilities unfold as minds open to new and different approaches.

Summary

The literature indicates new interest in teacher teams, and presents teaming as a practice with potential for school change and for building a positive educational future. A recurring theme in school change models is that schools must work to build a sense of community. Manifestations of this theme are cooperative learning for students, and team teaching for teachers. A characteristic in the development of the middle school concept is the widespread use of interdisciplinary teaching teams as a means to meet both the academic and social needs of young adolescents. As an active and evolving portion of the educational arena, the successful use of teaching teams at the middle school level helps promote consideration of the strategy in both higher and lower grade levels of schooling.

Looking to management experts in the world of business and industry, educators find a new emphasis on the role of
work teams and teamwork. Senge, a management strategist, presents the idea of work teams achieving continuous learning, and creating a learning organization. Total Quality Management (T.Q.M.), a system based on worker teams and continuous improvement, proved so successful in the revitalization of Japanese industry that it is now embraced by American industry as well. Bonstingl, an educator, provides a bridge between industry and education, applying the ideas of T.Q.M. to school improvement. Teaming is an example of a school practice that connects to the premises of T.Q.M., and that can serve as a component in the school change process.

Teaching teams fulfill educational goals and offer many advantages in school settings. Teachers working together as team partners provide better instruction and classroom management. Teachers working in concert have a greater potential for student mastery and retention. Through collective thinking processes, teams can custom tailor curriculum to the student group. For teachers, teaming provides a built-in support system with another adult, and helps transform the workplace into a more friendly entity.

The teaching profession is currently in the process of shifting from an emphasis on isolation and individualism to team and cooperative efforts. Team teaching for teachers and cooperative learning for students are manifestations of this change. The movement toward cooperative ventures
represents a paradigm shift of major proportions, and one that is changing the structure of schooling and the nature of teaching.

The literature clearly indicates the value of teaming in the improvement and future direction of schooling. Teaming is atuned to basic human values, and to the spirit of cooperation. Teaming is consistent with life itself, and parallels what is required of people in the real world. The goal of this study is to generate new insights into why teachers form teams and what facilitates the continuation of teams. The next chapter presents a research design for the study of teaching teams in elementary education.
CHAPTER 3

METHODOLOGY

Team teaching is an organizational strategy with promise for the future of educational practice. Teaming is an old strategy, used and reused throughout educational history. The basic idea is simple and straightforward: two or more adults working and planning together, sharing responsibilities, sharing resources, sharing results (Johnson & Johnson, 1989). For this study, a teaching team is defined as two or more teachers who share responsibility for the same group of students, and who have shared planning time for the purpose of coordination. School reform models recommend more teaming for the improvement of schools (Gibboney, 1994; Sheeran, 1996). Working partnerships fulfill basic human social needs and enhance educational processes. Team teaching is a model for cooperative behavior and sets the stage for cooperative learning and school as community ventures (Glasser, 1986; Sergiovanni, 1994).

Given the current and expanding interest in teaming, teachers and administrators need more information on this strategy, and a larger knowledge base from which to make organizational decisions. The search for literature indicated a scarcity of available information on teaming. The need for development of more information prompted this research study. As a result of the investigation presented...
in this chapter, teachers and administrators will have more awareness and information to guide team teaching efforts. In designing the research questions, the emphasis was on those areas where the existing literature was incomplete.

Research Questions

The following research questions guided this study:

1. What leads teachers to form collaborative teams?
2. What facilitates and makes teaming operational?
3. How does teaming improve teaching?
4. How does teaming improve learning?
5. How do educational leaders initiate and support teams?

Method

The qualitative paradigm provided the framework for the overall design of the study. As described by Creswell (1994):

In qualitative studies the research problem needs to be explored because little information exists on the topic. The variables are largely unknown, and the researcher wants to focus on the context that may shape the understanding of the phenomenon being studied (p. 10).

The paucity of available information about team teaching combined with many unknowns about teams in schools made the qualitative framework ideally suited to this study. Qualitative design provided opportunity for the researcher as instrument and for an open-ended and in-depth process with the natural setting and people's experience as the source of data. Qualitative methodology utilizes human
interaction to seek truth and inductive thinking to develop theory. Lincoln and Guba (1985) describe the pursuit of truth qualitatively as something to be discovered in the analysis of human interaction. Since teaming is an interactive process, the use of interactive methodology was an appropriate choice.

Procedures of the Study

Data Collection

Upon approval of the Institutional Review Board, the study commenced with data generated by research on teachers, principals, and schools involved in teaming. Data collection techniques included semi-structured interviews, observation, and document analysis.

Semi-structured interviews

Semi-structured interviews provided the opportunity for an interactive process between the inquirer and the data sources. Qualitative studies use interviewing as a basic tool for face-to-face interactive data collection. In writing on qualitative research, Bogdan and Biklen (1992) describe the interview as a purposeful conversation between two people, directed by one in order to get information from the other. In this study, the interview was the primary strategy for data collection. The purpose was to gather descriptive data in the subject's own words, and from the subject's own point of view.
Semi-structured interviewing followed a list of pre-established guide questions, with the possibility to pursue some areas through probe questions. Probe questions pursued more deeply the topics and issues initiated by the respondent in the process of the interview. The use of pilot interviews with team teachers and a principal provided feedback that helped in the refinement of the protocols. The protocol used for team teacher interviews is in Appendix A. The protocol used for principal interviews is in Appendix B. The reason for a written framework of questions was to provide "comparable data across subjects" (Bogdan & Biklen, 1992, p. 97). All subjects were asked the same basic list of questions, with variation occurring in the use of probe questions. Examples of probe questions were requests for amplification, clarification, and verification. Probe questions were used as needed to obtain more complete information.

**Observation**

Observation is a technique for recording by means of field notes what is heard, seen, experienced in a setting. According to Lancy (1993), this technique originated in sociological studies as a means for studying processes of human interaction. Observation was used to observe team planning time, for the purpose of analyzing the working interaction of team members. I made notations according to conversational categories, for example: small talk, social,
parents, students, curricular. I was alert to the team's approach to problem solving and to resolving issues. I was looking to see if observational data was consistent with interview data, and if similar themes emerged.

In describing qualitative research designs, Eisner (1991) suggests the use of a theory or framework to provide a lens through which to interpret what is viewed and described. The lens becomes "part of the investigator's cognitive map, and it steers the course of observation" (p. 186). In my research study I used the lens as offered by Gibboney (1994) in evaluating the efficacy of school reform plans. Gibboney states that "fundamental reform is reform that is intellectual and democratic" (p. 17). This criteria which has historic roots in the philosophy of John Dewey, is also expressed in the works of contemporaries such as Sergiovanni (1994), Senge (1990), and Glasser (1986).

Observation was also used to watch each interviewed teacher at work in the classroom. As noted by Eisner (1991), "the richest vein of information is struck through direct observation of school and classroom life" (p. 182). In classroom observation "what teachers and pupils actually say and do becomes the major focus of attention" (Hitchcock & Hughes, 1989, p. 133). The classroom observation provided the opportunity to see teachers and students in action, and to check on the degree to which the realities of the classroom matched interview and planning time data. Using
the same lens as stated previously, I was alert to the quality and form of student and teacher engagement and the degree to which democratic and intellectual intentions were fulfilled.

Document analysis

Document analysis is a technique for studying the content of written artifacts such as official school written policy statements. According to Strauss and Corbin (1990), document analysis can provide important sources of qualitative data, supplementing the more usual interviews and observations. By studying documents, much can be learned about an organization, its structure and how it functions. In this study, document analysis was used to search for references to teamwork, collaboration, and cooperation in school mission, philosophy, and goal statement materials.

Sample

Teachers and principals selected for the study were actively involved in and part of a teaching team during the 1997-1998 school year. A teaching team was defined for this study as two or more teachers who shared responsibility for the same group of students, and who had shared planning time for the purpose of coordination. Both parts of this definition—shared responsibility for same student group and shared planning time—had to be fulfilled in order for a team to be included in the study. Participants were
credentialed teachers with current employment by public school districts in Montana, Idaho, or Washington. All of the teachers who constituted a given team were studied, as well as their supervising principal. Grade levels represented were not lower than grade one, and not higher than grade six. The reason for these grade level boundaries was to set manageable limits to the study and to focus on the elementary setting.

Selection of participants was through a process of purposeful sampling as described by Patton (1980) and by Bogdan and Biklen (1992). Purposeful sampling involves selecting participants because they are believed to offer something to the expansion of the developing theory on team teaching. I chose particular subjects because they offered richness in information regarding the topic of teaming through their participation in teacher teams. Purposeful sampling is deliberate and is a non-random process. Individuals were selected because of personal and professional attributes that lend to richness of response. As advised by Whyte (1984), "the best informants are those who have observed significant events and who are perceptive and reflective about them" (p. 105).

The study began with a plan for research of teaching teams in Graycliff MT, Mountain Meadow School; Badger Point MT, Badger Point Elementary; Jerome MT, Jerome Elementary; Judson Valley ID, Judson School; Cranehill ID, Madison
Elementary. Through inquiries and networking, I expanded this list to a total of ten teams. Snowball sampling is the process by which participants recommend other study participants. Snowball sampling led to completion of the team selection process. The total number of team teachers in the study was 21, the total number of principals was 10, the total number of school sites was 10.

Team Teaching Sites

The ten team sites studied were located in Montana, Washington, and Idaho. Following is a list of the sites and a description of each. In order to assure anonymity, I assigned pseudonyms for all place names and persons. These same pseudonyms are used in all references throughout the text.

Mountain Meadow School serves grades PK-4 in Graycliff, Montana. The District has a total enrollment of 1767, with 389 at Mountain Meadow. Graycliff's location in a scenic glacial valley draws tourists and retirees who enjoy the unrushed small town atmosphere. People are friendly and greet you with "Howdy."

Lynn Logano and Patsy Meyer are second grade job-share teachers. The two teachers share one fulltime teaching job, each taking responsibility for one half. Both are young mothers with children at home. This is Patsy's sixth year job-sharing, Lynn has been her partner for two years. Julia
Neilson has been the principal at Mountain Meadow for 10 years.

**Badger Point School** serves grades PK-6 in Badger Point, Montana. Total enrollment in the district is 962, with 421 at Badger Point School. Badger Point is a scenic destination with a rustic downtown lineup of art galleries and specialty shops. Marne Fulton is an art specialist teacher for all grades who regularly teams with classroom teachers for large scale cross-curricular projects. Marne teams with fourth grade teacher Sharee Shunaro for the opera project, a school activity that began eight years ago. Principal Barb Halvari came to Badger Point from Granite Lake 6 years ago.

**Jerome Elementary** serves grades PK-4 in Jerome, Montana. Total enrollment in the district is 1286, with 450 at Jerome Elementary. Jerome is located in the heart of a lush ranching and agricultural valley, now attracting retirees and commuters. The town itself is small with a large outlying rural area. Population growth has filled the elementary school to overflowing. An addition is under construction. Teachers Kareena Galven and Michelle Winslowe team teach a multi-age classroom of first and second graders, sharing the space of a single classroom. This is the team's first year. Principal Lorna Doherty is a new first year principal at the school, coming from Porter, Montana.
Arlo Elementary serves grades K-6 in Arlo, Montana. The district includes 552 students in grades K-8. Arlo is a small town with a rapidly growing population. School people cannot explain this growth except to guess that it is probably as a bedroom community to nearby Cloverdale. Because of the growth, the old school in neighboring Melino was demolished and a new one is under construction. During the construction all students attend Arlo which has created a severe space problem, and resulted in matching teachers as teams. Colleen Harrington and Maria Fuentes teach a multi-age classroom of first and second graders, sharing a single classroom space. Principal Bobbie Jo Matthews has been principal for 3 years, having come from Graycliff where she was Patsy Meyer's original job-share partner at Mountain Meadow School.

Spruce Elementary is an urban K-6 school in Cramerton, Washington. The district serves the western part of the metropolitan area and has a total of 10,332 students. Spruce serves 325 students in an established neighborhood. Teachers Rick George and Sandy Beckett team teach the entire sixth grade. This is Rick and Sandy's eighth year teaming, but their first year at Spruce. Principal Sarah Cole hired them as a team to fill two new vacancies at the sixth grade level, the result of the district moving sixth grade students back into the elementary setting. The two classrooms are side by side and have a connecting door.
**Judson School** is a K-5 school in semi-rural Judson Valley, Idaho. It is part of a large district that includes the city of Fall River and extends for miles in all directions. Judson serves 361 students K-5. An old logging area, the community is picturesque and parklike, holding a stable population of non-loggers and commuters. Teachers Phil Jacoby, Bob Greunvald, and Katie Ford teach the entire fifth grade as a new three member team. All three are full-time, and their students rotate among three classrooms. Phil and Bob formed the original two member team eight years ago. This year's fifth grade student group is so large that Katie joined to make it a three member team. Hope Andreson has been principal for 6 years.

**Madison Elementary** is a K-6 school in Cranehill, Idaho, serving 390 students. It is part of the Cranehill District that serves a large rural area. Six years ago Principal Bruce Rawlins hand selected his staff with the purpose of creating what Bruce calls "a total cooperative collaborative school" at Madison, an old primary school site that was reorganized to include students through grade 6. This year, fulltime teachers Cathy Donato and Joyce Peterson team teach a new multi-age class of grade 5 and grade 6 students. The large combined student group occupies two side by side classrooms connected by a moveable accordian wall. In order to provide parents with a choice, students of these grades
are also taught in a traditional grade 5 class, and a traditional grade 6 class.

**Caniya School** is located in the small logging town of Caniya, Montana. The school district serves a total of 227 students, with 109 in grades K-6. Dr. Stan Morris is principal for grades K-12. Teachers Glenda Cordero, 4th grade, and Cami Oberon, 3rd grade, team together, and have been doing so for 5 years. Both teachers are full-time and occupy classrooms across the hall from each other. The number of students at each grade level is fifteen or less. Tucked into the base of tall mountains, the setting is isolated and hidden by dense stands of surrounding trees. The building rambles to include connecting sections of all grade levels, but the K-6 part is an architecturally attractive and spacious new addition.

**Woodville Elementary** serves grades PK-6 with 555 students in Woodville, Montana. The 6th grade team of Meg Stone and Carol McCoy has been in operation for 9 years. Meg and Carol are both full-time and their classrooms are conveniently located across the hall from each other. Two other 6th grade classes share the same hallway. Dr. Sharon Drake has been principal for 4 years. Woodville is an old community in a large open valley consisting of farms and ranches. The area has grown in recent decades as people have moved beyond the outer edges of Oreska, from which it
is an easy commute. Woodville's largest industrial employer is a mill.

Longfellow School is part of the Oreska District serving a total of 9,736 students. Longfellow is located in the city's urban core and has a student population of 248 in grades K-5. Teachers Joy Ivers and Alberta Kinster began their job-share team 13 years ago. As a job-share, they divide one full-time position into two halves. This year they are teaching a small combination third and fourth grade class. Don Baker is the principal. Oreska, Montana, is in a spacious valley surrounded by snow-capped mountains and wilderness.

The total number of subjects in the study was 31. Each team included at least two teachers and one supervising principal. A summary of team places and names is found in Appendix E. Selected study participants were contacted by an introductory letter. A copy of the letter is in Appendix C. The letter introduced the researcher, explained the nature of the study, requested participation for an interview, and indicated that a follow-up telephone call would be made for the purpose of answering questions and for scheduling an interview. The follow-up telephone call also scheduled the team observation. As team teachers were scheduled, the principal was contacted by telephone and an interview arranged. The principal was asked about the availability of documents, and documents were requested.
The principal was also asked about the availability of current assessment results for the purpose of evaluating the comparative achievement levels of team taught and non-team taught students. These achievement results were requested. All subjects were assured confidentiality and anonymity.

Each individual interview lasted approximately one hour, and follow-up interviews were scheduled as needed for completion of the research process. Telephone calls were used to verify or expand items from the interview, if fragments or loose ends appeared in the transcript. All interviews were conducted between September 1997 and March 1998.

Interviews were tape-recorded and later transcribed. Tape recording the interview allowed me to focus attention on the person and the process of the question sequence. Field notes were used to record other observations during the interview, such as body language, setting, and atmosphere.

The list of interview questions, while structured for all interviews, was intended to be open ended. Probe questions were interjected as needed for the purpose of clarification. The protocols are in Appendix A and Appendix B.

Immediately following the interview I reviewed the interview, clarified data, amplified field notes, and evaluated the process. As recommended by Patton (1980),
this process assures that the data obtained are useful, reliable, and valid. Feldman (1981) stresses the importance of spending approximately one hour after each interview, clarifying and amplifying field notes, so that nothing is missed. I completed the transcription of the interview within two weeks following the interview.

Data analysis

The constant comparative method as described by Strauss and Corbin (1990), was used to analyze the data collected in this study. The constant comparative method operates on the principle of constant comparison and contrast amongst the data collected. According to Strauss and Corbin, the first basic analytical step involves the naming and categorizing of phenomena through close examination of data. During the coding process, "the data are broken down into discrete parts, closely examined, compared for similarities and differences, and questions are asked about the phenomena as reflected in the data" (p. 62).

Interview transcripts were labeled by use of coding that described content, section by section. Every part of the interviewees' response was labeled by the coding. These coding labels were then condensed into categories. Similar categories were summarily joined into themes. I looked for patterns and themes that emerged from the data, rather than searching for pre-established themes. As findings were synthesized, answers to the research questions were
provided, and theory emerged. To recap the steps of this process, coding began with labels, labels condensed into categories, categories joined into themes, themes led to emergent theory. I used the same constant comparative method as described above to analyze data from the planning time observation session and classroom observation sessions, as well as in the analysis of documents.

The following describes fully the seven steps I used in the content analysis of the interview data:

Step 1, Transcription. I transcribed 31 tape recorded interviews from 10 team sites word for word, producing 204 pages of interview transcription text.

Step 2, Reading. I read all pages of interview transcription text. As I read the text from each team site, I simultaneously read observation notes and documents from the site. In the process I gained an overview of the collected data for each location.

Step 3, Initial codes. I reread all pages and identified codes for the purpose of initial data classification. Penciling these codes in the left margin, I wrote codes, erased codes, revised codes, changed codes, until a total of 52 codes remained. These initial codes were as follows:

- Active learning
- Advice
- Assessment
- Benefit to school district
- Benefit to student
- Class management
Community of learners
Concentrating on fewer areas (divide and conquer)
Connection to community
Consistency
Cooperative model
Curricular themes
Decisions
Description of team
Discipline
Employee benefits and salary
End or failure of team
Friendship companionship
Future
Heightened professionalism
History of team
Influence of principal
Influences toward teaming
Job satisfaction
Less dropping through the cracks
Less stress
Meeting variety of needs
Money concerns costs
Multiple teaching approaches
Need for support from all stakeholders
New ideas and inputs
Non-competition
Other teams in building
Parent participation
Planning time and strategies
Principal's attitude and role
Reason for team
Research
School climate
School district attitude
School district philosophy
School mission and vision
Schoolwide themes
Sharing - partnership
Similarities dissimilarities - match
Specialists
Staff attitudes and relationship
Staff meetings
Support from team member
Teacher strengths and style
Two heads better than one
Visitors

Step 4, Categories. I wrote each initial code on an index card. I read, sorted, and stacked the cards into similar groups. As I worked at grouping and regrouping the
cards, 14 category groups emerged. I used these 14 categories to label all interview segments. I used the same 14 categories to label my observation notes and to label documents. The 14 categories are as follows:

Historic. This category contained data that was historic in nature, the past, present, and future of the team. Looking at the past, what motivated the formation of the team; how did it begin? In terms of the present, how was the basic structure of the team described? In reference to the future, what influenced the continuing existence of the team?

Principal. This category covered the role of the principal as a player on the team. How did the principal encourage and facilitate the operation of the team? What was the attitude of the principal toward the team? What special arrangements such as common planning time did the principal utilize to help make it possible for teachers to work together? What was the principal's vision for the school and how did it connect to teaming? What leadership did the principal provide for teaming?

Influence on teacher. This category covered ways in which teaming influenced the day-to-day worklife of the teacher. Did teachers experience an increased sense of human support as a team member? Was the workload divided and shared among the team members? Did teachers talk of improved teaching quality and heightened professionalism?
Did team members report job satisfaction, happiness, less stress, and the enjoyment of work?

Influence on students. This category included all the ways teaming influences students. How was the life of a student different because of team teaching? Did students benefit by working with more than one teacher? Did team teachers use multiple approaches and teaching styles to meet a variety of student needs? Did teachers believe that fewer students drop through the cracks? Did teaming promote more active learning and more projects? Did students appear engaged, involved, and on task? What did teachers and principals say about assessment and monitoring student progress?

Planning and coordinating. This category covered the functions of planning and coordinating. Where, when, and how did team members get together to plan? What strategies did the team use to facilitate the planning process? How were decisions made?

Team/Style. This category defined the team's working style in greater depth than category one's basic historic description. Team/Style described the dynamics of the relationship of the partners, and the personalities, strengths, weaknesses of each. Included were attributes of the team such as match and compatibility. How did the team work together for consistency in the classroom? What
systems of classroom management and student discipline were in use?

Staff. This category included data describing the relationship between the team and the larger school staff. What was the attitude of the staff toward the team? In what ways did the team influence the staff?

Parents. This category dealt with the relationship between the team and parents. What was the attitude of parents, and how did parents view the team? How did the team handle communication with parents?

Two heads are better than one. This category centered on the idea that two heads are better than one. This idea was expressed so often that it warranted its own separate category. Did team members talk about two adults, two brains, two heads, two sources? Did teachers describe the process and pleasure of working in partnership with another human?

School district. This category included data pertaining to the school district, the school board, and the superintendent. Did the philosophy of the school district connect to teaming?

Economics. This category included all references to economic and monetary concerns.

Advice. This category contained the advice that team teachers and principals gave to others. What were the
recommendations? What did team teachers believe is the future for teaming?

Professional growth and development. This category covered all the variety of ways team teachers were working toward continued professional growth. Did teachers and principals express an openness to learning? Was there interest in new ideas, new inputs, new models?

Extraneous. This category was for items that did not fit elsewhere.

Step 5, Cutting and sorting. I used scissors to cut above and below each relabeled interview segment. As I cut apart all 204 pages of interview transcription text, I sorted the segments into piles according to identified category. As I completed this task, I had 14 category piles. I did the same cutting and sorting of observation notes and of documents, with the resulting segments added to the 14 category piles.

Step 6, Larger themes. I analyzed the 14 category piles, seeking to find repeated ideas and connections. I looked for natural clusters to form a few larger themes. The emerging themes were as follows: Team, Students, Support, Culture. Team encompassed these categories: Historic, Influence on Teacher, Planning and Coordinating, Team/Style, Two. Students became the theme name for two categories: Benefit to Students, Parents. Support included these categories: Principal, Staff, School District,
Economics. Culture included two categories: Professional Growth and Development, and Advice. One category was not included in the new themes: Extraneous. Segments found in this category were restudied for classification into the new larger themes.

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<th>THEMES</th>
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The following is a summary of the four themes:

Team. This theme encompasses all data that pertains to the team itself as a distinct organizational entity. Team describes the basic structure of the team, how it is organized and how it functions. How does the team operate day to day, and what makes it different from the way regular classroom teachers do their jobs? How does the team share and divide the workload? How and when does the team communicate, consider and make decisions? How does belonging to the team affect job satisfaction? How does team membership affect level of professionalism as experienced by the teachers? What do team teachers say
about embodying a cooperative model, and about the role of noncompetition? Historically, what is the background of the team? When, why, and how did it begin? What were the factors that influenced the decision to form a team? How were team members selected and matched? What is the probable future of the team?

Students. This theme focuses on students and embraces all the ways teaming affects students and their parents. How do students benefit from team teaching? Is student learning enhanced? What do school assessment instruments reveal about student achievement? From the perspective of opportunities to learn and to grow, how does teaming make a difference? Is having more than one teacher beneficial to students? How do parents view team-taught classrooms?

Support. This theme includes the ways in which aid and assistance are provided to the team. Support is generally given by the principal, by the staff, and by the school district. What is the principal's view of teaming and its place in the school? How do staff members view the team? Does the philosophy of the school district support teaming? In what ways does the district influence the existence and continuance of teams?

Culture. This theme is about teachers as continuing learners. Does the team model foster learning for teachers? Is there openness to new ideas and possibilities? Do in-service workshops and staff development events connect to
teaming? What advice do team teachers give to others who are considering teaming?

Step 7, Analysis. I analyzed data within each of the four major themes described above: Team, Students, Support, Culture.

Examination of the data led to condensation of 13 categories into 10 categories with 4 larger themes remaining. The final delineation of categories and themes is as follows:

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<td>STUDENTS</td>
<td>Benefit to Students Parents</td>
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<td>SUPPORT</td>
<td>Principal Staff School District</td>
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<tr>
<td>CULTURE</td>
<td>Professional Growth &amp; Development Advice</td>
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Analysis of current assessment results was based on the reported assessment results provided by the principal at each school. Each principal was requested to provide the most current assessment results as they pertained to team taught groups. The format was as provided by the principal and based on the assessment instrument in use at the school. The plan of the study was to compare student achievement based on scores from team taught versus non-team taught students during the same year, or based on scores from the
same student group two different years when one year is team taught and one is non-team taught. The assessment results at each school were summarized in terms of the locally provided format. The results were used to answer the research question pertaining to the improvement of student learning.

Validity

A major issue in educational research is trustworthiness, rigor, and validity. Trustworthiness asks if the study is believable, dependable, and doing what it states it is doing. Lincoln and Guba (1985) provide a view of trustworthiness for qualitative paradigms, and present four parameters that address rigor: Internal Validity, External Validity, Reliability, Objectivity. I discuss each of these parameters.

Internal Validity asks if there is truth value in the findings of the inquiry. Geertz (1973) recommended the use of thick description to assure internal validity in qualitative studies. I have used ample words and phrases from the participants to provide thick description of the phenomenon in the study. Jick (1979) advocated triangulation as a means for improving the internal validity of findings and interpretations. I utilized triangulation by means of three data sources: interviews, observations, documents. Each data source provided reinforcement for the
findings of the other sources. Lancy (1993) described this as creating a tightly woven net.

External validity asks if the findings have applicability in other contexts or with other subjects. In qualitative studies, it is often said that this matter is for the reader to judge and to decide. Fielding (1986) pointed out that the external validity of qualitative studies depends on underlying similarities between field settings and other settings. Fielding warns against generalizing away from similar field settings to very different settings. Through the use of thick description, readers can make connections between sites in the study and other settings.

Reliability asks if the findings would be repeated by a replicated study. Reliability was insured by a reasonably sized and representative sample. In writing on interviewing, Douglas (1985) dealt with the issue of number of subjects in a qualitative study. He recommended twenty-five cases as the number needed to exhaust the possibility of new truths. The number of interviews in the study is thirty-one. Sites in the study were selected with attention to size, types of teams, and geographical location in the northwest.

Objectivity addresses the issue of neutrality. Is the study carried out in a researcher-neutral way? Is the study fair, non-judgmental, and without bias? In this study, I
committed to being continuously self-aware and attentive to the preservation of neutrality.

Lincoln and Guba (1985) suggest seven activities to insure rigor: Triangulation, Prolonged Engagement, Member Checks, Peer Debrief, Literature Checks, Negative Case, Audit Trail.

Triangulation is a term derived from nautical and military applications. The idea is that the exact location of an object can be best determined by looking and sighting from more than one viewpoint. Jick (1979) proposes that triangulation assures congruence, meaning that the analysis of the data becomes more acutely accurate. Triangulation also may lead to a complementary relationship in which findings complement each other's existence. For the purpose of data triangulation, in this study a multiple techniques approach within the qualitative method was utilized. In addition to the semi-structured interviews, team observations were conducted, and school mission statements analyzed. The purpose of observing the team was to see if comparable data was produced, data that was congruent with that produced by the interviews. The purpose of analyzing school mission statements was to see if the documents provided a philosophical base for teaming.

Prolonged engagement refers to the time span of the study. The longer the period of time, the greater the
likelihood of rigor. The time span of this study has been September, 1997 to March, 1998.

Member checks is the process of checking back with subjects to verify the accuracy of transcriptions and records. I used both the telephone and follow-up interviews for the purpose of verification, and for the purpose of checking the fit and rightness of emerging elements. For example, by telephone or in person I asked, "Is this what you meant?" or "Would you explain this point more fully?"

Peer debriefing is the activity by which the research is checked out with a peer. I used this strategy as a means to gain new insights into my study. A peer provided opportunity for candidness. I asked a peer to read, comment, and discuss the themes from the data and the developing paper.

A literature check is the process of checking back into the literature for the purpose of continued investigation, verification, and study. This is a constant and continuing activity, and one that rewards the rigor of the study. In the development of grounded theory, literature checks are essential, as it assists in fine tuning the emerging theory. As this study unfolded, I continued to read and check back into the literature for application and confirmation.

Negative case requires that the researcher look for disconfirming data, which will require revision of a hypothesis. Negative Case is a means of arriving at the
truth. According to Douglas (1985), finding "instances in opposition to what you have previously found, provides a built-in self-correction program" (p. 51). Douglas further states that "negative instances are new truths and are like gold to the rabid gold digger" (p. 51). In this study I used negative cases for adjusting and honing the emerging theory.

Audit trail is the means by which another researcher could go back through the transcriptions and records of the study and determine the pathway of the results. In this study, I have organized my notes, tapes, papers, and tools, in such a way to provide for an audit trail.

Strengths and Weaknesses

The major strength of the study is looking at the team as a model of organizational structuring for the future. School change models recommend teaming, and successful examples of the transformation of institutions by means of work teams can be found in the stories of schools as well as in industries. Teaming is a trend of the future. This study is significant to the future practice of teaming.

Another strength of the study is the focus on human relationships and connectedness. The anthropological idea that humans are by basic nature more predisposed to cooperation and collaboration with other humans suggests the need for analysis of how humans work together in schools. Teaming by teachers is a positive role model of teaming and
cooperation for students. Because of the emphasis on human values, the study appears well suited to qualitative methodology with the researcher as tool.

A final strength of the study is investigating a limited number of teams in Montana, Idaho, and Washington. The advantage is the thoroughness of a concentrated in-depth study.

Weaknesses of the study are the small number of participants, and the limited geographic area. These limitations prevent broader generalizability of the findings. However, the stated weaknesses are offset by the advantage of a concentrated in-depth study, appropriate to the emerging nature of the topic.

In consideration of the discussed strengths and weaknesses, and in light of the need for expanding the knowledge base on teacher teaming, I pursued this study using the described qualitative methodology. Chapter 4 reports the results of this inquiry.
CHAPTER 4

RESULTS

Things turn out better when we work together.

Sign beneath classroom clock, Mountain View School

The sentiment expressed in this sign is illustrative of many of the themes that emerged in the data. The sign proclaims that people working together produce better outcomes than people working singly or alone. Implied is the meaning that the work process itself is improved as people join forces and work together. Both product and process improve as people work together.

Chapter Four is based on the data analysis and yields four emergent themes: Team, Students, Support, Culture. The teaching team is the heart of the study, the central core encircled by the other three themes. The centrality of Team reflects the basic focus of the study on teachers working together in teams. The second theme, Students, represents both the object and reason for the team's existence. Teaching teams exist for the purpose of serving and connecting to students. The third theme, Support, consists of facilitating elements in the school setting that help sustain the teaching team. The fourth theme, Culture, refers to development of learning as interpreted and
embodied by the team. All four themes are connected and interdependent. None can stand alone without the others. "Two heads are better than one"

The theme, Team, opens this chapter with data on the team itself. Included are three subsections: historic, influence on teacher, style. Historic describes the beginnings of the team, the present, and the probable future. Influence on teacher consists of how teaming makes a difference in the worklife of a teacher, how it improves teaching and leads to job satisfaction. Style reveals the dynamics of a functioning team relationship.

Historic

Each team in this study began with the idea that people do better working together. Need, necessity, desire, all helped shape the idea. In most schools, teachers acted on the idea voluntarily, experimented with small joint ventures, and gradually came to the realization that their alignment formed a team. The individuals involved knew each other and made the decision between themselves. As a teacher said, "It was real natural, that's how it started."

Carol was one of many team teachers who spoke of circumstances leading to the beginning of the team:

The idea came naturally. Our personalities were so much the same, we got along so well that it was just an automatic thing to get together and say, 'this is what I'd like to try for social studies, what do you think?' Our personalities really click, that's why we team together.
Sandy, a teacher from another team, had this to say about the inception of her team:

It's always been my nature to want to share ideas and to share things. When I met Rick George, who was a new teacher in our building, he was real open to doing that, it was real natural, that's how it started.

The sixth grade team of Sandy Beckett and Rick George has survived and strengthened through several building assignment changes. Now in their eighth year, they are again in a new location at Spruce Elementary where Sarah Cole, the principal, hired them "as a package deal."

Principal Cole shared: "We needed two sixth grade teachers. These two wanted to stay together, and we ended up with the sixth grade team. I think it's a great deal. They're very capable people."

Rick described the influence of a "push from the district" for teachers to work together seven or eight years ago. "District administrators were pushing the idea that teachers needed to start partnering, teaming." That trickled down to the building where, according to Rick, the principal said, "Let's put something together, each grade level try to start working together." Rick added, "It was left up to the teachers to try it out, a lot of teachers backed away from it." Sandy believes, "Teachers are very reluctant to team. They either have different styles or they like their own kids."

The teachers in the study repeatedly talked about the creation of the team as a natural consequence of working
collaboratively. Sharing ideas and resources with a compatible co-worker created a connection that grew and strengthened into the team.

Michelle, a new team teacher said, "I felt confident that it would work out okay because I had worked with Kareena and been in her classroom a lot as a Title I teacher." Colleen, another new team teacher said: "I think teaching side-by-side in the past made our team easier. We had a door that adjoined our classrooms." Carol, Sandy, Rick, Michelle, Kareena, Colleen—all are full-time teachers who have joined together with another full-time teacher to create a teaching team.

Job-sharing is a branch of teaming in which two teachers share one job position, literally dividing the job into two halves. Job-sharing teams spring from the personal needs of teachers who desire to reduce the hours of work per week. Of the four job-sharing teachers interviewed, three began the job-share team at a time when their own children were young and at home. Lynn Logano reflected on how she and Patsy, her partner, found their team:

We both have small children. So it worked really well for both of us. Part of me wanted to stay home with the kids and the other part really wanted to teach, so this is the perfect happy medium. I can do both.

Lynn's principal, Julia Neilson, spoke of her strong personal belief in schools "supporting families more." Julia said, "Job-sharing is a way we can be supportive to mothers and to working mothers." Julia thinks "teachers who
are the mothers of young children should have the opportunity to spend time at home as well as continuing their professional life." Julia sees job-sharing teachers as setting an example, a role model for young mothers who wish to continue working.

While three job-sharing teachers were motivated by the desire to spend part of the day at home with their young children, the fourth, Alberta Kinster, was facing a health problem that meant she would either have to quit working or reduce her hours. Alberta felt that the job-share offered her the best balance of her time and energy, and helped her regain her health. Now, thirteen years later, she is still part of the oldest continuing team in this study. Joy Ivers, her partner, reflected, "We got together, she needed to go part-time for her reasons and I needed to go part-time for my reasons, and so we found each other." Alberta and Joy's job-share team was the second of its kind in the school district, following the first by only a year.

Many of the teachers in the study were pioneers and were challenged to make arrangements for their team situations. In essence, team teachers wanting to step out of traditional roles as a single teacher had to play a role in shaping policy to guide the arrangements. Administrators were willing, but it was the teachers that had to shape and create the logistics of the team situation.
The first job-share team participants were required "to do a lot of research, to visit a lot of schools, to find a lot of articles" as they created an acceptable plan with the school district. One original member of that first job-share team is still job-sharing in Oreska, Montana. Seven years ago in Graycliff, Montana, Patsy Meyer's request to go from full-time to a job-share was prompted by being pregnant with her second child. Encouraged by her principal, Julia Nielson, she brought her proposal to the superintendent who established a ten member study committee formed of teachers, administrators, and parents for the purpose of developing a job-sharing policy. As Patsy described it, "I did a lot of research on schools, went and observed a lot of schools with team teaching and job-sharing going on." It was a long three year process until the school board gave its approval. Two and a half years after her baby was born, Patsy was finally sharing her teaching job and working half days. As her principal explained:

The idea came not by a need of the district, but from the interest of a teacher. Initially there were some misconceptions that this was something just for Patsy. While in fact it may have benefitted her personally, it also benefitted the school and the kids.

In discussing the creation of teams in their schools, many of the principals and teachers made reference to a time period approximately seven years ago when decisions were made on inclusion. In 1990, the federal government created the Individuals with Disabilities Education Act, which
became known as I.D.E.A. States were mandated to develop rules and practices to match the federal guidelines, and school districts struggled to fulfill the intent of I.D.E.A. at the local level. The practice of inclusion resulted as an interpretation of I.D.E.A., and directed that special needs students be included in regular classroom settings. Special services began to be brought into the regular classroom as opposed to separate settings. Principal Lorna Doherty said: "Seven years ago there was a lot of research that came out on inclusion, and the board decided we are having full inclusion. They decided that the specialists would come into the classrooms, rather than pull kids out."

The reality was that classroom doors opened and teachers began working together, sharing the same students, and sharing the same space. Teachers who previously felt nervous having another teacher in the room began to appreciate working together. Inclusion helped break the barrier of isolation for both students and teachers. In all of the locations studied, inclusion brings specialists and paraprofessionals in and out of classrooms throughout the day. As Lorna added, "Specialists and classroom teachers are working for the same goals for the children and it isn't so fragmented when teachers work together." Inclusion has changed the context of teaching from isolated self-sufficiency to a shared effort by colleagues. Inclusion has opened the door and provided an experience in teaming for
classroom teachers. Inclusion means teachers are no longer isolated or alone. Every principal in the study pointed to inclusion as one model of teaming in their school, and one that has influenced the acceptance and practice of team teaching. While not every school that practices inclusion has formalized team teaching arrangements, the ideology behind inclusion does support a team approach that paves the way for team arrangements.

Some principals in the study had a strong personal belief in the merits of teaming, and were providing leadership that encouraged a variety of teams within the school. In three locations, principals were working to develop teaming as a schoolwide theme. In Badger Point, principal Barb Halvari spoke of her own background in teaming:

> When I came to Badger Point, I came from a small school called Granite Lake, a school that had 70 kids and probably 5.5 teachers. That's all we did, is work as a team. Everything we did in that school was done with the team-collaboration concept. When I came to Badger Point, I knew that they had no common time at all, no time to talk to each other, and there was very little collaboration. Everybody was doing their own thing in their classrooms. And I just knew of the power, and the fun, to teach in a team teaching situation.

In Cranehill, Idaho, principal Bruce Rawlins described how his staff formed six years ago to be "a total cooperative collaborative school." The school was one of twelve selected statewide to be part of the Idaho Collaborative Project, a state supported plan to train educators in cooperative learning. As Bruce described:
We were trained in "teamness," team building for kids. And if you know elements of cooperative learning, you know that team building is a necessity to cooperative learning. And we just took the next step to our staff, and said, wait a minute, we need to do this as well. If it's good for kids, it's got to be good for teachers. And if we put kids in groups of four because they learn better, four heads are better than one, then why don't we do that with teachers.

The history of teams in this study reveals a variety of reasons that motivated individual teachers to join forces and become a team. All believed that forming a workplace team would offer an improvement to working alone. All were previously acquainted and had a sense of being compatible personalities. All had the opportunity for some input and choice about the team arrangement. Some teachers formed job-shares in order to gain personal time at home and outside the workplace. The motivating reasons for job-shares have been mothering young children and health. In two settings, overcrowded conditions made it necessary for teachers to team. Every principal and every team teacher in this study indicated a basic underlying belief that working together is a positive strategy for teaching and for learning. The principals in the study have been positive in the encouragement of teaming, and in a few locations teaming is a schoolwide theme. The practice of inclusion has influenced breaking down the walls of classroom isolation. Inclusion has helped to provide a model for teacher collaboration. In the early grades of school, teachers pointed out, there has always been a spirit of sharing and
working together with neighboring teachers. Team teaching supports this collaboration.

In the next section, I describe the type and structure of current team arrangements, and how the workload is shared. As indicated previously, two of the teams in this study are job-shares. Four are teams of teachers at the same grade level. Three teams are multi-aged. Two teams are mixed grades. One team joins an art specialist with a grade level teacher.

Team Structure

Job-share teams split the hours and responsibilities of one job position into two halves. Half of the job is done by one individual and the other half is done by the other member of the team. Both job-share teams divide the curriculum in half with each taking responsibility for an equal portion. While the one team divides each day into a morning shift and an afternoon shift, the other does the same but with some rotation and some alternating full days as well. A principal characterized his job-share team as "a couple of clones. They are so similar it amazes me."

Grade level teams divide the curriculum among the partners. As teacher Bob Greunvald explained: "There are three of us, one person is teaching social studies, one person is teaching the science, one person is teaching the language arts. That's basically what we do." The large grade level student group rotates through the three classrooms.
"We're sharing our classes and working together. And it's going very well." This approach is similar to the departmentalization by subject that occurs in middle school, junior high school, and high school. As team member Katie Ford explained, "Everybody teaches their speciality." Katie's specialty is theatre and she was producing a fifth grade play, Tom Sawyer, this quarter.

The multi-aged teams in this study are developing and using a blended curriculum that combines grade levels. Both teachers work together and share all aspects of the instructional responsibilities. These tend to be large class groups and the situations are new. Two of the multi-aged teams contain thirty students and occupy a single standard sized primary classroom space. The third multi-aged team contains almost sixty students in two classrooms connected by an open accordion wall. As I visited them, the teachers were working very hard to meet the challenge of developing productive team strategies. The energy level was high, and the excitement of doing something new suffused the scene.

Principal Lorna Doherty characterized her multi-aged team teachers as "brave" to be implementing both multi-age and teaming. In team teaching situations, the concern often arises about who will take responsibility and make decisions concerning daily classroom matters. At Jerome Elementary, teachers Kareena and Michelle talked about how they decided
to alternate who would take the lead, after fumbling with such matters as who would say, "Now line up for recess." At Arlo Elementary, teachers Colleen and Maria said that they seemed to just naturally handle who would announce and say what needed to be said. At Madison Elementary in Cranehill, Idaho, teachers Cathy and Joyce candidly said they were proceeding with "baby steps" to negotiate their roles since it was all new and they were solving problems as they arose.

In mixed grade situations, two separate grade level curriculums are presented. The team at Longfellow School in Oreska, Montana teaches a mixed grade level, meaning that two distinct courses of study are presented in one classroom. For example, in teaching math the teacher alternates between a third and a fourth grade presentation. While instruction is given to one grade the other grade works independently. Obviously some material spans and includes both grade levels. The mixed grade team at Caniya, Montana, consists of a small third grade and a small fourth grade, each with their own full-time teacher and classroom. Distinct grade level curriculums are taught separately by each teacher. The teachers join as a team and work with one combined group for all projects and activities.

At Badger Point School, the art specialist teacher routinely teams with grade level classroom teachers to do projects that build and enhance classroom study themes. The teaming pair I studied is known as "the opera team" and
joins art specialist teacher, Marne Fulton, with fourth grade teacher, Sharee Shunaro. This team begins early in the fall each year, and the project culminates with the presentation of the students' original opera production at the Theatre in Badger Point at the end of January. This team project brought the school widespread recognition and an aesthetic literacy grant. Principal Barb Halvari said, "It's an amazing team project."

In every school in the study, principals are working to encourage more collaboration for all teachers. Principals explained the importance of arranging the schedule with common grade level planning time for classroom teachers. When teachers share the same planning time, they talk and visit and have the opportunity to enter into collaborative conversations and ventures. Principals view common grade level planning time as the first step in encouraging more teaming. Lorna explained the situation at Jerome Elementary:

The teachers get together by grade level. At the beginning of the year they met and made long range plans for the whole year, themes and things they could work on together and build on each other and feed on each other for ideas.

And, in Graycliff, Julia said:

We have a lot of group team work that happens in this school in a lot of other areas, curricular areas, and school events, where teachers work together. So the idea of two teachers sharing a classroom is not at all opposed to anything else that we're doing here. It fits right in.
The teams in the study differ in organization and structure, but one commonality is the desire to continue teaming into the future. All participants expressed interest in continuing the team, as a teacher said, "Because it works so well, and because there's no reason not to continue." A principal commented, "I've had nothing but positive feedback about the team and will support it into the future." Factors that may influence the team's future are changes in physical space, and adjustments in student population.

Influence on Teacher

Teaming noticeably influences the day-to-day worklife of the teacher. Team teachers believe that working with a partner leads to improved pedagogy and to greater job satisfaction. Improvement in the practice of teaching results from daily sharing and working with another qualified professional. Increased job satisfaction is tied to the fulfillment of human affective needs.

All of the team teachers in the study talked about how teaming provides a wellspring of ideas, and the setting for cultivating and building better ideas. Sandy said, "It's expanded my teaching because I have ideas coming from another person." Her team partner, Rick, said:

I come up with an idea and Sandy will say, 'How about doing this,' and we can generate a much better lesson just by throwing it out there in the air and brainstorming it. Lots of things she'll come up with that I don't. It can only be better.
Teachers cultivate improved teaching strategies by working in the team. A teacher said: "It's really important to work with other teachers. They have different strategies, different techniques. You learn by watching other teachers." Another teacher elaborated:

I think teaming has given me many more perspectives. There are so many things I've learned that are not quite how I would do it. It's 'Oh, I never thought of that.' With a lot of the routine things we've taken some of hers and some of mine. So I've learned new routines that work better. In those ways it will change how I continue to teach. I'll use the better routines.

Teachers explained how working with the team has positively influenced being organized and responsible. Cathy indicated, "It makes me more conscientious because I have responsibilities to another person and with another person." Colleen talked about "accountability" and said, "I don't let things slide." Lynn said, "When you teach your own classroom and you have a good idea, you just do it the next day. You don't have to run it by somebody. We modify things and it ends up definitely better."

A principal commented on the efficacy and benefits of team teaching situations in her school:

If you have three teachers working together, you have the power of three doing the same thing instead of everybody trying to do it themselves. So, they do three times as much. At first you would think they'd just help each other and get the same thing done, but pretty soon you find they're doing three times as much as they ever did before. It increases their productivity.
Most teachers talked about experiencing less stress as a team teacher as compared with individual teaching. Kareena expressed it this way:

I'm more relaxed, I'm less stressed in the classroom because I know if I miss something, Michelle will pick it up. Just knowing this has made teaching easier. I really look forward to coming in and sharing the ideas, and sharing the students. Less stress, so much less stress. I know I'm happier in my job. I love teaching regardless, but I think I'm happier because there's someone to share everything with in that classroom, and also to help with some of that responsibility.

Colleen, another teacher, confirmed that "teaming reduces the stress of teaching." She said, "Teaching is a really high stress job, but I have a lot less stress now." She continued, "We're more on our toes, and we're better organized because there are two of us. We don't have to take so much home." She added: "There's someone else who understands the exact frustration you have about a certain child. She understands it and she might have ideas to alleviate it. Stress reduction is a big one." Colleen wrapped up her thoughts by saying, "Teaching can be really isolating, and it isn't now."

Less stress is closely connected to job satisfaction. In Jerome, Principal Doherty reflected on how "I don't hear people grumbling, they seem very happy. They compliment and encourage each other." From Joyce, a teacher in Cranehill: "I feel like it's not all on me, and all of us benefit. I like coming to school every day and knowing I'm working with somebody else." Joyce described her experience: "I'm not
shutting the door, I'm opening the door. And I'm listening to someone else teaching, and I'm watching her teach."
Carol, a teacher in Woodville supported the same notion: "I look forward to coming to school every day. I love my job, but I think it's even nicer that I come and have pleasant people to teach with." Another teacher agreed: "I can't picture not doing it now, opposed to when I didn't team teach. I was very isolated, I felt like I was doing it all on my own." In Jerome, Michelle said: "There're days when I'm having a bad day, and Kareena picks me up, and there're days when she's having a bad day and I pick her up. You don't have that when you're in there alone."

Team teachers express a noticeable level of job satisfaction. They say they like and enjoy coming to work each day. They find positive energy in knowing there's another human being there for them. In Caniya, Principal Morris summed it up when he said, "Who says going to work has to be drudgery, or something distasteful." Team teachers agree with Morris, teaming makes going to work and being on the job a positive and satisfying experience.

Style

Team style is another topic that emerged in the study. Style is the distinctive manner in which the team operates as it accomplishes its business. The two components of team style identified here are planning and dynamics.
Teamwork requires planning and coordinating beyond that of individual teachers. When teachers work together, the amount of time needed for planning increases and regular scheduled planning time is essential. Every principal gave high priority to common planning time for team teachers and worked to design school schedules that granted this time.

 Principals have worked to design school schedules that give teaching teams and teachers of the same grade level common planning time. In the best scenarios, teachers gain regular daily prep time with team members. In the study, team teachers have a minimum of one or two co-planning times per week.

 Principals recognize the need and value of co-planning times for team members. As Principal Rawlins said, "Through quite a few headaches, we arrange our schedule so that the teachers who are teaming have prep times at the same time." Another principal explained, "I do have common planning time for each grade level, and was able to establish that by working the specialists schedules so that all children at a grade level are with a specialist at the same time." In Badger Point, Principal Halvari said that when she became principal, "The number one thing was to establish the grade level planning time, the common time." This priority was based on her experiences with "the team-collaboration concept" at her previous school, Granite Lake. She said, "When I came to Badger Point, they had no common time at
all, no time to talk to each other, very little collaboration, and in fact, everybody was doing their own thing." Halvari believes that common planning time is the first step in building collaboration within a school. Common grade level planning time provides the opportunity for regular classroom teachers to talk, to share, and to take the first steps toward collaborative ventures. Principals see providing common planning time as a means to encourage the spirit of teaming.

Other structured co-planning times occur with early release day schedules in some buildings. In other buildings, the occasional use of substitutes funded by release time monies provide opportunities for teachers to meet and plan.

Unstructured co-planning occurs informally for team members throughout the day. All teams talked about "grabbing" time during the day to "check-in" with each other. Phil, a teacher at Judson, talked about informal planning this way: "We grab time, before school, at lunchtime, we see something happening we talk." Katie, another Judson teacher: "We run across the hall to each other to check about things." While waiting at Judson for the afternoon bell, I observed Phil, Katie, and Bob conferring together as students completed lunch recess and lined up. These types of informal meetings are common for teams working together. Rick, a teacher at Spruce,
indicated, "We sometimes decide to stay late." At Woodville, Meg mentioned, "We're on the phone at night, and we're always back and forth across the hall." At Caniya, Cami said, "This whole end of the school building is ours and we walk in and out of the rooms comfortably." At Badger Point, Marne explained how they communicate within the building by electronic mail. In job-share teams, the two teachers are not in the classroom or in the building at the same time, so they agree to meet during the midday overlap of their individual schedules. As Joy explained: "We meet at noon here in the classroom, it's a habit. We get together and talk and then I get things ready for the next day, and then I take off."

In the preceding discussion, team members have been talking about when and how they arrange their planning time. The discussion now moves into how they plan and coordinate in the classroom. How are decisions made? How do they share and divide the tasks among the team?

Questions about making decisions yielded common reactions in all the interviews. The teacher would pause and look at me with incredulity. In short, the teams in the study did not have a problem with making decisions. As Kareena said in Jerome: "We do a little give and take, and we share our ideas. Sometimes we'll make a decision right away as we talk about it."
In Cranehill, Cathy gave this view: "Sometimes you have to let go of something you have. That's an important part of team teaching, it's give and take, it's like a marriage. You can't always have what you want." The Cranehill staff has been trained in consensus building to the point that, as Cathy said, "I don't think we even consciously think about it anymore."

Teams have to decide how to share and divide necessary work tasks. New teams have many decisions to make as they coordinate and establish their "modus operandi." Older teams have already worked through preliminary decisions and operate from a mutually shared foundation, often-times proceeding with the celerity of a knowing nod or glance.

A teacher said that a typical planning session consists of "delegating duties, deciding who's going to do what." Another teacher said, "We tackle the major blocks first and then we work on small group instructions on our own. There's not enough time for us to do everything together." Another teacher talked about using the Internet for ideas and doing individual research and "then meeting together to look at the different ideas we have found." Post-it notes are a popular device for keeping running notations to guide what needs to be done in planning sessions. In my observations, I noticed that newer teams are more carefully structured in their approach to sharing and dividing tasks than the well-established teams. They were polite, tactful,
and thorough as they proceeded generally from large curriculum and time blocks to smaller ones. Older teams, in contrast, operated more casually, and appeared to make many decisions by means of a knowing nod or glance. Team members knew intuitively who would do what and how and when it should happen. It's as if they read each other's minds. A strong foundation made way for successful ongoing communication and planning.

A basic underlying decision for teams is how to divide the curriculum among team members. In talking with team teachers, the phrase, "divide and conquer," came up repeatedly. In all but the multi-age teams, the curriculum is divided according to the strengths of the team members so that each one is responsible only for certain areas such as math, social studies, language arts. In all teams the chores tend to be divided according to interest and expertise: one person is better with money and never misplaces the book order, one is better at writing the newsletter. Dividing the curriculum and tasks among team members offers a means of lightening the work load while shouldering the areas most suited to the expertise of each.

One principal offered a cautionary note regarding the shared work load. She said: "Teams can continue as long as everybody is pulling their weight, even if it's the idea person. The ones I've seen fall apart are when the other one or two gets tired and then it's over." The teams in the
study were functioning effectively, and it was clear that individual members were carrying their part of the load.

The use of themes as a pedagogical strategy arose several times in the interviews in connection to how teams plan. In Jerome, Kareena and Michelle explained themes as a means for planning. Michelle said, "We have the whole year blocked out for major thematic units. So in September we knew that for social studies we were doing 'Depending on Others.'" In Judson, Phil, Katie, and Bill talked about the fifth grade traditional themes such as rocketry, square dancing in the spring, and the current production of Tom Sawyer. Glenda and Cami went to space camp for teachers one summer, and have used space as a theme at Caniya. Both the teachers and principal at Caniya, where the total K-12 enrollment is 227, spoke of a desire to have a schoolwide theme for all grades, hopefully in the spring. They were thinking of a theme such as Lewis and Clark or the Mullan Trail. Their idea was that all grades would participate and be part of the theme.

At Badger Point the teachers and principal proposed and won a grant for aesthetic literacy. Winning the grant has made the arts a connecting theme in this school, and the art teacher, Marne, regularly teams with each of the classroom teachers. The first part is a full school theme called author-illustrator, which is across all grade levels. A second part is grade level enrichment in which each grade
level studies one art form specifically, and a third part is an enrichment cluster involving thirty visiting artists on Fridays in the spring. Winning the grant was a turning point for this school in terms of teacher collaboration and teaming, and a milestone for the principal's vision of becoming an arts school. The opera project is part of the grade level enrichment component, which at the fourth grade level is theatre.

Classroom discipline is a challenge for all teachers, and team teachers are no exception. Team teachers make decisions and come to agreement about a uniform approach to classroom discipline. Every team member talked about the development of a workable classroom discipline plan, and the need for consistency between team members. In some buildings the entire faculty has committed themselves to a singular discipline plan, in others a variety of plans operate side by side. On-site observation revealed that the most effective discipline plans are consistent schoolwide, and help contribute to an improved overall climate.

Teachers believe that classroom discipline is better with two people. Rick said, "Between the two of us, we seem to pick up on things." Behavior does not slip by unnoticed. Carol said, "Behavior is a big thing, we work with kids together." Another teacher explained that it gives the child the benefit of a fresh adult, when the other team member is worn down with frustration over the situation.
Team teachers work out a consistent discipline plan that is suitable and workable for them. Sometimes the plan is part of a total school plan. All teachers indicated a belief that a team approach to discipline is important to team success in the classroom.

The previous section focused on team style in terms of the operational aspects of planning. The next section looks at the human dynamics of team style: relationships, attributes, synergism, selection.

**Dynamics**

Observing the working relationship of Rick and Sandy at Spruce Elementary, I recorded this note: "They know what they're doing. They're very well organized, coordinated, and syncronized. The flow moves right along and they just know what is going to happen next and who's thinking what." Rick and Sandy have been teaming for eight years and the flow of their interaction is typical of older teams. They act as if they are parts of the same larger brain. By comparison, younger teams appear to put more deliberate effort into the relationship. In Jerome where the team is brand new, Kareena said:

Michelle and I said at the beginning of the year that if we had a problem with each other we need to talk about it. We need to deal with it ourselves, it's like a marriage, you are working very closely with that person and you have to be very aware.

In discussing personal attributes, team members tend to be quick to say how they are similar, and slower to define
how they are different. The following teacher comment is typical:

We're similar because we're both pretty flexible, and we work well together. Nobody really takes the show. Our teaching styles are fairly similar, the way we communicate with the kids. A lot of our beliefs on how kids learn and the whole education process is the same. Dissimilar? I guess I'm more organized, I have to have my ducks in a row. I have to know what's happening next. She's better at winging it. I can springboard off of something, but I need just for my own stress level to know what I'm doing and have it planned out.

Every team teacher talked about similarities in basic beliefs, philosophies, expectations. Teachers recognize their different strengths and use these to advantage in the team. A teacher said this about her team partner: "She is very creative, and I'm more concrete. It works out well because you need both." Another teacher said, "It's a nice fit, we don't compete as far as our likes and dislikes. We're well adjusted and that's great." A principal commented, "The team is similar in personality to the point where they're willing to give and take, and what's best for the team might not be what they want, but it's still best for the team." Teachers in teams are willing to compromise to do what is best for the team and its students.

Principal Matthews talked candidly about team conflicts that had come up in her school. [These problems were not in the team studied.] One problem case resulted from a pairing where one teacher "is a more dominant personality than the other teacher and tends to sort of take over." In the other problem case, a "persnickity" teacher wants things "done
exactly right," and takes down her partner's bulletin board, "and puts the same bulletin board back up but just neater and more square." Matthews said that her own personal experience in teaming helps in seeking resolution to such problems, but "we're just beginning." In the teams studied, participants appeared well adjusted to each other in their shared worklives. Stories of conflicts such as those revealed above, did not surface in the teams studied.

Through the team relationship, team members become well acquainted with each other and know each others personal characteristics. They develop a working relationship based on many interpersonal skills and factors. They develop a strong sense of give and take and operate like members of an effective family group. A recurring metaphor throughout the data is that the team is like a marriage. Success at teaming requires teachers to give and take and to utilize good interpersonal skills.

Synergism results from the dynamics of two personalities working positively together. Team teachers talk of building something together that is bigger, better, stronger, and larger than the sum of individual efforts. A teacher said, "I feel stronger with her; she feels stronger with me."

Team teachers often say, "Two heads are better than one." Team teachers spontaneously talk about two adults, two brains, two heads, two sources. Teachers describe the
process and pleasure of sharing and the spirit of partnership that sustains the team. In the team setting, materials and resources are shared and tend to be jointly owned. Teachers talk about improved morale, friendship, and happiness. Teachers say they no longer feel isolated or alone. Teaming illustrates the value of building community and becomes a model for people working together.

Team teaching presents students with a unique opportunity to see two adults communicating positively with each other. Teachers talked about the role of the team as a cooperative model for students. Marne said,

I know it's really hard for sixth grade and fifth grade to work in groups. They see teachers modeling that they can work together, and that there is this relationship. If kids work in groups and they don't like the person, that's not what it's about. It's about being able to work together. And a lot of the teachers that I collaborate with, I'm not necessarily friends with, but we've developed some sort of a team language so that we can communicate. There are very different people working together. It's a really good model for students.

In classroom practice, teaching teams demonstrate the dynamics of a close working relationship. The partnership thrives on give and take, and many say it is like a marriage or a family. The synergism of two teachers working together produces something greater than the simple addition of individual efforts. Team teachers say: "Two heads are better than one." Teaming provides a favorable cooperative model for students. The data from the interviews makes clear the benefits for teachers. How does team teaching
benefit students and their parents? The response to this question is the focus of the next section of the analysis.

Students

The ultimate goal of teaming arrangements for teachers is to improve learning and growth opportunities for students. Although the primary focus of the study is on the teachers and principals involved in teams, the focus now moves to the students and deals with the question how does teaming influence the lives of students? How does teaming reach out to parents and families?

Benefit to Students

At one of the schools in the study, a team teacher recently had students write on the topic "How I like being in this multi-age class." She shared the papers with me. As I read, I discovered that most students wrote about friendship with a new circle of friends and also about how it's nice to have two teachers. I was struck by the absence of negative responses. Without exception, all students said they liked having two teachers.

A teacher shared her perceptions about the view of students: "I think it's a very positive influence on students. Not only for them seeing the cooperation between the teachers, but they have two teachers helping them." She added, "If there's a student with a problem, we notice it even quicker, or we're quicker to come to the decision that something needs to be done."
Discussing the advantages of two teachers for students, another teacher said, "Students get more than one perspective." She explained: "I'll introduce something and then say to my partner, 'Do you have something to add to that?'" She believes this helps instruction, "Some children may not get what I was saying from my explanation, but when the added pieces are put in, they get it."

All those interviewed for the study concurred: it is beneficial to students to have more than one teacher. Teachers believe the learning environment is richer and more interesting for the students when there's more than one person. Students benefit from associating with more than one adult and from experiencing more than one personality and approach. A teacher said, "They have the benefit of two different points of view, modes of demonstration, teaching styles." Another teacher commented, "We give the children more individual help because there're two of us. They have more one-on-one attention." Students feel more secure, having two people to care about them. Principals expressed similar views. In Badger Point, Barb said, "For the kids it's more fun to have a group of teachers to interact with instead of just one all day." Barb added: "I think that's true at all grade levels, not just the upper grades. It's good for all the kids." In Graycliff, Julia said, "The children really benefit by having two teachers, they learn to relate to both."
Because students have multiple learning styles, exposure to multiple teaching styles is of benefit. Sharee, a teacher, said:

Everybody learns differently. And the more students are exposed to a variety of teaching styles and learning styles, the more chance something will stick in their brain. Maybe I said it one way and maybe Marne will say it another way.

Hope, a principal, talked about her team of Phil, Bob, and Katie, "In terms of student growth and benefit, if you have three teachers then the kids get used to having more different styles, the benefit of three as opposed to two or opposed to one." Bob said, "I think students are getting a better shot at learning. They're getting a better program." Phil said, "As far as learning, what it's done is allow us to really get into the content and make it exciting."

Lorna, a principal, further affirmed the benefit of team teaching for students:

Bouncing ideas off of each other, working two intelligent people together, creates a better situation for students all the way around. Maybe one person knows one method of teaching something, but the other person says 'oh have you thought about this or tried this' and it's bound to help the student because there're more options for learning.

Teachers say that team taught students are less likely to "drop through the cracks." Teachers working together monitor students more closely than teachers working alone. Student needs do not go unnoticed. Phil elaborated:

We talk and collaborate and we talk about what we're doing with certain students and things that need to be encouraged and there's no sliding or gliding by the students. We know where they all are. And we know
what to expect, and know what their strengths and weaknesses are, and we can motivate them better.

Phil's fifth grade team works hard to hold students accountable and responsible. Bob, a member of the same team, said:

We're not trying to burn kids out, we have a lot of fun in fifth grade, but they do learn how to work, to use planners, to be responsible. Every time a kid misses an assignment a parent is notified. We keep parents notified. Anytime you expect more, you get more.

Another teacher explained how he and his partner bring things about students to each other's attention, and then wait and watch for it to recur. He said: "We've been doing this since the beginning. I'll just almost miss something, and then I'll notice it too, through our collaboration."

Teachers working together have the ability to focus clearly on student behavior and performance, and to verify perceptions by comparing thoughts with team members.

Repeatedly teachers and principals said that teams tend to use more active learning experiences and more projects for students. This approach is viewed as favorable to student learning, and reflects the widely held belief that humans learn best when actively exploring, thinking, constructing discovery-based knowledge. Team teachers and principals spoke positively of moving away from dependence on passive textbook and worksheet exercises, and using more active hands-on learning. Team members working together have a larger store of resources and energy for the development of active learning. A teacher said, "We tend to
do a lot of hands-on and keep students involved in learning, because we have the energy to do that, and the time to get the materials."

Caniya principal, Stan Morris, spoke of the connection between team teaching and active learning:

When you get into teaming and team teaching it really becomes a project based hands-on type of activity. Kids learn better that way. It provides the environment that encourages kids to learn. I think kids have to like to learn, and school has to be fun. If it's not, they're not going to become lifetime learners. A person doesn't go out and spend a lifetime playing golf unless they like golf. You're not going to go out and spend a lifetime learning unless you like learning. At the school we can turn them on or off to learning.

The classroom observations in the study revealed an emphasis on activity-based learning. For example, in Graycliff I accompanied a primary grades field trip to a Native American Museum. At Woodville I watched pairs of first and sixth graders work together to dissect and analyze owl pellets. At Badger Point I listened to fourth graders brainstorm opera lyrics. At Judson I watched fifth graders practice songs and choreography for their production of Tom Sawyer. And, at Graycliff, I observed a second grade math lesson based on a giant zucchini in which the fractional pieces of squash began to disappear into the grinning mouths of the young mathematicians. All of these are examples of hands-on activity-based learning. All were part of a regular day at school, and were the result of the activity-based orientation of team teachers.
If team teaching improves student learning, do school assessment instruments reflect this improvement? Does teaming produce discernable differences in student achievement as compared to non-team taught students? What kinds of measurements are in use and what kinds of results do they show? There is a strong impression on the part of both teachers and principals that teaming results in greater student achievement. Unfortunately, the standardized measurement instruments in place do not adequately measure and/or compare students in both traditional and team settings. The assessment data available, however, made clear that teaming is not detrimental to student learning. The comments of principal Julia Neilson at Mountain Meadow School are typical. She said:

The children coming from that [team] class are coming out consistently the same as the other two [non-team] classes, and statistically without any difference between our three second grade classes. I took a look. Numerically, I could not tell any difference. What I saw was the same pattern of growth for children in that classroom as the children in the other two classrooms. So, even though I say it has been beneficial to their learning, I think that may come in terms of the development of a love of learning, and the opportunity for learning. As far as assessment, the assessment is showing that surely it is not detrimental.

Caniya's principal Stan Morris talked about test results and said, "I don't know that on our standardized tests there's any significant increase in how well they do, but there's no decrease." He explained that elementary scores have increased, but that they just changed from CTBS to CTBS Terra Nova, a "more user friendly test for kids and
teachers." Morris believes that improvement in the elementary grades is the result of a number of factors including inclusion by the Title I teacher, inclusion by the gifted and talented teacher, a team approach to literacy learning, and other teacher teams. Morris said: "I'd like to think it's all of it, and I don't know how you would ever separate it out. Is it the team?" Morris, like other principals in the study, could not separate the factors influencing test scores. Teachers and principals explained other variables that affect test scores. For example, composition of the class group tends to be uneven from year to year producing a "higher scoring group or a lower scoring group." Mobility, the rate at which students transfer in and out, also impacts scores. At eight out of ten schools the mobility rate is around twenty-five percent. As Barb Halvari pointed out at Badger Point, "Over a four year period, theoretically, we have an entirely new student body." Given the complexity and combination of factors in the schools in the study, assessment information was not sophisticated enough to discern the benefit of team teaching to student learning quantitatively. Across-the-board, however, teachers and principals shared a widely held perception that team teaching helps students academically and socially.

Standardized achievement tests are administered for the first time in grade four. Also at grade four, writing
assessments are administered, as well as some school
district testing. In the earlier grades, running records
are used in conjunction with literacy programs to track
progress in reading. Portfolios are in use as authentic
samples of a child's actual schoolwork.

At Cranehill, principal Bruce Rawlins said: "We don't
put a lot of stock in standardized tests. That's not the
instrument on which we would base too many decisions at our
school. Our scores are high, but that's not where we get
our satisfaction." Bruce said, "We want to look at student
growth." His school is developing a "level testing"
program. He explained in this way: "level testing puts kids
at a certain level, and we test them in the fall and in the
spring and measure growth, and develop plans for each
individual."

At Woodville, principal Sharon Drake said that she did
not have any "hard" data for evaluating student achievement
resulting from teaming, but she did say: "In terms of what I
see observation-wise, I think it has helped those students
as they move on. They're learning." Her school is also
currently working on the development of new assessments to
be able to quantitatively discern the benefits of
innovations like team teaching.

Team teachers also shared their observations on
student learning and outcomes. A teacher said: "On the
assessment I do in the classroom with anecdotal records and
watching portfolio work, I see so much. The whole child is expanding in all areas." Another teacher confirmed:

Tests measure just what tests measure. They don't really talk about student learning. If you want to teach to a test, you teach to a test. Our district right now is really pushing to make sure that we have some form of assessment that shows progress.

Every principal downplayed the role of standardized test scores and standardized assessment to measure student learning as the result of team teaching. Bruce Rawlins said, "Standardized tests serve as an audit for the state. I hate standardized tests and scores, however, our school has the highest in the district." In Jerome, Lorna Doherty insisted I go talk with the superintendent, Dr. Jim Noonan, about test score records. Dr. Noonan began by saying, "Standardized tests don't apply to what's here. Our teachers are working together to enhance every opportunity for students to learn. Our kids do score higher on standardized tests." Dr. Noonan explained:

Our standardized scores in grades 4 - 11 are and have been in the upper extreme. Our scores are in the middle and to the right of the bell curve. By the time our students get to high school they are ahead, ahead of Montana, and Montana is ahead of the nation.

Another principal explained high standardized test scores at her school in this way:

The reason why our test scores always look so good is because we have such high language scores, which help push all scores up. The real proof of it comes in the focus that the primary teachers put on language with a strong phonics program, with emphasis on writing, journaling, spelling. By the time students get to the 4th and 5th grade, their language scores are pushing all scores higher. I'm not convinced it's because of

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teaming. I'm more convinced it's because of extremely hard work at the primary level.

In all schools in the study, the staff is giving serious attention to the continued development of assessment tools that monitor student progress, such as running records, level testing, and portfolios. More evaluation and assessment on student learning in team teaching settings is needed to make conclusive remarks on the quantitative impact of team teaching on student learning.

At four of the sites studied, team taught students were enrolled in their final year of elementary school, and will move on to middle or junior high school next year. Principals and teachers spoke of receiving positive feedback from the next school regarding the level of preparation of students who are team taught in the final year of elementary school. Both principals and teachers viewed this positive feedback as an indicator of student achievement and success in learning.

Judson School, for example, takes great pride in a reputation for sending well prepared students on to the next school. Teacher Bob Greunvald boasted, "We get great feedback from the middle school. They say they can always tell Judson kids from other kids." Teacher Katie Ford bragged: "The feedback is huge. The Judson kids are the ones who know what's going on." Teacher Phil Jacoby said, "The fact is our students do really well when they hit the middle school and make high academics." Phil explained, "We
hold kids accountable. We hold them responsible for certain things, we hold them accountable for their work. We expect kids to learn."

At Woodville, teacher Carol McCoy said, "The best assessment I could make is in the comments we get from the junior high teachers. They feel it [the sixth grade team] is very beneficial." Carol went on to explain that the communication between grade six teachers and grade seven teachers is good and that they look together at subject areas and articulate the curriculum. Woodville principal Sharon Drake said, "Our sixth grade team eases our children into the adolescent junior high program." Sharon's comment was repeated by teachers and principals at each school. Being in a team taught situation the last year of elementary school is thought to ease the transition to multiple teachers, separate subjects, and higher expectations at the next level of schooling. Positive feedback strengthens the view that team teaching in the last year of elementary school benefits learning and helps prepare students to make a favorable transition to the next school.

In summary, the assessment instruments currently in place indicate that teaming is not harmful to student learning or to student achievement. As principal Bobbie Jo Matthews said, "I wouldn't team just for the sake of doing it or because it's convenient, I would only do it where I
thought the success of the students would at least be maintained or greater than prior to teaming."

Parents

As teaching teams work with students, they reach out and develop relationships with parents and families. These connections are based on the mutual link to the child and schooling. While at Arlo, I talked with district superintendent Rudy Solomon, who said: "Parents view the teaming as positive for their children. They see two quality professionals in the classroom. Parents are supportive, and like the teaming." While observing at Arlo in the early afternoon, I spoke with two parents who came into the classroom as volunteers. I asked about their perceptions and thoughts regarding their child in a team taught class. The man quickly replied, "Yes, I am satisfied." The woman said, "I am still finding out." Both were volunteering time on a regular basis, both were involved and participating.

In Jerome, I conversed with a parent volunteer who admitted she began the year with apprehensions about team teaching. She said, "I worried about the size of the group, but now that it is going, I am very satisfied." She added, "I like the way the two teachers work together. Mrs. Winslowe is more athletic, and Mrs. Galven is more compassionate. They complement each other well." In Woodville, principal Sharon Drake indicated that parents are
supportive of team teaching because their children experience the opportunities offered by each of the teachers at the grade level. The best of each teacher is offered to all children. In Cranehill, principal Bruce Rawlins said, "Parents feel good about coming in and seeing teachers who are upbeat and happy. They don't see teachers being negative, bitter, and leaving as soon as the bell rings." Team teaching gives students the best of both teachers. Parental support stems from positive student experiences.

Communication with parents is important for team teachers. At Jerome Elementary, teacher Kareena Galven spoke frankly about parent communication. She said,

Sometimes a parent walks into our room, and if we need to say something to that parent, one of us will say something, and then the other will walk in and not realize and we'll duplicate it. There are some communication issues that way.

Kareena added that she and Michelle intend to handle this by taking turns talking to parents and making phone calls.

At Graycliff, teacher Lynn Logano explained how the team worked to make sure both teachers knew what was happening with each other regarding things to be reported to parents. Lynn said: "We've been caught a couple of times where something has been left out, and a parent will come in and I'll not have a clue. And that is not a good situation."

At Spruce Elementary, principal Sarah Cole said that team teachers can give parents a better perspective. "If
both teachers are seeing the same thing, it's a stronger message to parents as far as what the child needs." Spruce teacher Rick George said: "In talking with a parent, you have a whole other qualified teacher who can say, this is what I see too, this is my observation. You have someone to back you up."

At Judson, principal Hope Andreson gave this example of a recent interaction with a parent:

Last week a parent called real happy in one subject and just mad as heck in the other. So what do I do with that? Do I go to the teacher the parent is mad at, or do I go to the team? I have to go to the team, I can't go to just one. It's the team working for kids.

Parents of elementary school children sometimes make a request to the principal regarding assignment of next year's teacher. Requests generally reflect parental perceptions and experiences with siblings. Teaming multiplies the number of potential teachers for a child, and influences requests.

In talking about parent requests, a team teacher said, "Parents request their child to be in our classroom because of the team, because they see the benefit of two teachers, two perspectives on a child, two people making a plan for their child's success in school."

Principals do not encourage and would prefer to eliminate the long-standing tradition of parent requests. When a team includes all the teachers at a given grade level, principals are able to tell parents that their child
will have the benefit of all teachers in the team. According to principals, requesting parents are more satisfied when they realize that their child will have more than one teacher. When a team includes all teachers at a grade level, parent requests become a moot point. Parents view teaching teams as favorable for their children.

Support

Support consists of the facilitating influences in the school setting that foster the team, its teachers and its students. Support is generally given by the principal, by the staff, and by the school district. The view and vision of the principal influences the existence of teams. The attitude of the staff also affects the team. The philosophy and policies of the school district assist in making the team a viable possibility. In this section, I first look at the role of the principal, second I discuss staff influences, and third I talk about school district philosophy and policies.

As the immediate and supervising superior, the principal has an influential role in the life of teams. In this study, all principals viewed teaming as a favorable practice and acted to encourage the team. All principals expressed positive attitudes toward the team and teaming. At three sites, the principal championed all forms of teaming and purposefully worked in that direction with the staff, endeavoring to build an entire school based on the
concept of teaming and collaboration. At the other sites, principals offered no resistance or hindrance to teams. As one more traditional principal said, "I give the team full rein."

Every principal expressed the desire to see more collaborative efforts between teachers at a given grade level, and talked about the necessity of common planning time as the first step in that direction. Common grade level planning time occurs when the regular planning time of an individual teacher coincides with the regular planning time of other teachers at the same grade level. Common planning time provides the opportunity for teachers to share and discuss ideas, to pool resources, and to try teaming strategies. Without common time, collaboration is far less likely to occur or to be successful. A principal said, "Establishing grade level planning time, the common time, is the most important thing." Principals see common planning time as the first step toward collaboration. Grade level collaborative efforts may lead to the formation of teaching teams.

Principals told me repeatedly how they provide the "freedom" for teachers to do their jobs without setting limitations. In Caniya, principal Stan Morris said: "I step back and let them do their teaming without my direction. My presence may be a hindrance. They're the ones doing it." Stan's first step to facilitate teaming is to encourage
teachers to get together and plan and work on ideas. He said, "I was trying to direct this thing and it never happened. By going the other way around, they get the things going themselves, and I get more teaming going on."

Another principal also commented on teacher autonomy to team: "It's not so much what I do, it's their own initiative and their ability to work well together that's making it work."

Principal interviews yielded information about workload, and how team teacher effectiveness in the classroom in essence reduces administrative workload. This was mentioned with regard to teacher effectiveness and discipline. A principal reflected: "If I give a group of teachers an assignment, I know they're going to work together on it. They get it done faster, they get it done better." Another principal concurred, "A lot of concerns that might have turned into discipline problems are handled within the team. They work through those situations with students, and it makes my life easier." Teams take care of student problems without sending the problems on to the principal's office. All principals said that with teams they observe less disruptive behavior in the classroom. Teams have greater power and energy to keep kids motivated and involved in positive ways.

All principals commented on being affected by the positive energy created by teams for the school as a whole.
For example, at Cranehill, where the school is a model for teaming and collaboration, principal Bruce Rawlins summed it up by saying,

I'm energized because teachers are energized. I believe you aren't stagnant, either you're regressing or progressing. There's no stagnation in education. And we're progressing, and it's energizing. People feed off one another. I feed off teachers. I learn a lot from teachers. I don't look at myself as being the all-knowing person in the office because I'm certainly not. I feel energized from what goes on in the school.

Rawlins believes that the teaming process fuels this energy in teachers.

Principals perceive teaming as an avenue for improving the school environment. Teachers, students, and parents are happier in team settings. Principals believe it helps build a stronger sense of community in the school. Ultimately, this creates a better environment. At Badger Point where the emphasis is on teaming, principal Barb Halvari explained how the number of disciplinary referrals has declined markedly in the six years she has been principal, dropping from 420 per year to only 77 last year. Barb attributes this drop in disciplinary referrals to improved school climate resulting from the emphasis on teaming. She said, "Teaming makes the whole environment here much more pleasant." Teaming emphasizes a communal approach to problem solving.

Principals candidly said that their seasoned teachers, the ones that have been teaching for twenty to thirty years, are the ones who have the most difficulty with the concepts
of teaming. Principals of the same vintage understand, saying how in the past it was a point of pride for teachers as well as principals to be able to handle everything singlehandedly. Anything less was a sign of weakness. Teaming represents a paradigm shift for many schools, a shift from teachers on their own to teachers as members of a community. Principals encourage seasoned teachers to try teaming by taking small steps in the direction of collaboration. Principals have to be aware in all routine communications that the team consists of more than one person. The same information must be delivered to all team members simultaneously. On this issue a principal commented, "Communication has to go to both partners." Another agreed, "I have to be very careful to deliver information to both people, I never do just one."

Supervising teams does require a shift for administrators. No longer are teachers singular entities. Any issue involving a teacher in a team involves two people, not one.

The relationship between the team and the larger school staff also affects the team. As a teacher explained, "Over the years, teams get viewed as couples, and that's probably how the other people view us." Another teacher said, "The staff says we're inseparable, attached at the hip." In talking with team teachers it became clear that not all comments are harmless jabs. Team members confided awareness of undercurrents from the other teachers. Others may view
the team as having special status or an easier worklife. Others may feel threatened by the solidarity of the team or simply be jealous of their connection. In the case of men and women on the same team, other staff members may make unkind insinuations and jokes in reference to the relationship. With any organizational change there is apt to be suspicion and skepticism, and team teaching is no exception. At all schools, team teachers said they do their part to foster good working relationships with the larger staff, and downplay occasional negative comments.

School district philosophy and mission statements provide an overall vision to guide present and future practice. Do these official statements offer support to the practice of teaming? Analysis and interpretation of documents reveal that philosophy and mission statements do not contain direct references to teaming. On the other hand, the same statements do not prohibit or limit the practice of teaming. In reference to philosophy and teaming, a principal told me, "I'm not sure that I see a definite link, but I don't see any barriers to it." A teacher said, "The philosophy of our school district is very vague. We work for the wholeness of the child." Another teacher said, "We have a school philosophy that is very child centered, and that's the crux of it right there. Team teaching ends up being child centered." Another teacher said, "Providing quality education for the children in your
classroom, that's exactly what we do." All teachers were in agreement, they want to do the best for children and desire to meet children's needs, mirroring the broad sweeping statements included in all philosophies. Teachers see teaming as a means of accomplishing these overriding goals.

At Jerome, principal Lorna Doherty pointed out that the official philosophy statement includes: "Student centered and directed to meet the individual needs of students at every level of development." Lorna believes that teaming fits into the intent of the statement. Continuing to read, the document says, "Teaches cooperative skills," and "Requires a schoolwide climate which is positive and that encourages high expectations." Although the Jerome philosophy statement is slightly more specific in comparison with statements at other locations, it does not include a direct reference to teaming.

At Cranehill, where the emphasis is on schoolwide teaming and collaboration, principal Bruce Rawlins said, "All of the things we've been talking about we have in our philosophy for kids, but we don't have it in our philosophy for teachers, for ourselves." Bruce explained that his staff only recently put this together for themselves, realizing that "if teamwork is good for kids, it has to be good for us." Bruce believes that philosophically, "Teaming fits in, and it may be one of the missing pieces that we need to put in place."
Some school districts are beginning to shift to an emphasis on teamwork. The principal at Judson School explained that their new superintendent emphasizes teaming. This year's administrative retreat consisted of two days learning strategies to be a team. She said, "We know that our marching orders are coming from someone who believes in strong teams, strong administrative teams, strong building teams, and what that means for kids as they go through school." The emphasis on teamwork as an approach to school leadership strengthens the viability of teachers forming and working as teams.

At another site in the study, the principal explained how teaming is supported by the school board: "For the last four years it has been a school board goal for our district to encourage collaboration." This goal meshes with the principal's personal belief in the power of teaming and collaboration, and her determination to create a school based on these ideas.

Teaming created by an unusual employment arrangement, two teachers sharing one job, has implications for school policy. Salary, benefits, hours, accountability, all are contractual items requiring resolution prior to approval of job-share teams. In Oreska, Montana, the original job-share team paved the way fourteen years ago, working with the superintendent and with the personnel director to establish policies for job-shares. One year later, the team
of teachers Ivers and Kinster was formed, following the precedent set by the existing job-share team. Visitations to Oreska helped provide information for teacher Patsy Meyer as she worked to convince the Graycliff school district of the efficacy of job-sharing. In Graycliff, school officials and trustees were resistant to the idea, and the process of developing a job-share policy took two and a half years. Both in Oreska and Graycliff, the teachers desiring to form a job-share team played a significant role in the creation of a school district job-share policy.

Culture

Culture is the fourth theme to emerge from the data. Team teaching provides a setting that encourages and enhances culture. Within the format of the team, individuals learn and grow as they share with each other. As a theme, culture looks at the ways in which team teachers work at continuous learning and growth for themselves as individual professionals, and for themselves as a team. Some teachers are pursuing studies and degrees at colleges and universities, all are involved in workshops and staff development projects. Many teachers are now using the Internet as a source of new information, and as a means of connecting with other teachers.

Viewing teachers as learners, rather than experts, suggests the potential for membership and participation in a schoolwide community of learners (Johnston, Duvernoy,
McGill, & Will, 1996). In Graycliff, principal Julia Nielson shared her thoughts on school as a "learning community." She said:

School culture is transforming from a culture of isolation where teachers are working in isolation from each other to a culture of collaboration and teamwork. If truly your school is a learning community, the learners are not just the students. The learners are everyone in the culture of the school. And for us to be effective learners we know that learning takes place in a social context. We learn best when we are in collaboration and dialogue with others. When we get new content knowledge, we have to be able to manipulate that new knowledge somehow, and manipulate it when you have an opportunity to dialogue with a colleague about it and talk about it and share ideas. If everyone looks at it this way, there can be a shift in the school community, to become what I call a culture of learning and inquiry. The goal of school culture becomes life long learning for everyone, not just the students.

Teamwork and continuous learning operate hand-in-hand. Team teaching is one way that schools can support a "culture of learning." Schmoker (1997) states, "According to every major study, the right kind of teamwork heavily favors improvement" (p. 562). Schmoker believes collegial effort can tap the rich resource of "occupational knowledge" to be found in our schools. McLaughlin (1992) concurs, highly collegial school settings support teacher innovation and learning.

Cranehill offers an example of an entire school staff trained and in-serviced in cooperation, collaboration, and teamwork. As the principal explained: "When we do staff development activities, we don't splinter out, we all take it together. That unity is so powerful. It's the school
team, the total team." At Cranehill, decisions are made by consensus, not by majority, which is important to building the school as a team. In order to accomplish this, the staff has had specific training in making decisions by consensus. The training and development of teaming skills at Cranehill has created a cohesive schoolwide team, as well as assisted in the formation and operation of teaching teams. Teaching teams at Cranehill reflect the schoolwide emphasis on team building and benefit from the skills acquired in schoolwide staff development activities.

At Spruce Elementary, I observed a staff meeting before the beginning of the school day. I was struck by the collaborative way in which the meeting unfolded. A teacher presented inputs that had been gathered from the staff regarding choices for an in-service day. Charts and labels were tacked and retacked until the group had narrowed it down to several possibilities. The principal later told me that she would abide by the staff's choice for the in-service theme. A team teacher noted that the style of the meeting reflected a new pressure from the district that teachers should work together collaboratively. This collaborative attitude takes the tenets of team teaching, a classroom based endeavor, and moves it outward to the entire school. As teachers practice working collaboratively they see firsthand the efficacy of teamwork.
Interviews with teachers and principals revealed a candid desire to learn more about teaming. Simply stated, teaming is something teachers do because it works. Upon reflection, teachers and administrators see that it works and want to learn more about it. A principal said, "I'm learning, like everybody else." Another principal said, "I wish I knew more about teaming." And another said: "I'd like to learn from you, what you come up with. It's so powerful and we're just learning about it." The desire to know and understand more about team teaching is reinforcing to the future potential of teaming in schools. Team teaching offers a favorable setting for continuous growth and learning, and for the development of more knowledge about the process and practice of teaming. A principal told me, "Teachers are our best resource. I think we're missing the boat as far as tapping into that huge resource of teacher expertise." He recommends teachers do more teaming together to get the best of each others expertise. Another said, "I think teaming is really critical because I believe that if you don't team you're not getting the benefit of others inputs." A teacher shared, "Teaming expands what you do well and helps you work on what you don't do well." Another concluded, "Education should be all of us learning together."
Drawbacks

Although the data analysis and the review of literature share an overwhelmingly positive presentation of the practice of team teaching, a few negative indicators are noted as possible drawbacks. A recurring comment by team members was the sheer amount of time required for coordination with a team partner. A teacher said, "When I taught by myself, I didn't have to check with anyone, I just came in and taught." Team teaching requires shared planning time for the purpose of coordinating the team, time that is additional to individual preparation. Providing co-planning time for teams is an issue for principals in designing the school schedule.

A teacher described another area of concern, communication. She said, "You don't assume anything. You must talk about it." Team members endeavor to be constantly cognizant of each other, their students, and parents. Another teacher commented, "You have to be so much more aware than if you were teaching on your own." As a cooperative venture, teaming requires clear ongoing communication. The team's process of making choices between alternatives may not always produce the best and most satisfying decisions. The Northern Nevada Writing Project Teacher-Researcher Group (1997) points to the issue of compromise and the possibility of too much or too little
compromise having a negative affect on the team's functioning.

Kruse and Louis (1995) indicate as a drawback to teaming the tendency for teams to undermine the ability of the whole faculty to deal with the business of the whole school. Strong identification with the team competes with connections to the larger staff and school. In the study, a principal made this comment about her fifth grade team:

Sometimes I have to corral them because they are very independent people, and they teach to independence. I have to remind them that fifth grade is not a cottage industry. They do this incredible fifth grade fund raiser selling pizzas. But our general fundraiser, the big one, kicks off tomorrow, and I expect them to participate as much as any other classroom. That's a rub, because in the past they haven't always participated in the schoolwide functions.

Another principal spoke of his effort to keep his staff cohesive and to avoid elite status for team teachers as contrasted with more traditional teachers in the school. He said, "We wanted teamness in the entire school, so we developed other teams that include a mix of both." An example of the "mixed team" is when all teachers at a given grade level, whether team or traditional, meet to plan and work on curriculum and activities. In spite of the drawbacks mentioned with regard to team teaching, those involved overwhelmingly believe in the efficacy of the practice for teachers and for students.
Research Questions

Returning to the research questions stated earlier, the following responses emerged from the study:

1. What leads teachers to form collaborative teams?

Teachers in the study said that the idea to try teaming came to them naturally, the result of experiments in joint ventures with compatible colleagues. Small trial steps at the beginning led to larger undertakings. Six of the ten teams in the study began in this way, originating at the grassroots level from the interest and desire of the teachers.

In the other four teams, administrative pressure played a role. At two sites, overcrowded conditions and a scarcity of additional classroom space necessitated doubling up teachers as teams. In these situations, teachers had some choice in the selection of a compatible partner, but not a choice about teaming. Two other teams resulted from a schoolwide emphasis on teaming and collaboration, and again, partners had some degree of choice in participation and in selection.

Teachers themselves are the most important element in the decision to create a team. The idea to team may come naturally in the course of working alongside like-minded teachers or it may be prompted by administrative interest. Since teaming represents a close interpersonal connection
with another human being, all teachers in the study spoke of
the importance of choice in the selection of a partner.

2. What facilitates and makes teams operational?

As an operational strategy, teaming fits within the
confines of standard school procedures, curriculum guides,
and time schedules. Teaming does not conflict with general
guidelines and expectations for teachers working in school
classrooms. A principal commented, "Even in a fairly
traditional school, you can still develop teacher teams."
The vague generalizations listed in school philosophy
statements do not directly address teaming, neither
promoting nor inhibiting the practice. Another principal
said, "Teaming fits in. It's one of the missing pieces we
need to put into place."

Gaining administrative approval was not a problem for
teachers forming teams, except for those desiring to create
job-share teams. Job-sharing teachers divide one job into
two parts necessitating the creation of personnel policies
regarding salary and benefits. Job-share teams became
pioneers, participating in the process of shaping school
district policy to cover all questions regarding the sharing
of one teaching position by two individuals. A principal
observed, "One of the important things with a job-share is
both individuals have to have an equal and strong commitment
to making it work."
While all principals in the study favored the practice of teaming, the degree of active encouragement varied considerably. A teacher said, "For teaming to happen, there has to be an opportunity to create it. I say it's a matter of luck and circumstance." All principals provided the "freedom" for teachers to do their jobs without setting limitations. The potential influence of a principal became clear at those sites where all forms of teaming were encouraged and teaming had become a schoolwide theme. Principals who strongly favor teaming reveal collaborative cooperative thinking in their approach to all aspects of school leadership, and set an impressive example for staff and students. Principals can build schedules with common planning time for teams and for grade level teachers.

New team teachers contributed generously of their own time in the spring and summer, coordinating and making plans for the team. All aspects of classroom organization, discipline, and procedures were discussed and decisions made as the team laid plans for the coming year. A new team teacher said, "We had a lot of logistics to work out." In the study, new teams were observed working hard at the continuing development of day-to-day strategies. New partners treated each other with noticeable tact, respect, and kindness. Established teams were more relaxed, having worked through the preliminary decisions leading to a mutually shared foundation. The flow of interaction among
established team members was markedly swift and synchronized. They appeared to read each other's minds, deciding what was next by a knowing nod or glance.

3. How does teaming improve teaching?

Teaming improves the working life of teachers in three major ways: increased professionalism, enhanced job satisfaction, reduced stress and isolation. All team teachers in the study shared the belief that working with a partner leads to improved pedagogy and to greater job satisfaction.

The improvement of pedagogy within the team results from sharing and working with another qualified professional. A teacher commented, "Teaming has expanded my teaching." All team teachers talked about how teaming provides a wellspring of ideas, and the setting for cultivating and building better ideas. Team teachers learn and benefit from one another, and have the unique opportunity to watch one another teach. Team members are conscientious in their responsibilities because they are directly accountable to one another. A principal said, "My team teachers have to be accountable, not to the principal, not to the superintendent, but to each other." All team teachers mentioned the heightened accountability provided by the team setting and how it leads to an increased sense of professionalism. Teachers believe their teaching performance is optimized by association with the team.
Teaming increases job satisfaction due to the fulfillment of human affective needs and to the reduction of job stress. Team teachers said they like and enjoy coming to work each day. In a setting dominated by young children, sharing the workday with another adult makes life in the classroom much more satisfying and pleasant. Team teachers find positive energy in knowing another human being is there for them. Teaching is acknowledged to be a stressful occupation, but team teachers said the stress is reduced when you share it with another adult. In the team setting, teachers are more relaxed because they rely on each other. Having two adults eases the handling of stressful situations related to students and parents.

4. How does teaming improve learning?

Although I attempted to assess how teaming affects learning by collecting empirical data, this approach did not bear fruit. Teaming is one of a multitude of influences that affect test scores; it is not possible to delineate teaming from other influences. Anecdotally, all principals and teachers affirm the positive influence of teaming on student learning.

Team teachers in the study see benefits to student learning in the presence of more than one teacher. The learning environment is richer and more interesting for students when more than one person is teaching. Students gain from experiencing more than one teaching style,
personality, and approach. The number of teaching styles multiplies and is more apt to mesh with the varied learning styles of students. In the study, principals and teachers expressed the view that children of all ages benefit from teaming, including the youngest students as well as those moving on to middle school or junior high school.

All team teachers spoke of how students were less likely to "drop through the cracks" with the attention and energy of two teachers. Students do not go unnoticed in team settings because two adults are watching and helping. Two resources are available to the child. The "teachable-learnable" moment is less apt to be lost. Discipline tends to be smoother and more effective with two consistent adults. A principal noted, "The team keeps kids motivated and involved, and there is less disruptive behavior."

Teachers working together have the ability to focus clearly on student behavior and performance, and to verify perceptions by comparing thoughts with team members. A teacher reflected, "Teaming provides me constant reinforcement about all the changing problems with kids."

Teaming illustrates the value of building community and becomes a model for people working together. A principal shared, "We
need to be a model for students, and we need to be a model for ourselves. We have to be into team building. If it's good for kids, it has to be good for us." Another principal added, "We have taken cooperative learning and applied it to teaching."

Team teachers often divide the curriculum among themselves in terms of personal interest and expertise. This strategy reduces the breadth of lesson preparation and allows each teacher to concentrate on a narrower band of subjects. The result is improved learning experiences for students, and more active hands-on lessons. A teacher said, "I teach better math lessons now because it's the focus of my concentration." Team members have the energy and resources to develop and utilize an emphasis on active learning, as opposed to passive textbook and worksheet exercises. Active learning engages the student in exploring, thinking, constructing discovery based knowledge. Another characteristic of active learning is involving students as cooperative group participants. A teacher commented:

Because active learning is project based, students learn to do things together in groups. We are no longer in the industrial age where the individual sits there and has his own little bolt to put into place. We do things as groups now.

Although there is limited assessment data available that measures student learning quantitatively, teachers and principals were unanimous in their agreement that team
teaching improves student learning by providing more active learning, multiple teaching styles, and attentiveness to student needs. The assessment instruments currently in place indicate that teaming is not harmful to student learning or to student achievement. A principal said, "If we can't see or prove that teaming harms children, but instead see its positive contribution, then it's a good thing to do." Another principal said, "I don't know how you're going to measure the affects of teaming on kids. That's not really why we're here." At all teaming sites, the assessment data available did not delineate the influence of teaming as distinct or separate from other influences.

5. How do educational leaders initiate and support teaming?

In this study, all principals viewed teaming as a favorable practice and acted to encourage the teams. All principals expressed positive attitudes toward the team and teaming, and offered no resistance or hindrance. Principals gave a high priority to providing shared planning time for teams. At three sites, the principal championed all forms of teaming and purposefully worked in that direction with the staff, endeavoring to build an entire school based on the concept of teaming and collaboration. The impact of leadership that motivates and guides the development of collaboration, cooperation, and teaming on a schoolwide
basis cannot be underestimated, as it influences and reveals itself in all aspects of school culture. Teaming is an avenue for improving the total school environment. It operationalizes concepts of teamwork and community. A principal observed, "There's an atmosphere as you go into the school, and you can sense it. Teachers, students, parents—all are happier."

If principals do not actively promote the practice of teaming, who will do so? The answer rests with classroom teachers who have the perspicacity to initiate beginning steps into teaming ventures. When teaming originates at the grassroots level, it rightfully contributes to teacher empowerment and attests to the leadership role of classroom teachers as agents of positive educational change.

Summary

This chapter reported results in terms of four major themes: Team, Students, Support, Culture. Team is the heart of the study, teachers working together in teams. The essential reason for creating teams is for the improvement of teaching and for increased student learning. The second theme, Students, provides both the reason for and object of the team's existence. Students benefit positively by connection with the team. The third theme, Support, consists of other entities in the school setting that help facilitate the teams existence: principal, staff, school district. Teaching teams cannot operate without support in
the school milieu. The final theme is Culture, the spirit of learning fostered by teams. Teaming provides a context rich in potential for a culture of learning for all participants. Chapter 5 presents conclusions and considerations based on analysis of the findings.
CHAPTER 5
SUMMARY, CONCLUSIONS, AND CONSIDERATIONS

School improvement depends on the development of pedagogy at the classroom level. As front line workers, teachers are key to positive changes in classroom practice. Teachers are at the center of the teaching-learning interaction; they have the power to select and develop improved classroom practices. Team teaching provides a classroom based strategy for the improvement of teaching and for the improvement of student learning. Teaming is supported by school change models as a means for enhancing the educational lives of both teachers and students. This study concurs with reformers (Arnstine, 1995; Bacharach, 1990; Fiske, 1991) and presents team teaching as a vehicle for educational improvement.

Summary

Chapter 4 reported results as four themes: Team, Students, Support, Culture. Team is the central theme and focus of this study. Students, the second theme, provide the purpose and object of the team. Support, the third theme, consists of supporting environmental influences. Culture, the fourth theme, is the pursuit of learning and professional growth by the team. Following is a brief summary of each theme.

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The team is the heart of the study. Forming a team is a way for teachers to join together with colleagues for the purpose of improving the educational program for students, as well as for enhancing the workday life of teachers. In the study, teaming takes many forms: grade level teams, mixed grade level teams, multi-age teams, specialist teams, and job-share teams. Team teachers believe that the team approach results in improved teaching, and in greater job satisfaction. Team members divide up the tasks and the curriculum according to the strengths and preferences of the individuals. Regular planning time is essential to teams for the purpose of coordinating and planning. Teams must come to agreement about classroom management and discipline so their approach is uniform and consistent. Team teaching is a dynamic working relationship between professionals. Personality factors and attributes contribute to the compatibility of the partners. Working cooperatively requires the ability to share, and to give and take. Synergism builds something greater and stronger than the sum of individual efforts.

Students are the purpose and object of teaching teams. Teachers cannot exist without students. Teaming provides many benefits to students and enriches their learning opportunities. Because more than one adult is watching and interacting, students are less likely to drop through the cracks. Multiple teaching styles connect with the multiple
learning styles of students. Teaming lends itself to more projects and activity based learning. Teachers and principals believe that teaming is beneficial to student learning, however, current assessment measures only verify that teaming is not detrimental. So many factors influence student performance that it is not possible to separate teaming as a single factor. As team taught students go on to middle school or junior high school, the feedback received by the elementary school is positive and complementary, students are well prepared. Parents view team situations as favorable and desirable for their children, and appreciate the benefit of the child experiencing the expertise of more than one teacher.

Support provides the backing needed for the creation and continuance of teams. Supporting members of the school environment are the principal, the staff, and the school district. Principals in the study take a positive view of teaming, and do not provide barriers. Some principals work purposefully toward the development of more collaborative ventures and more teaming. Principals are careful that their communication is with all members of the team. They do not assume that one person will pass it along to the other. Despite efforts to build good relationships with staff members, occasional undercurrents are directed at teams. The vague generalized language of school district philosophical statements does not directly address teaming,
but leaves it as admissible. School districts develop and have policies for job-sharing because of employment and benefit issues.

Culture is the means by which team teachers pursue learning and professional growth. Teaming itself provides a context rich in possibilities for continuous learning. Teachers provide each other with an immediate learning resource. As a cooperative model, teaming sets the stage for ongoing and continuous learning for teachers. Other development opportunities come by means of the Internet, workshops, in-service events, and college coursework. Team teachers and principals demonstrate a receptivity to continuous learning.

In contrast to an overwhelmingly positive presentation, a few negative indicators surfaced and are noted as possible drawbacks to team teaching. The additional time required for team planning and coordinating may become burdensome to team members, and may be difficult for principals to provide. Maintaining constant communication with a partner places a large awareness requirement on individuals. The role of compromise in making team decisions may weaken the strength of determinations. Strong identification with the team may compete with connections to the larger staff and school. In spite of the drawbacks mentioned with regard to team teaching, those involved overwhelmingly believe in the efficacy of the practice for teachers and for students.
The primary objective of this study was to examine teacher teams in practice and to look at the teams from the teacher's perspective. Analysis of the data led to the following conclusions.

Conclusions

Teacher Empowerment

All teaming begins with an idea, an idea that joining and working together will create something better than working alone. Team teachers in the study indicated the idea came to them naturally, the result of working in proximity to someone who shared and saw value in the idea, and who was willing to try a few small collaborative ventures. Modest voluntary beginnings led to more team ventures, and to the creation of a stable ongoing team. This was the most common path to teaming, an idea that sprouted in compatible minds. Willingness to risk the venture brought the idea to fruition. Six of the ten teams studied began in this manner, with the team arising primarily from the interest and desire of the teachers. Team formation occurred as a natural progression of interaction between the partners. In terms of organizational structure, the idea and venture into teaming began at the grassroots level with classroom teachers being the primary instrument of change.

In the other four teams, administrative pressure played a role. When burgeoning student numbers caused overcrowded
conditions and a scarcity of space, the solution in two locations was to double up teachers as teams, two teachers with one large student group in a single classroom. In these situations, teachers did have some choice in the selection of a compatible partner, but not a choice about teaming. Two other teams resulted from a schoolwide emphasis on teaming and collaboration, and again, partners had some degree of choice in participation and in selection. In schools where principals emphasized teaming, the recommendation of Johnson and Johnson (1989) became reality. Johnson and Johnson advocate leadership that provides a model for cooperative interaction and that structures the organization accordingly. In these school settings, teachers gain the opportunity to practice working cooperatively together, and to develop collaborative skills. In the process, it becomes more natural to adopt cooperative modes of thinking and doing.

Team formation as a voluntary venture reflects a basic human premise: people tend to support that which they help to create, people tend to resist that which is forced upon them (Zadra, 1995). The optimum situation is for teaming to originate from the motivations of teachers. If the impetus for teaming begins with administrative recommendations, teachers need time to consider possible implementation. Teachers are the most important element in the decision to create a team.
Pascale (1990) described change as flourishing in a "sandwich" where the pressure comes both from management at the top as well as from workers at the bottom. The "sandwich" suggests the appropriateness of principals exerting some influence toward team concepts while teachers take their own initiating steps. For teaming to become a more prevalent practice, the interest and impetus will need to flow from both sides of the "sandwich." Principals provide leadership and create a school environment favorable to team thinking and to the formation of teaching teams, while teachers seize the opportunity to work with a colleague and to develop their own teams. Because teaming creates an interpersonal relationship of powerful day-to-day significance, the matter of choice becomes crucial to team success. Teachers must have the choice to team or not to team, and the ability to choose a team partner. Favorable school environments with compatible people provide fertile settings for the initiation of team teaching. Teaming is a strategy that calls to teachers to dare to take the first steps in designing a positive future for schools.

Inclusion

In 1990, the passage of federal law known as the Individuals with Disabilities Education Act, mandated that students with disabilities were no longer to be excluded and separated from regular classrooms, but were to receive an appropriate education in the least restrictive environment.
The law stated that students with disabilities must be educated with students without disabilities to the maximum extent appropriate (Keefe & Davis, 1998). The process and practice of educating students with disabilities in the regular classroom became known as inclusion. At the local level, inclusion forced traditional classrooms to open their doors to serve and support the needs of all students. The door opened as specialists and paraprofessionals began to serve special needs students as part of the regular class group. The change was abrupt and as one principal said, "met with some bitterness." There was little choice, classroom teachers were mandated to work together with the new groups of adults and students in their rooms. The door not only opened, it became a revolving door as adults and students traveled in and out of classrooms throughout the school day. The traditional classroom teacher was no longer the sole professional in the room, no longer isolated from the rest of the school.

Inclusion created a change in ways of thinking and doing. School personnel who had not previously done so, began to work collaboratively in the classroom, and began to experience the rewards of shared efforts. Almost every principal talked about inclusion as a milestone in the development of teaming, and how it marked the beginning of a new era of collaboration. In discussing types of teaming in the building, every principal referred to the ongoing
teaming between regular classroom teachers and special-education and title program teachers as an example of a team situation. In terms of longevity, only one teaching team in the study predated the decade of inclusion. Inclusion has played a significant role in pushing the concept of teaming into day-to-day classroom practice. The development of the practice of inclusion has required collaboration among teachers and specialists in order to provide services to all children (Welch, 1998).

Inclusion fulfills Gibboney's (1994) criteria for judging the efficacy of school reform. Including all children in the classroom is democratic in intent and provides equity for all students. Intellectual aspects are also fulfilled as "special-education teachers gain better knowledge of the subject matter, and the regular classroom teacher learns how to slow down and to be more thorough in covering material" (Northern Nevada Writing Project Teacher-Researcher Group, p. 6). All students benefit from team learning arrangements.

**Improved Teaching**

Teaming positively influences the working lives of teachers, and results in increased professionalism. As two or more teachers work together, they share their expertise and build better teaching strategies. Apart from team situations, few classroom teachers ever have the opportunity to watch another teacher teach (Northern Nevada Writing
Project Teacher-Researcher Group, 1997). The potential for learning by watching another professional in action goes untapped in traditional school settings (Maeroff, 1993). Given the opportunity to see and learn from the classroom practices of another teacher, participants in the study reported that their own personal approach to teaching became richer, and capitalized on more ideas and variations. Team teachers select, cull, and cultivate teaching approaches and strategies based on ongoing observations of team partners. Every team teacher spoke of a heightened sense of professionalism resulting from membership in the team and commitment to another teacher. Within the team, trust between partners assures that plans and tasks are not left undone. Every teacher talked about being reliable in commitments to the team, and how this "makes me a better teacher." Professional accountability is built into the team structure, partners are accountable to each other. Team members strive to do their appropriate share and more. Principals believe that teams do more and accomplish more together than members would individually (Schmoker & Wilson, 1993; Wiles & Bondi, 1993).

Because team members divide up the tasks and curriculum according to the strengths and interest of the partners, it means that each individual is able to concentrate on a smaller shorter list of "chores". At the elementary level, the scope of the entire curriculum is enormous for the
individual teacher. To not have to prepare and plan in all areas is a favorable aspect of teaming. The team teacher gains the time to concentrate in fewer areas, and to develop those areas more fully. Also, taking the parts of the curriculum that reflect personal interest and background is to capitalize on the intellectual strengths of individual teachers (Northern Nevada Writing Project Teacher-Researcher Group, 1997).

Teaming leads to improved job satisfaction. Teachers in the study were upbeat, enthusiastic, and positive about their work lives. Morale was high. Teaming adds a new dimension to the basic act of going to work each day. Team members said they look forward to being with their partners and to sharing the workday. In a work setting dominated by children, the resource of another caring adult professional who is equally responsible for the class group cannot be minimized. Teachers are quick to say that teaching is a highly stressful job, but add that teaming reduces the stress level because the pressure is shared. All teachers in the study believe teaming leads to stress reduction and to improved job satisfaction. These findings are consistent with the work of Maeroff (1993), Senge (1990), and Sergiovanni (1989), who view teacher teams as a positive and enhancing influence on the practice of teaching.
Improved Learning

Teaming has a positive influence on students. When two or more teachers team together, the approach becomes one of more active learning, and more projects. This happens as the energies of more than one teacher combine and contribute to the total program. In active learning, students become more quickly engaged and interested, learning is easier and more enjoyable (Hess, 1992). This approach is more favorable to student learning and retention than monotonous worksheets and papers. When students are motivated and involved, energy is channeled in a positive direction. Disruptive behavior diminishes. Dewey (1938) championed active learning as more meaningful for the child's growth and development. Dewey's philosophical influence is again validated by the increased active learning experiences available to children in team taught classrooms, as well as by the positive engagement of children in activity-based learning tasks.

Students benefit by working with more than one teacher. Many teachers said it's like having two parents, the child gains the resources and attention of both. At a time when many students do not have two parents at home, having two adults in the classroom takes on additional meaning. It grants the child an experience parallel to that of working with two parents. Gardner's (1983) work on multiple intelligences suggests the appropriateness for teachers to
use multiple teaching approaches in the classroom. Gardner describes seven distinct intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal. All individuals develop and practice a mixture of styles as they live and learn (Silver, Strong, & Perini, 1997). Each person utilizes a slightly different profile of the seven intelligences in the process of thinking and learning. Classroom teachers should use a rich repertoire of approaches in order to meet the varied intelligences presented by students. In team settings, the potential for multiplicity of teaching approach is far greater than in traditional settings. By teaming up with a colleague, teachers can increase the number of multiple intelligences curricular formats in use (Campbell, 1997). Commenting on the utilization of his theory in school settings, Gardner (1997) states, "Multiple intelligences can be an extremely useful tool—or better, partner—in the process of creating excellent schools" (p. 20).

All team teachers say that teaming prevents children from going unnoticed, from "slipping through the cracks". Two or more teachers are watching, noticing, attending to what the child needs. Team teachers say that the gain in student learning is in terms of capturing the "teachable-learnable" moment.
Cooperative Learning Link

Team teaching takes the guiding principles of cooperative learning for students and applies the same ideas to teachers. If cooperative settings provide a structure that is good for students, the same structure is also good for teachers (Johnson, Johnson, & Holubed, 1990). A principal elaborated:

Teaming is to the benefit of the whole school. When you put teachers together, they talk about education, and they plan together, and they keep people up. It's the old cooperative learning, four heads are better than one. Four brains are better than one.

Students witness the positive interaction between two adults, and see a model of two people sharing and cooperating. A teacher said:

Teaming gives me so many more ideas and helps me to work with others. We pass that on to our students. They see us together and realize that a large part of life is getting along with other people.

Bandura's (1977) development of social learning theory attests to the value of acquiring useful knowledge by means of modeling. According to Bandura, "Most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, later this coded information serves as a guide for action" (p. 22). As students observe teachers demonstrate cooperative behaviors, a powerful model is provided for incorporation into the interactions of students.

Teaming for teachers parallels cooperative learning for students (Slavin, 1990). Both offer what Dewey (1938)
called a "social mode" of working whereby participants are members of a group. Whether teachers or students or a mixture of both, individuals derive support, direction, and motivation from one another as group members (Fullan, 1993).

At Cranehill, principal Rawlins described how his school was reorganized six years ago as a "totally cooperative collaborative school." Teachers were trained in the methodology of cooperative learning including team building, a necessary element in the development of cooperative learning groups. Only recently did the staff choose to take the next step and apply the tenets of cooperative learning for students to themselves and create teaching teams. In retrospect, Rawlins said, "I wish we had done this a long time ago, we didn't realize the importance of teams in the total overall picture."

Both team teaching and cooperative learning foster a sense of community for members of the group. As related by Westheimer and Kahne (1993), the strengthening of a sense of community is created through interaction, mutual dependence and identification with the group. Both team teaching and cooperative learning contribute to the development of a positive and supportive school community (Schmoker & Wilson, 1993). The relationship between team teaching and cooperative learning as parallel models suggests the two are mutually reinforcing to future development. The commonality of underlying human values indicates a shared wholesomeness.
of purpose, one that will continue to benefit teachers and students (Slavin, 1990).

Culture of Learning

Senge (1990) describes the "fifth discipline" as the ability for organizations to become continuous learners. Teaming develops a true culture of learning in the school. Within the team, the desire to learn and grow is paramount. Open-mindedness, flexibility, the willingness to learn from others, characterize team members. Each member benefits from the ideas and inputs of others. Teachers grow as they observe the teaching practices of their partners (Fullan, 1993). As a principal said, "Teachers are our best resource. Teams tap into that huge resource of teacher expertise."

Teaming provides a community context for teacher inquiry and learning. Merenbloom (1996) describes the team model providing new dimensions to the learning process and a sense of family and community. Glasser (1986) and Sergiovanni (1994) propose improving schools through commitment to the values of human relatedness and to the development of community. An old adage says "He who teaches is twice taught." Team teaching provides an open learning experience for everyone, students, teachers, assistants, aides. In team settings the mindset of individuals shifts from "me" to "we", from individual expertise to collective intelligence. This change of mindset represents a paradigm
shift of major proportions, one that characterizes the present era in education, and one that will significantly influence the future. Team teaching offers a means for the development of education's most cherished goals, the cultivation of community and the development of a true culture of learning.

In consideration of the above conclusions, implications of the study prompt the following:

Considerations

The study points to considerations for different categories of school personnel involved in team teaching: teachers involved in teaming, potential team teachers, and principals. Due to the study's small number of participants and the limited geographic area, broad generalizability of the findings is precluded. However, the words and features of the individuals chronicled here are to be observed and considered for application in other educational settings.

For Teachers Involved in Teaming

The study validates the practice of teaming as a positive teaching strategy. Teachers already involved in teaming can see themselves reflected in this study. Validation of the practice is offered, and the opportunity to make comparisons with other functioning teams. As a growing practice and one that promotes a culture of learning, the development of teaming strategies is ongoing and continuous.
Team teachers provide an exemplary model for the application of teaming to the practice of teaching. Teachers in the study were credentialed school district employees who aligned themselves with another teacher for the purpose of improving both teaching and learning. The team model speaks to regular teachers everywhere, and suggests a basic strategy for improving schools beginning at the classroom level. The possibility for school change beginning at the grassroots level of the classroom empowers teachers and creates new leadership opportunities.

For Potential Team Teachers

The choice to team represents an opportunity for teacher initiative. Teaming offers a positive professional alternative to the traditional structure of teaching, while operating within the confines of standard school curriculum guides and time schedules. Teachers thinking about teaming can see how cooperative arrangements positively benefit day-to-day worklife in the school. Teaming is a choice worthy of serious consideration by regular classroom teachers. The positive features of teaming are so strong that many participants in the study said that now they cannot imagine teaching any other way.

Finding a compatible partner is essential to success. All participants in the study pointed to partner compatibility as a major factor in the success of the team. When team members share personality types, philosophies, and
basic beliefs about classroom management, the potential for team success is greater. All team members in the study were acquainted with each other prior to formation of the team, and had choice in selecting their partner.

For Principals

Design organizational structures that make it necessary for staff members to work together. Principals in the study attested to the significance of organizational structures that required staff members to work together. As teachers gained practice in working collaboratively, cooperative skills developed and effectiveness at joint ventures increased. Principals embodied in their own demeanor and attitude a cooperative spirit that infused and inspired staff members. In the study, many of the team teachers referred to an administrative "push" toward the development of teaming. As school leaders, principals have the ability to envision what is best for the school and to share that vision with information and models to staff.

Arrange the schedule to provide shared grade level planning time for all teachers. Creating a schedule with shared planning time at each grade level is an important first step toward collaborative efforts. Principals in the study gave a high priority to providing shared planning time.
For Superintendents

Expand personnel policy to include job-sharing. Teachers working as a job-share team contribute generously to the district by giving more than two halves of time and energy to the district. Providing the opportunity to job-share is supportive of working mothers with young children and also supportive of individuals with mild physical handicaps.

Encourage team building practices. The "push" from the top can originate with the superintendent. In one location studied, the new superintendent began the year with an administrative retreat on team building. Principals and other administrators spent two days learning strategies to be a team. This emphasis on teaming from the top school district office will have influence in the encouragement of teaming. As a principal said, "We know our marching orders."

Research Suggestions

Additional research is needed to pursue the multiple facets of team teaching. Continued investigation of the human element in teaming will provide more data relevant to teachers and principals considering the practice. Seeking motivational clues will give insight into the issue of instigating positive school change. Looking at teaming as a paradigm shift suggests a rich vein of research potential. Seeking and developing assessments that will quantitatively
verify increased student learning in team settings is another area calling for additional research.

Conclusion

Team teaching offers a paradigm shift in education. Teachers working together in partnership move away from the tradition of individualism and isolationism and establish a new community spirit of learning for themselves and for students. This new cooperative spirit reflects the recognition of cooperation as an essential work trait for people in the "real world." Experiencing cooperative ventures in school offers students the ability to cultivate and develop the real skills needed for the adult world of the next century. A principal said:

All the data is saying that kids have to be prepared to go out and be a team player. If we don't teach that to kids, then we're not doing our job. We have to rework how we see our job.

Teaming is based on human values of connectedness and interdependence. Anthropologically, human beings have a strong predisposition to work in concert with each other. Human beings have survived as a species due to the ability to work together. Psychologically, the need for connection to one another is basic and must be satisfied before moving to other need levels (Maslow, 1965). Schooling will improve if it offers first a sense of community that satisfies and sustains this basic human need for connectedness (Glasser, 1986).
Teaming can begin with small steps and move to larger ones. One team teacher told me that her first venture into teaming was the sharing of reading lessons. Small beginnings can provide the basis for larger scale endeavors. As a new paradigm, teaming requires a change in thinking, it dares traditional teachers to give up single control and ownership of the classroom. The benefits of risking this change are the essence of this study.

Predictions for the future include the propriety of the continuing development of teacher teams. The practice of inclusion will continue to provide teaming situations in regular classrooms with regular classroom teachers. New teachers will have received training in collegiality and cooperative learning in their education studies at the university level. The old mode of self-sufficient independent teachers will shift to the new paradigm of shared cooperative professionalism.

Are two heads better than one? Teachers who have banded together to create teaching teams think so and leading writers in education agree (Barth, 1990; Johnson, Johnson, & Holubec, 1990; Schmoker & Wilson, 1993) And, the national organization that establishes the standards for teacher preparation coursework in the universities, NCATE, believes so strongly in the new paradigm that preparation in teaming and collegiality is now on their recommended list of coursework for future teachers (Wise, 1996). Teaming and
collegiality are clearly the trend of the future. This is a paradigm shift of major proportions, one that will significantly change the structure of schooling (Bonstingl, 1992; Patterson, 1993; Schmoker, 1997; Westheimer & Kahne, 1993).

Teaming represents a favorable model for cooperative ventures in all parts of schooling, and represents a way of thinking and doing that brings people success in all aspects of life. People working together learn more and accomplish more than people working separately. Two heads are better than one.
APPENDIX A

INTERVIEW PROTOCOL TEACHER

I am involved in a study at the University of Montana that is looking at team teachers. I am seeking to gain an understanding of how the teaming process gets started and how it influences the lives of teachers and students. I will begin with some background questions.

1. Please describe the team teaching arrangement of which you are part.

2. How long have you been part of this team and how did you get the idea to do this? How did you start or begin?
   2a. Was there a pivotal administrator? Please tell about her/him.
   2b. Why do you continue the team?

3. In what ways has teaming influenced your life as a teacher?

4. In what ways has teaming influenced the lives of your students?
   4a. How has teaming affected student learning?
   4b. What do assessment scores indicate about student learning?

5. How do you two get together to plan?
   5a. How do you set your agenda?
       How do you prioritize the areas of planning?
   5b. How do you reach decisions?
   5c. What happens in a typical planning session?

6. To what extent are you and your team partner similar and/or dissimilar?

7. How do other teachers in your building view your team?

8. How does your principal view your team?

9. Would you recommend teaming to other teachers? Why?
    What advice would you give?
10. What do you believe is the future for teaming in schools?

11. Do you see a link between teaming and the philosophy of your school? (of your school district?)

12. Given the subject we have been discussing, is there anything you think I should have asked or that I have neglected?

13. Is there anything else you would like to tell me.
I am involved in a study at the University of Montana that is looking at team teachers and principals. I am seeking to gain an understanding of how the teaming process gets started and how it influences the lives of teachers and students. I will begin with some background questions.

1. Please describe the team teaching arrangements in your school.

2. How long have you been part of this team? How did you get the idea to do this? How did you start or begin?
   
   2a. What was your role in helping make the team happen?

   2b. Why do you continue the team?

3. In what ways has teaming influenced your life as a principal?

4. In what ways has teaming influenced the lives of your students?
   
   4a. How has teaming affected student learning?

   4b. What do assessment scores indicate about student learning?

5. How do you arrange planning time for your team teachers?

6. To what extent are your team members similar and/or dissimilar?

7. How do other teachers in your building view the team?

8. How do you as principal view the team?

9. Would you recommend teaming to other teachers and to other schools? Why? What advice would you give?

10. What do you believe is the future for teaming in schools?

11. Do you see a link between teaming and the philosophy of your school? (of your school district?)
12. Given the subject we have been discussing, is there anything you think I should have asked or that I have neglected?

13. Is there anything else you would like to tell me.
APPENDIX C

PARTICIPANT COVER LETTER

Nancy Zadra
5018 Orchard Ave.
Missoula MT 59803

Educator
Western Montana

Dear Educator,

I am writing in regard to my research study at the University of Montana on team teaching. In searching for answers to certain basic questions about teaming, I am interviewing teachers who are currently involved in a team. This study is part of my dissertation in the Department of Educational Leadership.

Would you consider giving an hour of your time for an interview? The questions are in a concise format and the time involved would not exceed one hour. I assure you that all information will be held in total confidence, and that as I compile the results of my interviews, neither names nor identities will be associated with any statements. When this study is completed, I will be happy to provide you a summary of the results.

Thank you very much for considering this request. I will be calling you in about a week to discuss any questions you may have, and to see if you are interested in participating in this study.

Sincerely,

Nancy Zadra
Graduate Student
APPENDIX D

PARTICIPANT COVER LETTER

Nancy Zadra
5018 Orchard Ave.
Missoula MT 59803

Principal
Western Montana

Dear Principal,

I am writing in regard to my research study at the University of Montana on team teaching. In searching for answers to certain basic questions about teaming, I am interviewing teachers and principals who are currently involved in a team. This study is part of my dissertation in the Department of Educational Leadership.

Would you consider giving an hour of your time for an interview? The questions are in a concise format and the time involved would not exceed one hour. I assure you that all information will be held in total confidence, and that as I compile the results of my interviews, neither names nor identities will be associated with any statements. When this study is completed, I will be happy to provide you a summary of the results.

Thank you very much for considering this request. I will be calling you in about a week to discuss any questions you may have, and to see if you are interested in participating in this study.

Sincerely,

Nancy Zadra
Graduate Student

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APPENDIX E

TEAM PLACES AND NAMES


Badger Point School, Badger Point, Montana, 421 students, PK-6. Principal: Barb Halvari. Team: Marne Fulton & Sharee Shunaro. 4th grade. 2 rooms.


Caniya School, Caniya, Montana, 109 students, K-6. Principal: Dr. Stan Morris. Team: Glenda Cordero & Cami Oberon. 3rd grade & 4th grade. 2 rooms.

Woodville Elementary School, Woodville, Montana, 555 students, PK-6. Principal: Dr. Sharon Drake. Team: Meg Stone & Carol McCoy. 6th grade. 2 rooms.

REFERENCES


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